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Monks and Markets: Durham Cathedral Priory, 1460-1520

Miranda Threlfall-Holmes

PhD Thesis, University of Durham, History Department, 2000

Abstract

This thesis uses the obedientiary accounts of Durham Cathedral Priory to analyse the consumption and purchasing of the priory between 1460 and 1520. A combination of qualitative and quantitative methods of analysis, including use of a database, have been employed to enable the amount of evidence available to be fully exploited.

The administrative system which produced the accounts on which this study is based is first considered, focusing on an analysis of the obedientiary accounts for 1480/1 to illustrate the different and overlapping responsibilities of each obedientiary. The population of the priory and the reliability of the accounts are also discussed.

The issue of monastic diet is then addressed, and the diet at Durham is compared to that found by Barbara Harvey at Westminster. Whilst issues of taste were clearly a factor in the foodstuffs bought by the priory, other considerations such as price, availability, social status and fashion are also seen to have played a part in the purchasing choices made. The extent to which these factors influenced the priory's purchasing decisions is the second major theme looked at here, and three case-studies (of grain, luxuries and cloth) illustrate the varying importance placed by the priory on such factors for different commodities.

The third section of this study looks at the strategies and techniques employed by the priory in purchasing the chosen goods in a pair of chapters dealing with the two main ways in which the priory acquired goods: via tenurial relationships, or via market transactions. Finally, the suppliers of the priory are considered, and it is seen that the priory bought goods from a wide variety and large number of individuals, with many of whom it had wider relationships. It is concluded that the priory was a sophisticated consumer in a region in which competition thrived.

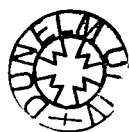


Monks and Markets:

Durham Cathedral Priory, 1460-1520

Miranda Threlfall-Holmes
PhD Thesis
University of Durham
History Department
2000

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20 MAR 2001

Monks and Markets: Durham Cathedral Priory, 1460-1520

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Declarations

Those parts of this thesis which refer to the priory's purchases of imported goods draw to a limited extent upon work submitted by the author for the M.A. degree of the University of Durham, and are footnoted as such in the text of this thesis.

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Chapter One

Introduction: The Administration and Accounts of Durham Cathedral Priory

Introduction

Durham Cathedral Priory was a Benedictine monastery, founded in 1083 to provide a community to serve and protect the relics of St. Cuthbert which had been brought to rest in Durham, and dissolved by Henry VIII on the last day of 1539. Throughout the 456 years of its existence the community produced copious amounts of documentation, from accounts to charters, letterbooks to estate records. The survival to the present day of so much of this has meant that the Durham archives have long been recognised as one of the most important collections of medieval monastic records in Europe. In particular, the obediatory accounts have survived in unique numbers and in exceptionally good condition. The most important, the bursars' accounts, have survived from as early as 1278, and exist in substantial series from the fourteenth, fifteenth and early sixteenth centuries.

Much use has been made of this material since extracts from the various account rolls were published by the Surtees Society at the end of the nineteenth century.¹ In particular, the Durham archive provided much of the source material for Barrie Dobson's book on Durham Priory in the first half of the fifteenth century, which looked at all aspects of the priory's life from education to politics and from economy to religion.² Richard Lomas used the obediatory accounts and estate material in his work on the estates and estate management policies of

¹ J.T. Fowler, ed., *Extracts from the Account Rolls of the Abbey of Durham, from the Original MSS*, 3 vols., Surtees Society, 99 (1898), 100 (1898), 103 (1900).

the priory, while Margaret Bonney made substantial use of the priory records in her survey of the geography and economic activity of medieval Durham.³ There remains, however, a great deal of material whose full potential has not yet been tapped. In particular, the vast amount of information relating to the priory's expenditure has only recently begun to receive detailed attention, in the form both of Christine Newman's work on employment on the priory estates and the present study.⁴

This thesis uses the obediatory accounts to analyse the consumption and purchasing of the priory between 1460 and 1520. The high level of detail contained in many of the accounts, together with the preservation of many of them as virtually complete series for the period looked at here has allowed a detailed analysis both of the actual purchases and the purchasing practices of the priory. A computer database was compiled to make the handling of such large quantities of data possible, and the information entered into the database has been analysed in conjunction with other evidence which was not suitable for computer analysis, in order to arrive at as full a picture as possible of the purchasing decisions and techniques of the priory at this late stage in its life.⁵

² R.B.Dobson *Durham Cathedral Priory, 1400-1450* (Cambridge, 1973).

³ R.A.Lomas, 'Durham Cathedral Priory as a Landowner and a Landlord, 1290-1540', (unpublished PhD thesis, University of Durham, 1973); R.A.Lomas 'The Priory of Durham and its Demesnes in the Fourteenth and Fifteenth Centuries', *Economic History Review*, 2nd Ser., 31 (1978); R.A.Lomas, 'A Northern Farm at the End of the Middle Ages: Elvethall Manor, Durham, 1443/4 – 1513/4', *Northern History*, 18 (1982); M.Bonney, *Lordship and the Urban Community* (Cambridge, 1990).

⁴ C.M.Newman, 'Employment on the Priory of Durham Estates, 1494-1519: The Priory as an Employer', *Northern History*, XXXVI (2000). A preliminary study of the priory's purchasing of imported goods was carried out prior to this study: M.Threlfall-Holmes, 'Provisioning a Medieval Monastery: Durham Cathedral Priory, 1464-1520', (unpublished MA thesis, University of Durham, 1997).

⁵ Full details of how the analysis was carried out are given in Appendix II, with summaries given in the main text as appropriate.

Whilst the accounts themselves use a commodity-based classification system, a thematic approach has been adopted in the analysis and presentation of this material. This approach is supplemented by the use of case-studies where a more in-depth treatment of a particular commodity is desirable, or where the priory's approach to the purchasing of different commodities differed considerably. Four major themes which the obediatory accounts illuminate are considered in this study, first being the issue of the monastic diet. The types and quantities of different foodstuffs bought by the priory are discussed, and the diet at Durham is compared to that found by Barbara Harvey at Westminster.⁶ Whilst issues of taste were clearly a factor in the foodstuffs bought by the priory, other considerations such as price, availability, social status and fashion also played a part in the purchasing choices made. The extent to which these factors influenced the priory's purchasing decisions is the second major theme looked at here, and three case-studies (grain, luxuries and cloth) illustrate the varying importance placed on such factors for different commodities. Once the monks had decided what goods they wanted, they next had to actually buy or otherwise acquire them. The third section of this study looks at the strategies and techniques employed by the priory at this stage of the process, and takes the form of a pair of chapters each dealing with one of the two main ways in which the priory acquired goods: via tenorial relationships, or via market transactions. Finally, the suppliers of the priory are considered.

As a preliminary to the discussion of these themes the present chapter considers the priory itself at this period, looking in detail at the workings of the

⁶B.Harvey, *Living and Dying in England 1100-1540: The Monastic Experience* (Oxford, 1993), pp.34-71.

administrative system which produced the accounts on which this study is based. The size of the task which the obedientiary system sought to make manageable is first outlined by a note on the population of the priory, and the way that the obedientiary system itself worked at Durham in this period is discussed. The accounts produced by the obedientiaries are then turned to, with a single year being focused upon to illustrate the different and overlapping responsibilities of each obedientiary, and finally an assessment of the accuracy and reliability of the accounts is made.

The population of the priory

Whilst the number of monks belonging to the priory varied over time, it would appear that somewhere between 60 and 70 full members of the monastery was normal throughout the fifteenth century.⁷ Accurate figures are surprisingly elusive as the priory kept no standard register of deaths from which such figures can be simply abstracted. However, Alan Piper is engaged in an ongoing project to compile biographies of all the Durham monks by piecing together all the dated or datable references to individuals which may be found in the archives. By compounding the lists of monks received into the priory which are to be found in the *Liber Vitae* up to 1482 with any other biographical details, such as date of priesting or death, that may be apparent from other material in the archives, and inputting any missing data, the following figures for the monastic population of the priory over this period may be estimated.⁸ Overall, the average number of

⁷ Dobson, *Durham Cathedral Priory*, p.300, gives this figure for the period 1400-50; for the population later in the century see below.

⁸ I am grateful to Mr. Alan Piper of the Durham Cathedral Muniments for these population figures, which he has calculated from the available evidence of monastic professions and deaths. They represent the total number of professed monks of Durham rather than the number resident in the

monks registered as members of the priory in any one year over the whole period 1464-1520 was 66. The estimated total monastic population of the priory and its cells from year to year is shown in the following table, together with the decade averages (fig. 1). Around thirty of these men were resident in the priory's various cells or at its Oxford college at any one time, leaving an average of 36 resident in the mother house over this period.⁹

Fig. 1: The Monastic Population of Durham Cathedral Priory and Cells,

1464-1520*

Year	Number of Monks	Decade average	Year	Number of Monks	Decade average	Year	Number of Monks	Decade average
1461	78	72	1481	57	58	1501	69	70
1462	74		1482	56		1502	67	
1463	71		1483	57		1503	70	
1464	75		1484	60		1504	71	
1465	71		1485	58		1505	68	
1466	68		1486	58		1506	70	
1467	69		1487	58		1507	70	
1468	71		1488	58		1508	72	
1469	70		1489	58		1509	70	
1470	68		1490	61		1510	71	
1471	70	1491	64	1511	72	71		
1472	68	1492	66	1512	69			
1473	65	1493	67	1513	69			
1474	66	1494	67	1514	69			
1475	63	1495	65	1515	71			
1476	64	1496	64	1516	73			
1477	62	1497	64	1517	73			
1478		1498	65	1518	71			
1479	63	1499	68	1519	75			
1480	56	1500	71	1520	74			

*Data for this chart has been taken from the unpublished results of Alan Piper's analysis of the biographies of the Durham monks.

mother house at any one time, but it seems probable that these populations are related proportionally. The *Liber Vitae* has been published in facsimile: A.H.Thompson, ed., *Liber Vitae Ecclesiae Dunelmensis. A Collotype Facsimile of the Original Manuscript, with Introductory Essays and Notes. Vol.1, Facsimile and General Introduction* (Surtees Society, CXXXVI, 1923).

⁹ The figure of 30 monks resident at the cells, varying from year to year but within only narrow limits, is given by Dobson, *Durham Cathedral Priory*, p.300; Piper's analysis suggests that this figure for the first half of the century held true for this later period.

In addition to the monastic population, the priory would have also been home to a large number of servants. Whilst the obediendiary accounts contain numerous references to pensions, salaries and stipends for such servants and other dependants of the priory, it is impossible to know from these accounts how many of the recipients of such payments were in fact residents of the priory. Other references in the accounts to the purchase of liveries or other garments for servants who were more clearly defined as members of the household unfortunately give no indication of the numbers involved. However, two of the few surviving bursar's rough notebooks include listings of the servants who received cloth liveries (usually at the rate of 3 ells apiece) in the two years 1509/10 and 1510/1.¹⁰ These list the names of individuals under headings according to their degree: 'gentlemen', 'clerical valets', 'valets' and 'grooms', and also include supplementary lists of the number of servants under the main obediendiaries who also need to receive their cloth allocation. It is possible from these lists to gain an idea, if not of the number of resident servants of the priory, at least of the number who qualified as the household. A total of 113 servants are listed for 1509/10 and 111 in 1510/1 (fig. 2).

Fig. 2: The number of servants of Durham Priory receiving livery, 1509-11

Year	Number of servants receiving livery					
	Gentlemen	Clerical Valets	Valets	Grooms	Other	Total
1509/10	10	3	58	37	4	112
1510/11	10	3	47	47	4	111

¹⁰ Durham Cathedral Muniments (hereafter DCM) Bursars' Book H, ff. 204v., 274v., 275r..

The scale of the administrative task faced by the monks of Durham is therefore clear. A household comprising at least 140 members had to be fed, clothed and (for many of them at least) housed. In addition, the estates which paid for these things had to be farmed or otherwise managed. Finally, the duties of prayer and hospitality which were the ultimate point of these other tasks had to be carried out. Whilst the large servant population was clearly there to help with the daily round, many duties inevitably fell upon the monks themselves. An average resident monastic population of 36 (many of whom were junior) had to oversee the carrying out of all these tasks as well as fitting in their religious duties. The strategies which they evolved to enable them to do so, and the effectiveness of those strategies, are the focus of the remainder of this chapter.

The obedientiary system

A medieval Benedictine monastery such as Durham Cathedral Priory typically administered its estates and household by dividing the lands between several of the monks, who were each then responsible for running those estates and for part of the day-to-day running of the monastery using the revenues. These monks were known as the obedientiaries. However, Benedictine monasteries were each governed independently, and the precise nature of the administrative system in each differed to a considerable extent. By the fifteenth century a great many modifications had been made to the original system outlined in the Rule, which had mentioned only a handful of offices, focusing on the abbot and cellarer who were to act as the father and mother - ruler and housekeeper - of the community.

Three broad categories of administrative style have been identified as in use in English religious houses by the late fourteenth or early fifteenth century, the key difference between them lying in the existence and role of the bursar or treasurer.¹¹ The first system did not have this officer, but was organised on the original principle of the priory's lands being distributed between the obedientiaries, who then managed them independently and received the revenues from them to be used in the expenses of their offices. At Battle Abbey, for example, the role of bursar never developed and the cellarer remained the most important obedientiary of the household well into the fifteenth century.¹²

The office of bursar developed in most Benedictine houses from around the end of the thirteenth century, although in some places such an office can be detected much earlier. At Canterbury Cathedral Priory, for example, a central treasury was in operation at the date of the first surviving account, 1198.¹³ At this date, the purpose of this central office was to enable the rent collecting system to be centralised; revenues could then be divided between the other obedientiaries in fixed proportions, so that variations in income affected all the offices equally. However, the bursar rapidly became a key official in his own right in most houses, and the second of the three systems shows this process at its most developed, being based around a central bursary which received all the revenues from the monastery's lands and distributed them to the various obedientiaries.

¹¹ R.A.L.Smith, *Collected Papers* (London, 1947), p. 35.

¹² E.Searle and B.Ross, eds., *Accounts of the Cellarers of Battle Abbey, 1275-1513* (Sydney, 1967), pp.6-13.

¹³ Smith, *Collected Papers*, pp. 23-41.

The third, and probably the more common system was a combination of these two extremes. The main obedientiaries had lands allocated to them individually, which were managed on the old pattern, but these did not comprise the whole of the house's property. A bursar also existed, and received the revenues of all the lands not otherwise allocated. In practise this often meant all or most of the lands acquired by the priory after its original foundation, and the bursar could thus be by far the richest of the priory's officials.

In Durham this third system, described by Dobson as 'in some ways the least logical', was in place by the late thirteenth century.¹⁴ The main obedientiaries had the income from certain properties assigned to their specific offices, whilst the bursary received the otherwise unallocated estates and revenues, giving him nearly three-quarters of the priory's total income. Typical of the old established obediences were the hostillar, who had an estate worth about £170 a year and the sacrist, whose annual income was around £80. In contrast, the bursar's income varied between £1308. 5s.10¾d. and £1472. 12s. 3d. in this period.¹⁵

The length of the bursar's account rolls, together with the large sums that he accounted for and the wide range of goods that he was responsible for buying, misled early historians into mistaking his role. The sixteenth-century writer of *the Rites of Durham* stated first that his job was 'to receive all the rents that was pertaining to the house', and then went on to declare that 'all other officers of the house made their accounts to him, and he discharged all the servants wages, and

¹⁴ Dobson, *Durham Cathedral Priory*, p.258.

¹⁵ Lomas, 'Durham Cathedral Priory', enclosure in end pocket. The lands allocated to each obedientiary are detailed in the appendix to this work, pp.298-364.

paid all the expenses... that the house was charged withall'.¹⁶ James Raine, writing in 1844, assumed that the different obedientiaries' account rolls were compiled together to create the bursar's roll, which could be taken as 'embodying the whole proceedings of the monastery in a summary way'.¹⁷ In fact, as already noted, the bursar's job was essentially miscellaneous - he was responsible for all income and expenditure not otherwise assigned. This was an extremely demanding job, as the size and complexity of his annual accounts indicate. Indeed, the priory's administration faced a major crisis in 1438, when no monk would accept the office of bursar, the candidates approached stating that they would prefer imprisonment or transfer to a stricter order. This impasse was temporarily resolved by a bold experiment in which the prior, [John Wessington] divided the responsibilities of the office into three roughly equal parts, giving a third of the bursar's income to both the cellarer and granator to manage independently.¹⁸

This new division did not greatly change the basic division of responsibilities between these obedientiaries, but it did mean that the huge burden of the bursar's task of managing the estates, collecting rents, repairing property and so on was now shared equally between them. Unfortunately, as Dobson shows in his analysis of this unusual period in the priory's history, the years of this experiment were ones of unusual economic problems for the priory, and the stringent economies that these years entailed reflected badly on the new arrangement. In addition, the monks still showed themselves unwilling to take

¹⁶ J.T.Fowler, ed., *The Rites of Durham*, (Surtees Society, 107, 1903), p.99.

¹⁷ J.Raine, ed., *The Durham Household Book: or, The Accounts of the Bursar of the Monastery of Durham, from Pentecost 1530 to Pentecost 1534* (Surtees Society, 18, 1844), p.viii.

¹⁸ Dobson, *Durham Cathedral Priory*, p.287.

even these divided responsibilities, and complaints were voiced that the experiment simply tripled administrative overheads for no gain. In 1445 the old system was reinstated by popular demand, and from then on until the dissolution the bursar remained supreme amongst the obedientiaris.¹⁹

There were at least twelve obedientiaris at Durham in this period, but not all compiled accounts. Those who did not could nevertheless be extremely important members of the community: they included, for example, the prior, sub-prior, master of the novices and the prior's chaplain, and their functions are described at length in the 1593 *Rites of Durham*.²⁰ On the other hand, a further two obedientiaris, not mentioned in the *Rites*, are known to have existed from the accounts they have left. These were the almoner and the infirmarer, responsible for the monastery's charity hospital and the monks' own infirmary respectively. In addition, the surviving account series refer to a number of other officials or servants who were involved in the provisioning process, and to documents such as indentures relating to transactions with such officials which have not been found amongst the surviving records of the priory. For example, the indenture made between the bursar and the cellarer in 1480/1 refers to butter being bought 'from the caterer', and itself includes a 'tallies and indentures' section which lists a total sum of £92.10s.10d. paid by indenture to three 'purveyors'. However, the fact that so many examples remain of accounts from each obedientiary whose records have survived in the archive suggests that those that are not represented were in some sense subordinate to the main business of the priory, or were intended at the time they were compiled to be only transitory

¹⁹Dobson, *Durham Cathedral Priory*, pp.287-290.

²⁰Fowler, *Rites*, pp.93-4, 96-7, 101.

documents. That is to say, it seems likely that the account series that have survived represent the priory's opinion of which records were important. It should be remembered, however, that the obedientiaries discussed here are by definition those who compiled accounts which have survived, and that the actual daily business of the priory involved many more individuals.

After the bursar, the most important obedientiaries were the granator, responsible for the priory's grain, and the cellarer, theoretically responsible for all the other food and drink required.²¹ The running of the church was the responsibility of the sacrist, in conjunction with the feretrar who had special responsibility for St. Cuthbert's shrine.²² The chamberlain provided the monk's clothing and bedding, and the communar provided pittances.²³ The *Rites of Durham* described the latter's job with great enthusiasm, as being to provide a fire in the warming-room, 'to have always a hogshead of wine for the monks', and 'to provide for all such spices against Lent as should be comfortable for the said monks for their great austerity of both of fasting and praying'.

Finally, there were also the terrar, who was the priory's rent-collector, and the hostillar or guest-master. The *Rites of Durham* declared that the terrar's job 'was to see that the guest chambers to be cleanly kept and that all the table cloths, table napkins and the napery within the chambers as sheets and pillows to be sweet and clean, and he provided always two hogsheads of wine to be ready against any strangers came and he provided provender for their horses that nothing should be lacking'.²⁴ This was in fact clearly the job-description of the

²¹ Fowler, *Rites*, pp. 99-100.

²² Fowler, *Rites*, pp. 94, 97-8.

²³ Fowler, *Rites*, pp.100-1.

²⁴ Fowler, *Rites*, pp.99-100.

hostillar, but the expansion of the bursar's role had meant that the terrar's job had become increasingly redundant over the years, and the posts of hostillar and terrar had by the time of the dissolution long been held by the same person and so were confused. Such a combination of offices in the hands of a single monk was not unusual in monasteries by this period, as the old job titles remained even where the jobs themselves became redundant or were combined. In Selby Abbey, for example, one monk was both bursar and cellarer in 1436 and another combined the offices of granger and keeper of the spiritualities.²⁵

The obedientiary accounts

The accounts that these obedientiaries produced each year all follow the same format, consisting of several membranes of parchment (occasionally paper) stitched end to end to form a long roll. The longest of these are the bursars' accounts, and these consist of either five or six membranes, each of slightly varying dimensions but typically measuring around 300mm wide by 750mm long. A typical bursar's roll is thus around four to four and a half metres long when fully extended. The extent to which the writing of the account continues over from the foot of the front side onto the reverse side of the parchment varies a great deal from year to year, depending on the size of writing and the number of membranes used (the number and length of entries varies little). Most commonly both sides of the bottom two or three membranes are used: but several instances of less overlap occur, whilst both sides of the 1494-5 account are fully covered. The accounts of the other obedientiaries are made up of lesser numbers of similar

²⁵ J.H. Tillotson, ed., *Monastery and Society in the Late Middle Ages: Selected Account Rolls from Selby Abbey, Yorkshire, 1398-1537* (Woodbridge, 1988), p.28.

membranes, the total size of the accounts varying greatly between the different offices. These lesser accounts frequently cover only one or both sides of a single membrane.

In each of the obedientiary accounts, income is listed first followed by expenditure. The categories into which the entries are divided within these broad headings are consistent within each class of account from year to year, although they vary somewhat between the different obedientiaries. This variation primarily takes the form of the bursar having many more divisions in his accounts - splitting out purchases of wine, corn, oats, barley, cloth and so on - whereas the lesser obedientiaries, with only one or two entries in each category, tend to lump all commodity purchases, and miscellaneous expenses together into a single 'expenses' section. In all cases, however, the section or sections detailing such expenditure are followed by several other sections listing pensions, salaries, repairs and so on. The format of each obedientiary's accounts is the same in each year, a practice that served to keep the accounting system manageable: or, as Dobson put it, 'prevented an extraordinarily complicated system from falling into complete incoherence'.²⁶ One useful consequence today of this high degree of standardisation is that comparable figures from different years are relatively easy to locate on the rolls of a particular obedientiary.

This study focuses on the expenditure of the priory, as recorded in the second half of the obedientiary accounts.²⁷ However, some income elements are also relevant to the issues looked at here. Tithes were occasionally paid to the priory in kind and in particular some of the grain acquired by the priory in most

²⁶Dobson, *Durham Cathedral Priory*, p.255.

years came via this route, so the tithe income sections of the accounts have been examined for such payments. Other income elements could also be paid in kind, as will be seen; such payments do not show up in the accounts themselves but in the few surviving rentals, which have been used where appropriate.²⁸ Finally, some of the obedientiary accounts include income elements which represent the profits of selling various by-products of an office. For example, the bursars' accounts include income from selling second-hand garments, leather, wool (apparently only a by-product rather than a major industry at Durham in this period), tallow and dripping. The cellarer also sold similar kitchen by-products, including tallow, dripping, hides and sheepfells. Evidence of industrial or entrepreneurial activity by the priory is limited to such domestic and small-scale examples however. For the most part, the priory's only dealings with the market were as a consumer, and the focus of this study is on the evidence that these accounts contain for the extent and nature of those dealings and of the markets and other environments in which they took place.

Multiple copies of each account were drawn up, and in some cases two or even three copies still survive in the Durham archive. These are generally final versions, but there are isolated examples where this is not the case, and where draft or incomplete accounts have been preserved.²⁹ The archives also contain a few examples of the bursar's household books, notebooks in which the bursar jotted down purchases and payments made, and from which he later compiled his

²⁷ The income sections of the obedientiary accounts were the focus of Lomas, 'Durham Cathedral Priory'.

²⁸ See chapter four, pp.191-211.

²⁹ For example, the hostillar's account for 1508/9 is drawn up in the manner of a pro forma, with blanks left throughout for quantities and prices to be inserted. For roughly half of the roll, these gaps have been completed with the relevant details (in a different hand and ink to that of the bulk of the account) but other sections have been left unfinished.

yearly enrolled accounts. Unfortunately, these have not survived systematically, and are generally incomplete and in worn condition;³⁰ but they do exist in reasonably complete condition for 1530/1 to 1533/4, and these have been published by the Surtees Society.³¹

The dating used in the accounts (and therefore in this study) was based on the church year rather than the calendar year. The years referred to throughout are therefore generally given as accounting years, which overlapped two calendar years. For example, most of the obedientiary accounts were dated from Pentecost to Pentecost, which in 1480/1 (the year looked at in more detail below) ran from Sunday 21st May 1480 to Sunday 10th June 1481. It follows that a 'year' was in fact a period of variable duration, 55 weeks in this example. Where the length of the 'year' or the exact correspondance between the church year and the calendar year is relevant to this study the necessary adjustments have been made, but in general such differences have been disregarded. Similarly, not all accounts ran from Pentecost, but all had a start- and end-point at around the same time of year: other dates used were Ascension day (Tuesday 11th May to Thursday 31st May in 1480/1), the Monday after Ascension day (17th May to 4th June), and the feast of the Translation of St.Nicholas (held on the fixed date of the 9th May). These differences in exact dating were thus of only minor significance, and are not relevant to this study; years are given throughout simply in the form 1480/1, and this is to be understood as referring to a period from early summer in one year to early summer in the following year.

³⁰Only three such notebooks survive for this period. DCM B.Bk.G contains miscellaneous information relating to 1495/6; DCM B.Bk.H records payments made in 1507/8, 1509/10 and 1510/1, and includes reckonings with the prior and other obedientiaries for those years; and DCM B.Bk.J includes payments made in 1517/8, and some miscellaneous information relating to 1518/9.

The level of detail recorded in each entry similarly varies between the different obedientiaries, although this also differs for different commodities, from year to year, and even between individual entries in the same account. The most comprehensive entries include a great deal of detail. Perhaps the most information occurs in some of the hostiller's wine purchase entries, which can list the price and quantity purchased from each merchant, the variety of wine, the name of the merchant, a location and details of the carriage charges involved in bringing the purchased wine to the priory. However, most entries give only a selection of such information, and the details given are rarely consistently the same. Sparse entries giving only the type of commodity purchased and a total price are common, and occasionally different commodities are bundled together in an entry, defying analysis. Examples of these less useful entries include the infirmarer's purchase in 1485/6 of 'bread, wine, fruit and other foodstuffs for the brothers in the time of this account - 4s.9½d.', and the regular inclusion in the bursar's account, under the prior's expenses, of 6s.8d.-worth of 'diverse spices'. Nevertheless, the information included in most of the entries in each account is sufficient for a useful analysis of this data to be undertaken, and for a remarkably detailed picture of the priory's purchases and purchasing to be built up.

1480/1: A snapshot of the priory's accounting system

The fact that so many of the obedientiary accounts have survived makes possible a detailed analysis of the priory's administrative structure and

³¹Raine, *Durham Household Book*.

accounting system in the late fifteenth century.³² The Durham archive in some ways presents an embarrassment of riches, with hundreds of boxes of accounts, charters, writs and letters bearing witness to the extraordinary record-keeping which was such a feature of Benedictine life. The administrative system which produced these documents was a complex one, and the accounts themselves illustrate the interlocking network of responsibilities and obligations which grew up around Benedict's original conception. The main problem faced by the historian in trying to recreate this system is the lack of full sets of evidence. Generally, only one or two accounts from any given house have survived for any one year, and only rarely have accounts survived for consecutive years. It thus becomes impossible to tell whether payments recorded as having been passed between two offices of the same house were standard practise or unusual; whether payments described as gifts were in fact gifts or had hardened by long practise into obligations, and whether a particular years' accounts record the full spectrum of an officer's responsibilities. It is also difficult to tell quite how the various responsibilities attendant on running a monastery were divided between the monks, and just how much of the priory's expenditure was in fact merely circulated within the monastery.

Because Durham cathedral priory's accounts have survived in such substantial numbers, however, it is possible to get quite close to the ideal of being able to study a full set of accounts. Ten out of a total of thirteen obedientiary accounts and similar documents exist for a single year in this period, 1480/81, and the analysis made here of these provides a snapshot of the priory's financial system in this period (fig.3). This year has been chosen purely for evidential

³² Appendix II shows exactly which accounts have survived for each obedientiary over this period.

reasons, recommending itself solely, and crucially, by the fact that a greater number of parallel obedientiary accounts remain for 1480/1 than for any other year between 1464 and 1520: that is, eight out of the eleven obedientiary account series that are represented in the Durham Cathedral Priory archives, plus the bursar/cellarer and bursar/granator indentures.

The three accounts not represented in the archive for this year are the terrar's, infirmarer's and sacrist's. To make this study as comprehensive as possible the following analysis includes accounts from other years for these obedientiaries. The nearest terrar's account dates from 1463/4, but both the infirmarer and the sacrist have accounts from 1485/6 which are used here. It must, of course, be remembered that these three accounts are not directly comparable with the others - cross payments, for example, will not necessarily match up unless they were consistent for many years at a time.

It should also be noted that the granator's account and the bursar/granator indenture are missing from the table. This is because the material in these documents is included in the bursar's spending in this analysis. These two documents are different from the other accounts looked at here, being expressed entirely in terms of quantities of goods handled. A comparison of the detail of each entry in these two accounts with each other and with the grain purchase sections in the bursar's account makes it clear that all three are concerned with exactly the same goods. For example, the first entry in the bursar's wheat refers to '4 quarters 2 bushels from Thomas Wake of Wermouth, 28s.4d.', whilst the first entry in the bursar/granator indenture reads 'from Thomas Wake of Wermouth, 4 quarters and 2 bushels of wheat'. The rest of the entries in each grain section continue to match exactly in this way.

Fig. 3: Breakdown of the obedientiaries' expenditure by category, 1480/1

	Bursar £.s.d.	Bursar/Cellarer £.s.d.	Hostiller £.s.d.	Sacrist £.s.d.	Chamberlain £.s.d.	Communar £.s.d.	Almoner £.s.d.	Cellarer £.s.d.	Tenar £.s.d.	Fenetrar £.s.d.	Infirmarier £.s.d.	TOTAL £.s.d.
FOOD AND DRINK												
[Grains]	£480.9s.2d.	£360.10s.4d.	£6.18s.8d.	£24.14s.3d.	£1.5s.8d.	£2.1s.8d.	£1.10s.4d.	6s.2d.	£1.2s.0d.	-	4s.9½d.	£878.13s.10½d.
[Meat]	£362.11s.7d.	-	-	6s.0d.	-	-	-	4s.8d.	£1.0s.0d.	-	-	£364.2s.3d.
[Fish]	£44.4s.10d.	£150.0s.9d.	-	£20.16s.7d.	-	-	-	-	-	-	-	£215.2s.2d.
[Spices]	£2.6s.5d.	£126.5s.0d.	-	-	-	-	-	-	-	-	-	£128.11s.5d.
[Dairy]	-	£20.15s.11.5d.	2s.0d.	-	-	£1.11s.10d.	-	-	2s.0d.	-	-	£44.7s.1½d.
[Other food]	-	£2.12s.9d.	-	-	-	-	-	-	-	-	-	£2.12s.9d.
[Wine]	£22.19s.8d.	£60.6s.8.5d.	-	5s.8d.	-	-	-	1s.8d.	-	-	4s.9½d.	£82.3s.0d.
[Monks' clothing]	£48.6s.8d.	-	£6.16s.8d.	£3.6s.0d.	£1.5s.8d.	9s.10d.	£1.10s.4d.	-	-	-	-	£61.15s.2d.
[Servants' clothing]	£50.15s.2d.	-	£4.17s.2d.	£3.15s.4d.	£21.0s.4½d.	5s.0d.	£2.17s.0d.	2s.4d.	£1.2s.8d.	4s.9½d.	7d.	£85.0s.5d.
[Hoods, boots, gloves, etc.]	£5.3s.9d.	-	10s.0d.	3s.4d.	£16.5s.4½d.	-	£1.0s.0d.	-	-	-	-	£24.2s.5½d.
[Misc. clothing costs]	£29.13s.7d.	-	£2.17s.6d.	£2.11s.0d.	£1.5s.11d.	3s.3d.	£1.7s.0d.	-	6s.8d.	4s.9½d.	-	£38.9s.8½d.
[Linen]	£1.2s.0d.	-	10s.0d.	10s.0d.	£2.17s.6d.	1s.9d.	10s.0d.	-	16s.0d.	-	-	£5.18s.7d.
[Other textiles]	£7.15s.7½d.	-	16s.8d.	1s.0d.	1s.1d.	-	-	10d.	-	-	-	£1.4s.1d.
FUEL	£5.6s.10½d.	-	3s.0d.	4s.4d.	3s.0d.	-	-	1s.0d.	-	-	-	£9.6s.3½d.
PENSIONS/STIPENDS ETC	£9.8s.4½d.	-	3s.0d.	-	-	4s.0d.	12s.0d.	-	-	-	7d.	£5.19s.3½d.
BUILDINGS	£121.0s.11½d.	-	£54.2s.11d.	£29.19s.11d.	£10.2s.10d.	£9.3s.6d.	£26.15s.4½d.	-	£5.1s.4d.	£1.11s.2d.	18s.8d.	£11.6s.0½d.
ADMINISTRATION	£88.15s.8½d.	-	£20.8s.4d.	£68.18s.1d.	£1.17s.8½d.	£17.17s.2½d.	£13.16s.5d.	£12.1s.6d.	13s.4d.	3d.	-	£224.8s.6½d.
AGRICULTURE	£13.11s.0½d.	-	£5.11s.11d.	14s.8d.	£2.6s.4d.	12s.9d.	12s.9d.	2s.8d.	£2.13s.5d.	1s.0d.	1s.0d.	£26.7s.6½d.
STABLES	£15.1s.0d.	-	£15.19s.11½d.	£2.10s.2d.	-	-	£3.10s.8d.	£2.9s.2d.	-	-	-	£39.10s.11½d.
RENTS	£9.9s.2d.	-	£35.17s.9½d.	£3.0s.10d.	£1.10s.9d.	-	£1.6s.7d.	-	£5.16s.4d.	-	-	£57.1s.5½d.
TRANSFERS	£7.8s.4d.	-	-	£5.10s.5d.	-	£2.9s.5½d.	£2.11s.4d.	-	-	-	-	£17.19s.6½d.
OTHER	£18.2s.5d.	-	£11.0s.0d.	£4.4s.11d.	£38.0s.8d.	£34.19s.6½d.	£2.15s.6d.	£2.0s.0d.	3s.4d.	£21.2s.2d.	£1.18s.8d.	£134.7s.2½d.
ALLOWANCES	£20.17s.3½d.	-	£9.12s.11d.	£19.17s.9½d.	13s.1d.	6s.3d.	£3.5s.5d.	£2.13s.5d.	£2.11s.8d.	6s.7d.	£1.11s.11d.	£61.16s.4d.
	£22.5s.11½d.	-	£17.15s.8d.	-	£6.10s.1d.	£7.0s.8d.	10s.0d.	£9.4s.5½d.	-	1s.8d.	-	£63.8s.6d.
TOTAL	£857.4s.7d.	£360.1s.2d.	£182.8s.4d.	£163.6s.4½d.	£83.7s.6d.	£75.0s.0½d.	£60.3s.4½d.	£47.14s.2½d.	£19.4s.1d.	£23.7s.7½d.	£5.6s.5½d.	£1877.3s.9½d.
Total given in roll (without surplus)	£914.3s.8d.*	£400.11s.2d.	not given	£164.18s.0½d.	£82.14s.0d.	£75.5s.10½d.	£62.14s.7½d.	£47.4s.6d.	£19.4s.1d.	£23.7s.7½d.	£5.6s.10½d.	£1895.10s.5½d.

(inc hostiller total estimate)

*The bursar's 'necessary expenses' section in 1480/1 totalled £87.6s.9d.; because of the bad condition of this section, that for the nearest available year, 1478/9 (totaling £88.6s.7d.) was used in this analysis.

- Notes:
 1 The tenar's figures are from 1463/4
 2 The sacrist's and infirmarier's figures are from 1485/6
 3 The bursar's figures are from 1480/1, but the 1478/9 necessary expenses details have been used in the above breakdown

The granator's account does not list purchases in such detail, but the totals referred to do still match. It is clear from a comparison of these accounts that the grain was being acquired in the first place by the bursar (who does give it a monetary value) and accounted for by him. It was then handed over by the bursar to the granator, a transaction recorded in the bursar/granator indenture, and finally discharged from the granary over the year, a process recorded by the granator in his account. Thus only the bursar's account is relevant in an analysis of the expenditure of the priory.

For the material contained within the bursar/cellarer indenture, which is included in this table (fig. 3) the case is rather different. This indenture is in fact also an account, containing material which is not duplicated elsewhere in the archives. The bursar appears to have handed over a sum to the cellarer, which the cellarer then spent on the provisioning of the priory, mainly on meat and fish. This sum is mentioned in the bursar's account only as a lump sum handed over to the cellarer 'by tally and indenture' - in other words, as is witnessed by the bursar/cellarer indenture. Unlike the bursar/granator indenture, which merely lists the grain handed over, the bursar/cellarer indenture is a detail account of the expenditure of the amount in question. In other words, it reads as if it were in fact the cellarer's account, an impression confirmed by the fact that the actual cellarer's account, which does not duplicate any of the information in this indenture, is entitled the cellarer's 'minor account'. It too records purchases made and expenditure incurred in the discharge of his office, but the income spent is entirely derived from selling kitchen by-products such as tallow and hides, and is only a small fraction - about an eighth - of the sum handed over to him by the bursar.

In order to make a full and useful analysis of the expenditure of each obedientiary I have categorised expenditure under twelve headings: food and drink,

clothing and textiles, fuel, payments to individuals (such as pensions and stipends), building and repair works, administration, agriculture, stables, rents, transfers to other obedientiaries, miscellaneous and allowances. As the table (fig.3) demonstrates, the division of responsibilities between the different obedientiaries was by no means clear-cut. Apart from the un-endowed cellarer and granator, each was responsible for the administration of his own estates and revenues; each paid pensions, salaries or stipends, each to some degree provided clothing for his own servants, and most were responsible for the upkeep of certain buildings. Most of the obedientiaries, therefore, divided their expenditure between all or most of the categories defined above, since they were responsible for all the miscellaneous expenses relating to their particular sphere of influence. For example, the sacrist was responsible for the church expenses, the almoner for the cost of maintaining the various hospitals supported by the priory, and the hostillar for the guesthouse. More general items of consumption, such as food and fuel, were mainly provided for by the bursar. However, the system was by no means that straightforward, and other obedientiaries still purchased goods in these categories.

The most self-explanatory of these headings is food and drink. This includes all expenditure on foodstuffs, including wine, spices, all grains (unless they are specified to have been for animal consumption), and miscellaneous items such as butter and green peas. For the purposes of more detailed analysis of this category, which accounted for just under half of all the priory's expenditure in 1480/1, it has been divided into several subcategories: grains, meat, fish, spices, dairy products, other foodstuffs and wine. In my original analysis I also included a category for drinks other than wine, but since nothing came under this heading I have omitted it here. It

should of course be borne in mind that a proportion of the grain bought by the priory would have been converted into beer.

Purchases of food and drink accounted for just under half of the priory's total expenditure, and were handled to some extent by every obedientiary except the feretrar. They were nevertheless particularly the province of the bursar and the cellarer, who between them paid for 96% of all the foodstuffs bought by the priory. The cellarer used the money provided by the bursar to purchase virtually all the meat, poultry and fish, whilst the main items of consumption bought directly by the bursar were grains and wine. The bursar was almost solely responsible for these latter items, buying virtually all the grain purchased by the priory in this year (over 99.5%), and 78% of the wine. The only other obedientiaries who bought grain-based products in this year were the sacrist, cellarer and terrar, and they spent small amounts on bread doles. Providing bread for the priory's meals was clearly the sole financial responsibility of the bursar, although the day-to-day practical responsibility lay with the granator to whom the bursar passed all the grain which he purchased.

The picture is slightly different for wine purchases. Although the bursar was responsible for the bulk of the priory's wine purchasing, a sizeable minority - 22% - of the wine bought by the priory was supplied by other obedientiaries. In particular, the hostiller bought 10% of the total, presumably for use in entertaining the priory's more exalted guests, while a further 5% was bought by the sacrist for use in the church. Moreover, these core supplies were supplemented on a regular basis by 'gifts' from other obedientiaries to the monastery. In 1480/1, the chamberlain spent £1.2s.4d. on wine 'given to the lord prior and the brothers', and a further 3s.4d. on wine for the novices; the communar donated 9s.10d. worth of wine to the prior's four annual *ludi*; while the almoner gave £1.2s.2d. worth of wine to the same feasts, and like the

chamberlain also gave wine costing 3s.4d. to the novices. All of these are recorded in the 'Gifts and Presents' sections of the respective accounts, but do appear to have been regularly given each year and so can be considered to have been obligations of the offices concerned rather than freely given - and withdrawable - gifts.

Spice purchases show a similar pattern. The main responsibility for purchasing the priory's spices was divided between the bursar and the cellarer, 47% being accounted for in the bursar/cellarer indenture and 49% in the bursar's account.³³ In addition, small but regular supplementary spice purchases also occur in the accounts of certain other obedientiaries, namely in the communar's, hostiller's and terrar's accounts. Other minor contributions were also made to the monk's sustenance by various obedientiaries in the form of gifts of foodstuffs and pittances. For example, in this year the infirmarer spent 4s.9½d. on 'bread, wine, fruit and other food for the brothers'.

The only strikingly unusual feature of the distribution of food and drink purchases between the obedientiaries is the purchase of a notable amount of meat - 10% of the total bought by the priory - by the sacrist. This anomaly occurred because the sacrist's traditional estates included an area given over to pastoral husbandry, and rents from these farms were paid partially or wholly in kind. Indeed, it should be borne in mind that the majority of the food purchases of the priory - especially of grains, meat and fish - were in fact transactions of this nature. The monastery accounts conceal this fact by a form of double-entry accounting, in which rents are recorded as having been paid, as goods as having been bought, at their cash values, even when in fact no money changed hands. The two recorded transactions are simply

two ways of looking at the same actual transaction. We can tell that this is the case because for a few odd years the bursar's rentals have survived. These notebooks list the priory's tenants and the rents due from each, and in the spaces between these entries their payments are recorded. The typical pattern was for a rent owed to be paid in several stages and by a variety of means. For example, in 1495/6 John Bertram of Southwick owed the priory £3.13s.4d. in rents. The entry in the rental which notes this is followed by a collection of additional entries, first noting that he paid £1.0s.0d. at the court (*ad curiam*), then that he paid £1.2s.0d. at the third tourn followed by 3s.9d. in the form of 3 salmon and finally a further 13s.0d. in cash (*in pecunia*). At this point it was noted that he still owed 13s.8d., and the last entry records that this sum was paid in a mixture of dogdraves and cash.³⁴ An additional complexity could be introduced into the system when the payments in kind did not add up exactly to the amount owed, and there are several examples in the rentals of both under- and over-payments being carried forward to the next year.³⁵ Notwithstanding the sacrist's contribution which came about in this way, however, it can be seen that overall the food and drink consumed by the priory was almost entirely paid for by the bursar, and was handled primarily by the cellarer and the granator.

The next section in the table (fig.3) is the clothing and textiles category. This includes all cloth purchases, together with all the whole garments mentioned the value of which is given separately. Garments which are mentioned in connection with a salary payment and whose value cannot be separated from that payment have been included under the next section, payments to individuals in the form of pensions,

³³ The spice purchases recorded in the bursar's account proper are also divided into two. Approximately 86% occur in the 'Spice purchases' sub-section, with the remaining 14% being listed separately under the 'Prior's expenses'.

³⁴ R.A.Lomas and A.J.Piper, eds., *Durham Cathedral Priory Rentals, Vol.1: Bursars Rentals* (Surtees Society, 198, 1989), p.145.

stipends and so on. In other words, where an entry takes the form of stating that a priory servant was paid 40s. in salary and a robe, the robe is accounted for under salary payments, whereas if its value is given separately in the account then it has been put under this cloth and clothing category. This is not an ideal situation, but the sums involved do not significantly alter the conclusions here. Purchases of cloth which cannot definitely be allocated to clothing purposes have been divided between linen and other (generally cheaper, coarser) cloths - such as sacking, hardyn, and haircloth. Another division of this category is the purchase of clothing accessories, such as hoods, boots and gloves, although it is likely that these may in fact have been commuted to a money payment. Several small payments for making and mending garments are also included here.

All of the obedientiaries who produced accounts purchased textiles in some form, and this included some clothing in the case of all except the cellarer. However, 60% of the priory's total expenditure on cloth and clothing was spent by the bursar and 25% by the chamberlain. Moreover, the degree of specialism between obedientiaries becomes more marked as the totals are sub-divided: for example, the chamberlain accounted for 67% of the priory's expenditure on monk's clothing, and the bursar for 77% of servant's clothing.

The overall picture of the various obedientiaries' cloth purchasing illustrates well the complex workings of the obedientiary system at this late date. Each obedientiary except the cellarer, infirmarer and granator bought garments and/or accessories such as hoods, boots or gloves for certain servants who were attached to them personally rather than to the priory as a whole. Almost all the obedientiaries also purchased such miscellaneous textiles as were required in the day-to-day running of

³⁵ Lomas & Piper, *Rentals*, e.g. pp.147,150.

their department, estate or business - such as bolting cloths for sieving flour, or the cellarer's purchase of hardyn cloth 'for the kitchen window'.

In addition to this pattern, the sacrist, chamberlain and bursar had more specific responsibilities. The sacrist had to buy the linen that was needed for albs, amices and other ecclesiastical garments. He spent only a fairly small amount in 1480/1: 5s.8d. on linen and 1s.0d. on mending old albs. The amount purchased by the sacrist varied noticeably from year to year, presumably depending on how garments purchased in previous years were faring. In the nine surviving sacrist's accounts only one has no cloth purchases mentioned, whilst most show expenditure between around 6s. and £1. The biggest surviving expenditure is recorded for 1465/6, when the sacrist spent £1.6s. on linen, 4s.5d. on mending and 6d. on thread and cord.

The bursar purchased the heavy woollen cloths for outer robes, both black ones for the monks and others of lesser qualities and different colours which formed the priory's livery and which were distributed amongst the priory's servants and dependents annually. The chamberlain bought cloth for the rest of the monks' clothing, primarily black serge for outer garments and linen for undergarments and shirts. He also periodically had to buy a full set of new clothing for the group of novices that entered the monastery every three or four years. 1480/1 was one of these years, and in addition to his normal expenditure the chamberlain spent £2.6s.11d. on equipping ten novices with a pelisse and two pairs of boots each.

The following category, fuel, clearly demonstrates the workings of the obediary system at Durham. The bursar was purchasing the bulk of the priory's fuel, but other obediaries were also buying small amounts for their own spheres of responsibility - the hostiler for the guest house, the communar for the monks common

hall, the almoner for the various hospitals supported by the priory, and the infirmarer for the priory's own infirmary.

The next major category, payments to individuals, includes all such payments except those which have been otherwise classified as relating to a particular commodity or service. Payments to thatchers, tilers and carpenters, for example, are included in the category of building and repair work, whilst the labour of haymakers is included under agriculture and payments to messengers come under the costs of administration. This 'payments to individuals' category might be very crudely described as covering salaries rather than wages, and whilst this distinction may seem artificial it does have the advantage of mirroring the categorisation used by the obedientiaries themselves in the accounts.

All of the obedientiaries who produced accounts spent significant amounts on payments to individuals in the form of pensions, stipends, salaries and so on. One notable set of payments included under this heading was the charitable expenditure of the almoner, expressed in terms of payments to the 'brothers and sisters' living in the various hospitals endowed by the priory. It should be noted, however, that this and other charitable giving appears to have accounted for only a negligible amount of the priory's total expenditure.

The building work and repairs category includes the purchase of raw materials for building - stone, timber, plaster and so on - and their carriage to the building site, as well as the labour involved in the actual works. Here again a picture of general involvement in addition to some specialism emerges. Each of the obedientiaries was to some extent engaged in the maintenance of buildings, mainly in connection with the estates of their endowments. This involvement could be as minor as the three pence spent by the feretrar on a key in this year, and potentially varied a great deal from year

to year as various repairs became necessary or new building work desirable. In the snapshot given in the above table, the sacrist is seen to have spent a large part - 42% - of his expenditure for 1485/6 on building works. The great majority of this amount, £63.5s.6½d. of £68.18s.1d., is accounted for by repairs to the belltower, accorded a special section of their own in his account. Each obedientiary was also responsible for the construction and upkeep of buildings on his own estate, including the repair of tenements from which rents were derived. As can be seen from the table (fig.3), both the hostiller and the communar spent significant sums on such repairs in this year, buying stone, timber, lime, plaster, nails, carriage and labour. Amongst the many building jobs carried out by the communar four workmen were paid a total of 12s.10d. for making three 'rods' of stone wall for a new malt-kiln and seven carpenters were paid 30s.10d. for their work on three new stables. Much of the work paid for by the hostiller centred upon his mill at Shincliffe, which required 270 days of labouring in this year, together with an unspecified amount of planks and boards and seven shillings-worth of tar.

The administration category includes the clerical expenses of each office, and the costs incurred in managing the obedientiaries' estates. Elements included here are the purchase of parchment, paper and ink; the labour of scribes; the costs involved in holding halmote and other courts; and expenses incurred in transacting official business, sending messages, collecting rents and so on. Agricultural expenses are mainly mowing and hay-making costs, together with charges for threshing and winnowing the grain that the priory received as tithes. Although the terrar, who might be expected to have incurred the majority of these expenses, did in fact spend more than many of the other more minor officials, both the bursar and the hostiller spent far more than him in these categories, and the chamberlain, sacrist and almoner spent

similar amounts to the tarrar in administering their own estates. The bursar's prominence here is unsurprising, and it seems likely that the hostiller's expenses in this heading were due to a confusion of functions, since as has already been noted the hostiller and tarrar's jobs were held by the same person by this period.

Expenses relating to the priory's stables include the purchase price of horses, shoeing, fodder and saddlery. It can be seen that the majority (63%) of the priory's expenditure on stabling, horses, fodder and saddlery came from the hostiller; a fact that echoes the description of his role in the Rites of Durham, and suggests that the care of guests' horses was a not inconsiderable part of the expense of the monks' reputation for hospitality.

The rents category includes both actual rents and other customary or feudal charges arising from land holdings. The only rents excluded from this category are those paid to other obedientiaries within the priory, which are included in the following section, transfers to other obedientiaries.

This final section includes all payments recorded in one obedientiary account as having been paid to another obedientiary. As well as rents, this category also includes customary or extraordinary payments ordered by the prior for the subsidy of a struggling office by a flourishing one, or as contributions to major building projects such as the bell tower. Eric Cambridge has studied these payments as part of his thesis on the priory's architectural history and building works and has found that many had become standard amounts paid to the prior each year as a kind of slush-fund, to allow for the priory's non-standard expenses. In this decade, these were all paid to the sacrist to subsidise the construction of the new cathedral tower.³⁶ One interesting point to

³⁶ E. Cambridge, 'The Masons and Building Works of Durham Priory 1339-1539' (unpublished PhD thesis, University of Durham, 1992), pp17-9, 118.

note about this transfer category is that the feretrar was spending virtually all his income in this way, which illustrates the extent to which an office once considered worth endowing could atrophy over time into a mere sinecure. It should also be borne in mind that the total amount transferred between obedientiaries in this year was equivalent to 7.2% of the total of all the obedientiaries expenditure. The actual amount spent outside the priory in this year is thus that much less than the total figure given in the table.

Auditing and the reliability of the accounts

These accounts, which were presented by each obedientiary to the priory's Chapter around Pentecost each year, were designed as a means of checking that the obedientiaries had honestly and efficiently administered their estates and carried out their tasks. Technically, each obedientiary was personally liable for any shortfall, although the allowances system meant that he could write off certain allowable sums - notably rents uncollected due to the tenure being vacant or waste. The system was therefore based around the assumption that the accounts would be thoroughly audited.³⁷ However, only a small amount of evidence of auditing procedures having taken place can be found in these accounts, and they contain frequent arithmetical errors which are only occasionally corrected.³⁸

The clearest indication of auditing having taken place is the appearance in an account of marginal patterns of dots, which represent the final position of the counters used on the *scaccarium*, the chequered cloth used as an abacus-board by the auditors.

³⁷ Dobson, *Durham Cathedral Priory*, pp.254-5. Hatcher notes that the accounts of the Duchy of Cornwall estates do appear to have been audited every year. J.Hatcher, *Rural Economy and Society in the Duchy of Cornwall, 1300-1500* (Cambridge, 1970), p.50.

The presence of such dot patterns, usually alongside some of the sub-totals, or the grand totals in an account, indicates that these totals have been checked for their accuracy and passed as correct. Hector gives a brief account of this notation system, commenting that ‘the margins of audited accounts, particularly in the 15th and 16th centuries, will often be found to contain groups of manuscript dots which are in effect diagrams of the abacus’.³⁹ The system consists of a series of columns representing, from right to left, farthings, pence, shillings, pounds, £20, £100, £1000 and £20,000 as appropriate. These columns are crossed by a central horizontal line. Each counter represents a single unit of the appropriate columnar value, except for counters placed in certain positions relative to the horizontal line and the column margins, which take on particular values. Thus a counter placed centrally above the line in the pence column represents 6d.; a counter placed above the line on the extreme right of a column represents five units except in the pence and farthing columns; and a counter above the line on the extreme left represents ten units, but only in the shillings, pounds and £1000 columns. Farthings are always placed beneath the line, and other single unit counters can also be placed there. Hector gives the following example (fig.4):

Fig.4: An example of the dot-pattern auditing system⁴⁰

[£20]	[£1]	[1s.]	[1d.]	[¼d.]	= £175.18s.9¼d.
. . . :	. . .	: . . :	. . :	.	
.	

³⁸ Snape has stated that auditing was intended to be carried out at least every year; however he also notes that, at Worcester at least, ‘even this was frequently neglected’. R.H.Snape, *English Monastic Finances in the Later Middle Ages* (Cambridge, 1926), p.67.

³⁹ L.C. Hector, *The Handwriting of English Documents* (London, 2nd edn. 1966), pp.42-3.

⁴⁰ This example is taken from Hector, *Handwriting*, p.43.

This system is further complicated in practice by the fact that the lines, both vertical and horizontal, are rarely drawn in when this notation is made on a document. In addition, in none of the examples found in the Durham accounts are the columns labelled. In fact, it is not at all a system which clearly communicates information to the reader, since a wide variety of misinterpretations are possible. It seems probable that the very presence of these dot patterns in the margin of an account was intended to signify approval of the total given there, rather than to communicate the encoded numbers to a reader. In other words, when an auditor had completed his own totalling of a section of an account, he would note the final position of the counters in the margin as a tick. Errors, if found, were corrected, not noted in this way. It should be noted that no case has been found in these accounts where dot patterns are present which cannot be interpreted fairly clearly as matching the totals given in more conventional notation in the accounts themselves.

These confirmatory dot patterns may be seen in only three of these accounts, and in a fourth from just outside this period. They appear against most of the expenditure sub-totals and the expenditure grand total on the 1517/8 communar's account; against every sub-total in both the receipt and expenditure sections on one of the three copies of the communar's 1524/5 account;⁴¹ against the surplus of expenditure over receipts at the end of the 1499/1500 cellarer's account, and against several of the sub-sections in both of the two surviving copies of the 1499/1500 bursar/cellarer indenture.

These dots are not the only possible indication that the accounts have been audited, however. In the 1506/7 terrar's account similar marginal confirmations of the

expenditure sub-totals and grand total are made, but in the usual pounds, shillings and pence notation. Similarly, the grand total is confirmed in this way in one of the sacrist's accounts . But other suggestions of auditing procedures having taken place are much less clear-cut, consisting of the presence in the accounts of corrections, especially those made in a different ink to that used in the preparation of the account. Examples occur in the sacrist's account for 1473/4, where a repeated entry in the church expenses section has been erased; in the sacrist's 1485/6 account, where 6d. has been added to the grand total in another ink; and in the chamberlain's 1475/6 account and the cellarer's 1490/1 account, where several amplifications have been made although the sums involved remain unchanged. These corrections are not distinctively auditors' marks, and may well have been made by the scribe himself when he came to read through his work. Even if these corrections are taken as signifying auditing having taken place, the accounts for which we have evidence of auditing are greatly outnumbered by those containing no such evidence. In all, only nine out of a total of 70 accounts that were checked showed any of these various signs of auditing activity.⁴²

In addition to this lack of positive evidence of systematic auditing, there are many examples of uncorrected arithmetical errors in these accounts. These are particularly prevalent where large numbers are involved, such as in the bursar's cloth and iron purchases; this, combined with the fact that the errors are of no uniform size or direction, implies that they are indeed simple mistakes in arithmetic rather than

⁴¹ DCM Communar's Account 1524/5 B. Neither of the other copies of this account (A or C) bear any evidence of auditing having taken place. It should be noted that in another case where three copies of an account survive, the hostiller's account for 1473/4, none of the copies show any signs of auditing.

⁴² A total of 70 accounts (not counting duplicates surviving for some years) were checked for signs of auditing procedures having taken place: that is, all of the surviving sacrists', terrors' and chamberlains' accounts, and a sample from the accounts of the other obedientiaries consisting of one account per decade. Of these, only nine (as detailed above) contained such indications.

bearing any significant meaning.⁴³ The frequent occurrence of such errors supports the conclusion that little systematic or effective auditing of the obedientiary accounts took place in this period.

Furthermore, a comparison of the grand totals given in the account rolls with the totals calculated by summing the individual entries in those accounts, as appears in the bottom two rows of the table (fig.3), shows that these figures are identical in only two relatively minor cases, namely the terrar's and the feretrar's accounts. The bursar's account may be excluded from this comparison due to the poor condition of several sections which necessitated the use of the 1478/9 bursar's necessary expenses in the calculations behind the table, and the hostiller's account should also be excluded since totals are not given in the original. Even with these exclusions, however, arithmetical inconsistencies remain in six out of the ten account totals.

The largest degree of error occurs in the almoner's account roll, where the total given at the end of the roll is 4.1% higher than that arrived by summing the individual entries. Much smaller errors occur in the other accounts: the given total is 0.9% higher than the calculated total in both the sacrist's and the infirmarer's accounts, and is 0.9%, 1.1% and 0.8% smaller in the communar's, cellarer's and chamberlain's accounts respectively. The fact that the largest inconsistency is a positive one could conceivably indicate a degree of fraud; nevertheless, the final total is lower than the sum of all the entries in three accounts, and it should be stressed that the overall level of error is very small.⁴⁴ As the figures in the bottom right hand corner of the table above show, the details of the expenditure given in all the priory accounts for a single

⁴³ See Appendix I, pp.329-31.

⁴⁴ Much larger errors were sometimes detected by medieval auditors. An example of this comes from the household accounts of Queen Elizabeth Woodville from 1466/7, in which the sum of the miscellaneous expenses section was changed by the auditors from £26.19s.7d. to £22.12s.11d., a

year came to £1877.3s.9¼d., and the sum of the totals given in the accounts (minus any surpluses from the previous year, which are excluded from this analysis) was £1877.18s.9½d., a negligible overall inconsistency of only 0.04%.

In the circumstances, such an error is laudably small, and the errors which occur throughout the accounts are unsurprising. It is clear that the priory's accountancy system was a complex one, and was barely kept under control from year to year.⁴⁵ Unsurprisingly, overheads were high, with direct administrative costs accounting for 1.4% of the priory's total expenditure. With the addition of building and maintenance costs at 12.0%, pensions, stipends and salaries at 14.8%, stable expenses at 3% and rents at 0.9%, the priory's total bill for overheads was equivalent to fully 32% of its annual expenditure.

Conclusion

The monastery's administrative system was bulky, unwieldy and expensive, rivalling any modern bureaucracy in its demands for accounts in triplicate. In addition to his basic role within the supply pattern of the priory, each obedientiary faced a huge administrative burden throughout the year. Each had servants to clothe, pay and direct and each had an estate to administer with all that that entailed - rents to collect, courts to hold, hay to be mown, tithe-corn to be threshed, buildings to be repaired, and much more besides. It is not hard to imagine the apprehension with which the obedientiaries

difference of 19%. A.R.Myers, *Crown, Household and Parliament in Fifteenth Century England* (London, 1985), p.308.

⁴⁵ Errors abound in the accounts of Norwich Cathedral Priory, and Saunders has suggested that 'we are driven to the conclusion that the obedientiars lived from hand to mouth. They administered efficiently, but finance may have been a thing apart.' H.W.Saunders, *An Introduction to the Obedientiary and Manor Rolls of Norwich Cathedral Priory* (Norwich, 1930), pp.154-5.

must have contemplated the preparation of their annual account rolls, and their reluctance to accept the larger offices is easily understood.

But the vast amount of documentation that the system created provides an invaluable source of information from the consumers' point of view on prices, merchant activity, transport costs and methods and much more besides. The remainder of this study is devoted to the analysis of this information from the period 1460 to 1520, from which particularly complete series of accounts have survived. Indeed, the extent of the information contained within these accounts has meant that in some cases sampling has been necessary. The bursar/cellarer indentures, which record the majority of the foodstuffs bought by the priory, have been sampled at decade intervals, whilst the grain purchased by the bursar has been looked at in summary for every year for which accounts remain, but a detailed transaction-by-transaction analysis has been carried out only for 1495/6. The years chosen for these samples have been selected on the basis of the survival of the evidence. 1495/6 was chosen for the grain analysis because of the existence in published form of the rental for that year.⁴⁶ The bursar/cellarer indentures, which were sampled at decade intervals in order to provide a manageable amount of data for analysis, were then chosen for the same year for comparison, and at ten year intervals from that year. Where the account for the selected year was unavailable the previous one was taken, and the indentures sampled were therefore those for 1465/6, 1474/5, 1485/6, 1495/6, 1504/5 and 1515/6. The other accounts used in this analysis were looked at for the whole of the period under consideration here.⁴⁷

⁴⁶ Lomas & Piper, *Rentals*.

⁴⁷ Details of the surviving accounts are given in Appendix II, p.340.

Chapter Two

Diet

Introduction

Purchases of food and drink accounted for nearly half the priory's spending each year, and two important obedientiaries, the cellarer and the granator, were almost exclusively concerned with providing for these needs. Medieval and modern criticisms of monasticism have often focused on perceived debauchery and extravagance in these areas: one has only to think of Friar Tuck, or of the religious in Chaucer's tales, to see how monks were commonly portrayed as more concerned with the contents of their plates than of their prayers. It is generally considered that the monastic diet was equivalent to that of the aristocracy, being relatively over-supplied with meat, wine and spices.

Barbara Harvey's analysis of the diet of the monks at Westminster Abbey in the 1490s largely confirmed this view, and for the first time provided a detailed breakdown of the elements and nutritional value of that diet.⁴⁸ This study is intended to complement that work by providing a comparable analysis of the monastic diet at Durham. The evidence used here is different, since the kitcheners' daily accounts have not survived in Durham – if, indeed, they ever existed – and so a detailed calorific analysis such as Harvey's has not been possible. However, this is compensated for by the longer period which the Durham accounts have made it possible to study.

In this chapter the sources used in and excluded from this analysis are summarised, the priory's provisioning infrastructure is briefly considered and the margin of error involved in using purchases as an indicator of consumption is

⁴⁸ Harvey, *Living and Dying*, pp.34-71.

estimated. Each of the major constituents of the priory's diet is then looked at in turn. First, the grains consumed as bread, beer and as an ingredient in made-up dishes are considered. The priory's consumption of meat and fish is then analysed, followed by wine, spices and other flavourings, fats, dairy produce and vegetables. In each of these sections the types or varieties of each commodity purchased by the priory are looked at, the priory's consumption is estimated and comparisons are drawn with other great households for which information is available from this period. Finally, the overall make-up of the diet at Durham Cathedral Priory is summarised.

As has been seen (fig.3), food purchases were made by virtually all the obedientiaries of Durham Cathedral Priory to some extent, but the staple diet of the priory was the responsibility of the bursar, cellarer and granator in particular. This chapter therefore concentrates on an analysis of the information relating to the monastic diet at Durham which is contained within the accounts of these three obedientiaries. Grain data is taken from the bursars' and the granators' accounts, whilst most of the remaining food purchases are contained within the bursar/cellarer indentures. These latter documents have survived for a great many years from this period and are very time-consuming to analyse, making a full survey of them beyond the scope of the present study. For the purposes of this analysis, therefore, six sample years have been taken, at as near to decade intervals as the surviving documents would permit. The sample years are 1465/6, 1474/5, 1485/6, 1495/6, 1504/5 and 1515/6.

Other accounts were only used in this chapter when they contained major contributions to the priory's purchasing of a particular commodity. The sacrists' and hostillars' wine purchases, and the communars' spice purchases are therefore

included here, but small ad-hoc purchases of foodstuffs which occur outside the main food sections of the priory accounts are not, unless they are both regular and quantifiable. For example, the bursar's necessary expenses miscellany could include all sorts of food-stuffs; that for 1478/9 includes a cask of oil, 3q.5b. green peas and 4 casks of pike. With the exception of the pike, these were items regularly bought by the bursar and accounted for by him in this section of his accounts. In each of the sample years looked at for the bursar/cellarer indentures the bursar bought a barrel of oil and in most he also purchased a quantity (generally around 4q.) of green peas. These items have therefore been included in this study, but the pike have not.

Other accounts include bits and pieces of edibles too: the 1480/1 accounts analysed in the accounting structure chapter show that every obedientiary who rendered accounts, with the sole exception of the feretrar, spent at least something on food and/or drink. These purchases are rarely quantified, but were clearly quite small. For example the hostillar, in addition to the wine which he bought every year for the guest-hall, spent 2s.0d. on 'ginger, cinnamon and other spices and pears' in 1480/1. Similarly, the cellarer, in his minor account (which supplemented the much more extensive bursar/cellarer indenture), noted the expenditure of 1s.6d. on crab-apples, whilst the terrar spent £1.0s.0d. on 'leavened bread for the cathedral boys', and 2s.0d. on unspecified spices. Since the amounts of each commodity are not given these purchases are not included here; the small sums involved, however, mean that their exclusion cannot seriously bias the results of this survey.

There are also certain other, perhaps more serious exclusions from this analysis. Each bursar/cellarer indenture includes a 'Tallies and Indentures'

section towards the end, immediately before the grand total of expenditure but before the final remainder section. This section accounts for around a quarter of the cellarer's expenditure each year, and as much as a third in 1515/6.

Unfortunately, what was purchased by this sum is not made clear in the indenture. In each year this section comprises three unequal payments to three individuals or combinations of individuals who are respectively described - always in the same order - as 'purveyors to the abbey', 'purveyors of fish at Sunderland and elsewhere' (from 1495/6, 'Sunderland, Neuburnrawe and elsewhere'), and 'purveyors of fish at Tees'. For example, in 1465/6 the cellarer paid £45.1s.8½d. to John Coken and Nicholas Waynpane, '*provisores abbatie*', £47.6s.4d. to Richard Pacock and John Webster, '*provisores piscium apud Sunderland et alibi*', and £4.13s.10d. to William Lowson, '*provisor piscium apud Tese*', a total of £97.1s.8½d., 27% of the total of £364.4s.6d. accounted for in the indenture that year.

It is clear from the totals given that these payments were made in addition to the purchases listed in the indenture, but it is not clear whether, for example, the payments made to fish purveyors were for the purchase of actual additional fish, or were some other type of payment - a service charge or retainer for example. However, the large sums involved suggest that the former is more likely, as do some entries in the 1449/50 cellarer's accounts, which refer to certain fish consignments as being 'from the Tees tally' or 'from the Sunderland tally'. It is possible, therefore, that these entries represent additional fish purchased by the priory, and that the fish consumption figures given below are much lower than they should really be. The fact that the fish consumption of the priory is seen below to have been relatively large, however, makes this seem

unlikely, and even if this were the case it is would still remain unclear what the general payment might have been made for. The significance of these payments must therefore remain an unsolved issue.

Secondly, this analysis does not include the purchases of stock by the sacrist. The sacrists' accounts do not remain for several of these years so a comprehensive study will not be possible. Such an analysis would in any case be problematical due to the obscure vocabulary used to describe several of the animals involved, which often leaves it unclear even which species are intended. For example, in 1485/6 the sacrist's purchases of animals consisted of 46 'twyntris', 2 'stukkes', 127 'hogs' and 'dynmonthez' and 12 lambs, together with a payment of 3s.11d. for the agistment of 19 lambs, and 6s.0d. paid for washing and shearing them. It is unclear what 'twyntris' were, whilst the terms 'hog' and 'dynmonthez', although specific in that they refer to animals in their second year of age, males and females respectively, could be applied to either sheep or pigs in this period. Furthermore, the sacrists' accounts do not make clear whether these purchases represent animals (perhaps received in lieu of rents) intended for the table, or whether they were intended as breeding/ productive stock for the sacrists' farms. The presence of the agistment and shearing costs, however, implies the latter, and it is ultimately on this basis that these purchases are excluded from this analysis.

The provisioning infrastructure of the priory

Provisioning a large institution like Durham Cathedral Priory was a complex business, and as has been seen the accounts of the priory reveal a sophisticated network of departments which shared the responsibility for

purchasing the wide variety of foodstuffs required. This complex accounting network was mirrored in the processes by which foods were handled once they had entered the priory, and even in the use made in these processes of the various geographical and architectural spaces within and around the priory. An example of this is the way in which grain was purchased by the bursar, but then handed over to the granator by indenture and discharged on a monthly basis from the granary by the granator, as discussed in the previous chapter.

Particular light is shed on the processes by which foodstuffs other than grain were handled by the remainder sections which occur at the beginning and end of each of the surviving bursar/cellarer indentures. These list the amounts of various commodities which had been purchased but not yet consumed at the time that the account was made. The cellarer organised this list by grouping items held in the same physical space or room, and this reveals how and where various items were dealt with. The movement of food from one stage to another is particularly clear in regard to beef. First, numbers of live cattle are recorded. These were kept on the priory's farms; mainly at Relley, although Bearpark is also mentioned in 1515/6. For example, the first line of the bursar/cellarer indenture for 1465/6 notes the presence 'in the custody of John Robinson of Relley, 48 heads [of cattle]', comprising 40 oxen and steers and 8 calves. Secondly, six slaughtered cows in the slaughterhouse are recorded, followed by preserved carcasses. These were held in the larder, and comprised 29 salted cattle and one 'powdered' cow (that is, covered in a dry layer of spices) in 1465/6. Sheep, both live and 'powdered', are also mentioned in each of these indentures except that for 1465/6. It can thus be seen not only that the priory reared,

slaughtered and preserved its own meat, but also that it had a number of distinctive areas devoted to these activities.

The other food location mentioned is the fish-house, presumably an approximation to a refrigerator. All the other miscellaneous stores - oil, honey, spices, rice, dried fruit - are mentioned after fish. Although these are mentioned in a new sentence no other room or cupboard is quoted at this stage, so that it is unclear whether these items resided in the fishhouse, or in an unnamed location. The fishhouse would seem an unlikely place for dry goods, and it may well be that these were kept simply in the kitchen, rather than in a special room, and so it was not considered necessary to specify a location.

Purchases versus consumption

It is clear from the presence of these 'remainder' sections in the accounts that there was not an exact correspondence between the goods purchased and the goods consumed by the priory within any one accounting year. This does not cause a problem in the case of the priory's grain purchases, since for those the granator's monthly records of the grain taken from the granary provide consumption figures, but for all the other foodstuffs purchased by the priory there is a real issue here. Clearly, a comparison of the goods purchased in each year with the goods left over from the previous year and those carried forward to the following year would overcome this discrepancy. However, it is only rarely the case that all three consecutive accounts have survived intact; indeed, a full comparison can be done only for one year of those looked at here, 1474/5.

The following tables (figs. 4, 5 and 6) calculate for 1474/5 the amount that the priory consumed of each major commodity for which the bursar/cellarer

indenture is the chief or only source of information. The purchases recorded for 1474/5 are shown alongside the amount carried into this year from 1473/4 and the amount carried from 1474/5 into 1475/6. The total amount of each commodity that was therefore actually consumed within the accounting year 1474/5 is then calculated. Finally, the percentage difference between the amount of each commodity that was purchased and the amount that was consumed in 1474/5 is shown. A positive figure here indicates that more was consumed than was purchased this year, a negative one that less was consumed than purchased. The inclusion of this figure enables an assesment of the margin of error involved in using the purchases each year as if they were consumption figures to be made.

Fig. 5: The quantity of fish consumed by Durham Cathedral Priory in 1474/5, calculated using the remainder sections of the bursar/cellarer indentures

Item	Remainder carried over from 1473/4	Purchases made in 1474/5	Remainder carried over to 1475/6	Calculated consumption in 1474/5	Percentage difference, purchases versus consumption
Dogdraves	80	2327	480	1927	-17.2
Red Herring	1000	57000	2000	56000	-1.8
White Herring		23.5 barrels	5 barrels	18.5 barrels	-21.3
Salmon		34		34	0
Salt Salmon	0.5 barrels	14.5 barrels	2 barrels	13 barrels	10.3
Seals		4		4	0
Sparling		2600		2600	0
Sprats		2 cades		2 cades	0
Pike		3		3	0
Kelyng		420		420	0
Eels		5 aughtendells		5 aughtendells	0
Lampreys		180		180	0
Shellfish		unspecified		unspecified	
Stockfish	40	120	100	60	-50%

Fig. 6: The quantity of meat consumed by Durham Cathedral Priory in 1474/5, calculated using the remainder sections of the bursar/cellarer indentures

Item	Remainder carried over from 1473/4	Purchases made in 1474/5	Remainder carried over to 1475/6	Calculated consumption in 1474/5	Percentage difference, purchases versus consumption
Cattle	95	175	78	192	9.7
Calves	28	28	20	36	28.6
Sheep	130	584	81	633	8.4
Lambs		175		175	0
Pigs		37		37	0
Piglets		359		359	0

Fig. 7: The quantity of sundries consumed by Durham Cathedral Priory in 1474/5, calculated using the remainder sections of the bursar/cellarer indentures

Item	Remainder carried over from 1473/4	Purchases made in 1474/5	Remainder carried over to 1475/6	Calculated consumption in 1474/5	Percentage difference, purchases versus consumption
Fat	2½ barrels	27st.11lb	2 barrels	½ barrel + 27st. 11lb	–
Oil	1 barrel	2 barrels	1 barrel	2 barrels	0
Honey	30 gallons	39½ gallons	40 gallons	29½ gallons	-25.3

Although for stockfish the percentage difference between the amount recorded in the bursar/cellarer indenture as having been purchased in 1474/5 and the calculated actual consumption for that year was as much as 50%, this figure stands out as unusual. It is probably no accident that such a large difference exists only for a commodity that was by definition particularly suitable for storage, being dried for this very purpose. Overall, taking the direction of the differences into account (i.e., such that differences of +20% and –20% would cancel each other out) the average difference between consumption and purchases for 1474/5, where such differences exist, is –6.5%. If only the

magnitude and not the direction of the differences are taken into account, then the average is 28.9%. However, this figure does not take into account the fact that many more commodities do not show a difference: overall, the average difference incorporating these null differences is 11.3%. This last would seem to be the most useful measure, and suggests that it will be appropriate to bear in mind an overall margin of error of around plus or minus 10% when using the purchase figures from the bursar/cellarer indentures for the other sample years used in this analysis.

Grain

The single most important item in the priory's diet was grain, used for both bread, ale, animal feed and as an ingredient in cooked dishes. The bursar bought wheat, barley and oats for the monastic diet, and oats, peas and beans for animal feed. These were handled by the granator, who kept a monthly record of the grain used over the course of the accounting year. As noted above, these monthly figures mean that the issue raised above, that annual purchases and annual consumption may not be equivalent, does not apply in the case of grain, since consumption figures are specifically included in the granators' accounts. The granator also notes a total amount for 'liveries' and 'allowances' in each year. It is not clear what these represented, but it seems probable that the liveries grain was for dependants or beneficiaries of the priory who were entitled to a grain or bread dole. The allowances amount fluctuated considerably, but was normally very low at around 2 quarters per year. This may well have represented waste from the granary. These two quantities are excluded from the following analysis.

Although it is a shame that daily, weekly or monthly kitchen accounts such as those used by Barbara Harvey for her study of Westminster Abbey do not exist for Durham for this period, which means that no information survives as to the actual dishes in which the foods bought by the various obedientiaries were used, the granators' accounts do give some information about the uses to which the various grains bought by the priory were put. This information is often implicit rather than explicitly stated, but a general idea of the destinations of each grain may be satisfactorily inferred. It is clear, for example, that the wheat purchased by the priory was used entirely or almost entirely for bread, despite no explicit use being given in the accounts (probably because it was so obvious as not to need stating), since in some years, the granator's statement of the amount of wheat that remained in the granary is amplified to specify that this quantity included wheat 'milled, not milled and in bread'.⁴⁹ It is interesting to note that this also implies that bread and flour made but not yet consumed remained the responsibility of the granator rather than the cellarer. The fact that bread that had not actually been consumed was counted as remaining to the next year rather than being counted as consumed in the month in which it was made also adds credence to the monthly consumption figures given by the bursar for wheat and barley (see below for a discussion of these). It is worth noting that separate remainder or consumption figures are never given for the small amounts of rye which the priory acquired in most years, and which were included with the figures for wheat, the implication being that it was treated in the same way as wheat, and perhaps even mixed with it.

⁴⁹ DCM Granators' accounts, e.g. that for 1494/5.

Most barley was malted, to become the principal ingredient of beer. Generally speaking all the barley received by the granator in a year was malted, but occasionally this was not the case and there was a remainder of un-malted barley. This occurred in only six of the 34 years for which granators' accounts remain, in which years the average amount malted was 969 quarters, and the average amount unmalted was 133 quarters (12% of the total).⁵⁰ The average amount malted per year for all years in which this figure is given was 984 quarters, so it would seem likely that in the years when some grain was not malted this was simply because the excess was surplus to requirements. No suggestion of alternative uses for the excess are given in the accounts, so it is probable that it simply remained in the granary and was malted in the following year(s). It is difficult to be sure that this was the case, especially since we have only one example of an account in which all the barley was malted following on consecutively from one of the six accounts in which some was reserved. That one example, however, did have by far the smallest amount of barley being bought in this period, just under 644 quarters, an amount which was then malted together with the remainder of unmalted barley from the previous year.

The situation for oats was more complex; some were malted, some were used for animal fodder and a small amount was given to the kitchen, presumably for human consumption. The oats mentioned first in the granators' accounts were for either the first or the last of these, oats for animal fodder being mentioned in a separate fodder section along with peas and beans. Some oats were passed to the kitchen in every year for which accounts remain.⁵¹ In 22 of the 32 years for

⁵⁰ These years were 1461-4, and 1479-80.

⁵¹ The amount passed to the kitchen is left blank in the 1489/90 account, and the oats section is missing from the 1508/9 account due to damage to the end of the parchment roll (the last surviving line on the document consists of the oats section heading).

which these figures are given this was a standard quantity of 16 quarters, and comprised the whole of the oats received by the granator that year. In the remaining ten years, varying amounts between 12 and 20 quarters were passed to the kitchen, giving an average yearly amount of $15\frac{3}{4}$ quarters. These were probably used in pottage and similar dishes.

In addition, in these years the granator received a significant, though greatly varying, amount of oats which were malted. This amount varied from 30 quarters in 1464 to 256 quarters, three bushels in 1461, but averaged 99 quarters per year.⁵² It is worth noting that there is a close correspondence between the years in which oats for malting were received, and the years in which the granator recorded a surplus of barley which was not sent for malting.⁵³ As well as these amounts, the barley section of the bursars' and granators' accounts also regularly included an average of 36 quarters of 'haver maltum', malted oats, from Billingham.⁵⁴ The inclusion of these with the barley purchases throughout the priory's records, together with the correspondence between the presence of additional malt oats and spare barley, implies that these malt oats were used with malt barley in the priory's brewing. Overall, oats made up 6% of the malt used by the priory in this period.⁵⁵

Finally, some oats (an average of 375 quarters per year), and all the peas and beans, were bought for fodder. It can therefore be calculated that of all the

⁵² Oats to be malted that are included in this average were received in 1460-4, 1479-81, and 1485/6. They were also received in 1489/90, but this year has been excluded from this analysis since many figures have not been given, and in 1492/3 which has been excluded from the average since the amount malted is not specified.

⁵³ See footnotes 50 and 52 above.

⁵⁴ 30 quarters were received in 1460/1, 35 in every year for which accounts remain from 1461/2 to 1477/8, 37 in 1480/1, just under 31 in 1485/6, and 37.5 in every other year for which accounts remain from 1479/80 onwards.

⁵⁵ The average amount of barley malted in a year was 983.83 quarters; the average *haver maltum* received was 36.1 quarters, and the average extra malted oats received over the whole period was 26.2 quarters per year.

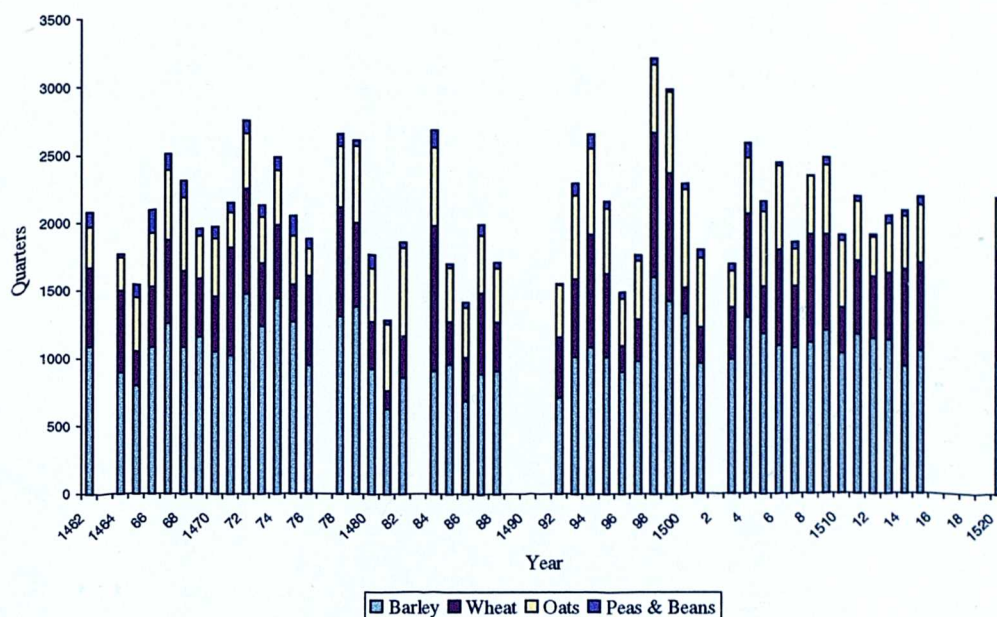
grain which was used by the priory in an average year, 24% was for human consumption as bread or as an ingredient in food, 52% was malted and used to make beer, and 24% was for fodder.⁵⁶ There does not appear to have been any difference between the oats bought for the monastic kitchens and those bought for feeding horses: in 1489 and 1492 the two are not separated into two sections, as was the normal practice, but are listed together, whilst in 1515, 1517 and 1520 some of the oats listed under the fodder section are noted to have been malted.

Each year the various grain sections of the bursars' accounts show the same basic information – the amount of each type of grain (wheat, barley, oats, and small quantities of peas, beans and rye) bought for the priory that year. As has been seen, this is not equivalent to the amount consumed by the priory that year, but this information does form a natural starting point for an overview of the priory's usage.

Although there were variations in the exact proportions of the different grains bought from year to year, the basic pattern remained fairly consistent over this period. Barley formed the bulk of the grain bought by the bursar, with wheat coming second, then oats, and finally a small amount of peas and beans. (Rye purchases were insignificant). On average, a total of 2118.5 quarters of grains were accounted for by the bursar each year, a sum made up of 1074 quarters of barley (50.7%), 539.6 quarters of wheat (25.5%), 440.3 quarters of oats (20.8%) and 64.6 quarters of peas and beans (3.0%). The extent to which this quantity and its constituent parts varied from year to year may be seen on the graph below (fig.8).

⁵⁶ This calculation uses the amounts used per year, as found in the granators' accounts, which are different from the amount bought as given in the bursars' accounts. In an average year, the priory used 481.4 quarters of wheat and 15.8 quarters of oats for food, 1020.8 quarters of barley

Fig. 8: The amount of each type of grain bought by the bursar, 1460-1520



The granator's accounts include a record of the monthly discharge of each of the principal grains from the granary, and these can be used to see exactly how much the priory actually consumed in each year and indeed in each month. The granator's accounts exist for 33 years from 1460-1520, but those for 1509 and 1513 are in bad condition with major omissions in the wheat and barley sections, whilst the oats section is missing from the 1508 account. In addition, certain accounts have been excluded from this analysis because of irreconcilable inconsistencies in the monthly data.⁵⁷ The data used here comes from the

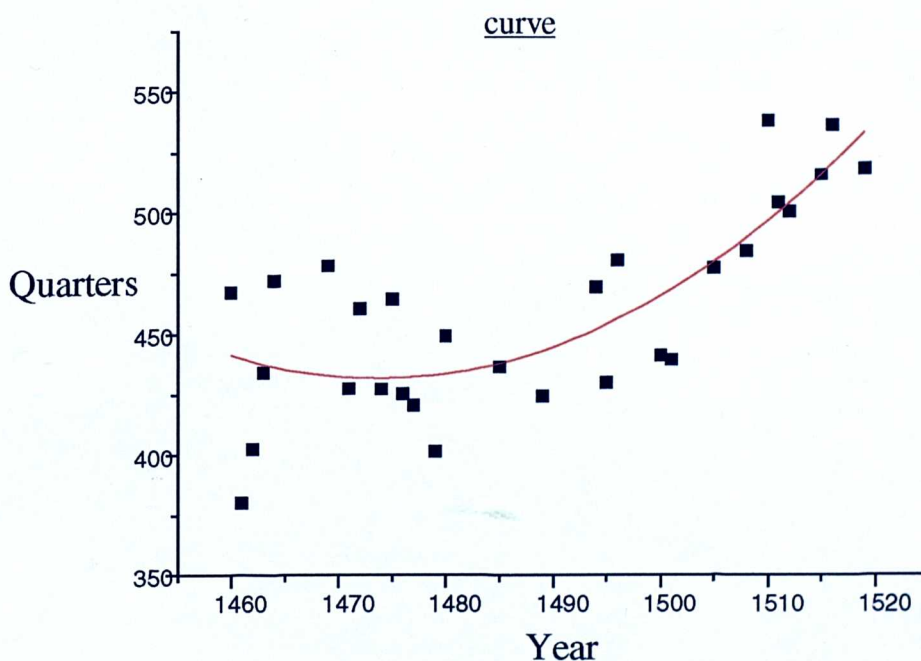
(including the malt oats from Billingham which cannot be separated out) and 53.8 quarters of oats for malt, and 440.1 quarters of oats and 63.5 quarters of peas and beans for fodder.

⁵⁷ For each account, the total amount stated in the account as having been used that year was compared with the total of all the monthly amounts given. Small errors were only to be expected, but major differences (>2% out) – which probably arose from a misreading of damaged sections – meant that that years account was omitted from this analysis. For wheat, of 31 data sets there was an exact correspondence in all but 7 cases. In 5 cases the error was less than 2%, so these were kept in, and two cases were discarded (1481/2 and 1492/3, with errors of 80% and 7% respectively). For barley, of 31 data sets 8 had errors of between 4% and 40% and were omitted (1462, 1474, 1476-7, 1479, 1481, 1501 and 1512). Of the remaining 23, 10 matched exactly and 13 had errors of <2%. For oats, of 32 data sets there was no monthly usage for 16 (these were

remaining 29 wheat accounts, 23 barley accounts and 32 oats accounts, although it should be noted that in half of these valid oats accounts it is recorded that no oats were used in that year.

An overall view of the priory's grain consumption from these monthly figures shows that in an average year 1049.4 quarters of barley, 458.5 quarters of wheat and 91.9 quarters of oats were consumed. Consumption of these grains fluctuated from year to year, which again creates more confidence that these are true, rather than simply conventional, figures. No strong trends occurred in either barley or oats, but for wheat the pattern is different. Here there was a marked upwards trend over the latter half of this period following a dip in the 1470s, as the following graph shows.

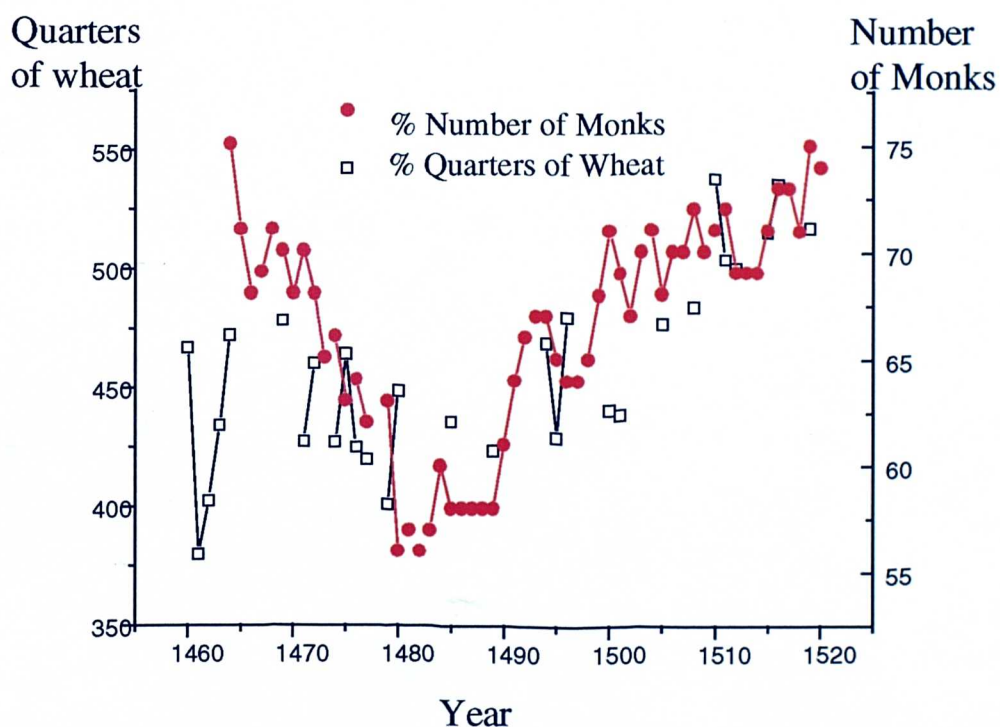
Fig. 9: The amount of wheat consumed by the priory, 1460-1520, with best-fit



included), and all of the remaining 16 were included, 14 with an exact correspondence between the given and calculated totals and two with an error of <1%.

Since wheat was a staple item of diet, such an increase seems surprising. However, whilst the servant population appears to have remained stable, the monastic population changed over this period, and there is a marked degree of correspondence between the changing size of this population and the priory's wheat consumption.⁵⁸ It seems probable, therefore, that the wheat consumption figures were relatively closely related to the numbers of people eating in the priory, rather than reflecting an increased per capita consumption of wheat.

Fig. 10: The priory's annual wheat consumption, 1460-1520,
compared with the monastic population



⁵⁸ For population figures, see chapter one, pp.14-5.

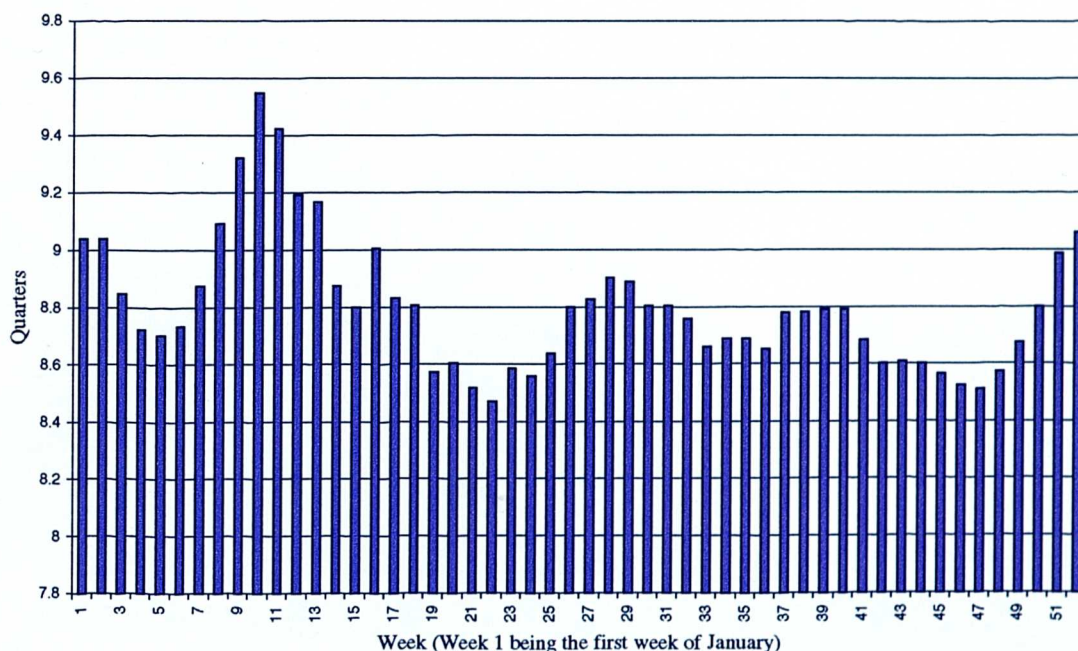
The fact that the granator recorded the monthly discharges from the granary means that the data can be checked to see if any fluctuations in consumption occurred over the course of the average year, rather than over a progression of years. However, patterns cannot easily be seen in the data as given in the accounts, as the months given are four-weekly blocks dating from the start of the account, in other words from Pentecost each year. Since the date of this feast depended on the date of the previous Easter, the months as given in the accounts are not comparable from year to year. This means that monthly or seasonal fluctuations are obscured. Even patterns which might be expected to have occurred as a result of the Church calendar are not visible, since the dates of Lent (for example) in any one account are calculated on the date of Easter that year, rather than the date of Easter in the preceding accounting year which was what determined the start date of the account. It was this fact which led to the inclusion of odd weeks in the monthly data, rather than simply 13 four-week months. For example, the granator's account of 1480/1 contains 13 months and 3 weeks, since Easter in 1480 was three weeks earlier than in 1481, falling on the 2nd and the 22nd April respectively. Conversely, in 1471/2 only 12 months and 1 week are accounted for, since Easter fell on the 14th April in 1471 and the 29th March in 1472.⁵⁹

It was therefore necessary to adjust the data given to match the calendar, rather than the church year. Since the consumption is only given in month blocks, yet finer distinctions were needed in order to make the necessary adjustments, each month's consumption was averaged equally between its four constituent weeks. Thus a month in which 32q. of wheat were used was said to

⁵⁹ C.R.Cheney, ed., *Handbook of Dates for Students of English History* (London, 1961).

contain four weeks in each of which 8q. of grain were used. These weekly figures were then distributed across the year, and the average for each calendar week across this period was calculated. The resultant graph shows a series of mild peaks and troughs within a fairly narrow band – between 8q.4b. and 8q.7b., averaging 8q.6b.2p. per week over the whole year. However, there is a clear peak in the Lenten period, at the height of which the priory’s average weekly wheat usage over this period rose to 9q.4b.2p., an 8.5% increase on the overall average. It would seem that the monks’ consumption of bread rose in Lent, perhaps to compensate for lower levels of other foods.

Fig. 11: The weekly consumption of wheat by the priory, based on four-week averages and adjusted to the calendar rather than the church year, 1460-1520



Using the daily kitchen accounts which have survived from Westminster Abbey, Barbara Harvey has calculated that 45-50 gallons of best ale were made

from one quarter of malt barley (malt oats do not seem to have been used in Westminster in this period).⁶⁰ It seems likely that a similar multiplier would apply in Durham too, and for simplicity I shall also assume that oats and barley were equivalent. The amount of malt oats used by Durham was in any case small enough for differences in the relative productivity of the two grains to make very little difference to these figures. Oats were malted only in 16 of the 32 years for which records remain, and the average amount of oats used in those years was only 91.9 quarters, or 46q. per year over the whole of this period, a negligible quantity compared to the 1049.4 quarters of barley used in an average year. In total, then, 1095.4 quarters of grain were malted in an average year.⁶¹ Assuming that the whole of this quantity was successfully converted into beer, this would have yielded somewhere in the region of 50,000 gallons of ale per year, or 137 gallons per day.⁶² Given that the average population of the priory throughout this period comprised around 40 monks and around 110 liveried servants, this seems roughly what one would expect, fitting well with the general concept of a gallon of ale a day being a standard individual allowance.⁶³

For bread, the priory used an average of 458.5 quarters of wheat per year, although as has been seen this did not remain constant over this period. Taking this average amount, however, and assuming that the Durham kitchens produced the same number of loaves per quarter of wheat as those of Westminster, it can be calculated that the priory consumed 48,601 loaves or

⁶⁰ Harvey, *Living and Dying*, p.58.

⁶¹ That is, 1049.4 q. of barley and 46q. of oats.

⁶² If a figure of 47.5 gallons of ale per quarter is used, this gives 49, 846.5 gallons.

⁶³ Servants would probably have received a weaker brew than that assumed in these calculations, which would make up the shortfall here of c.13 gallons per day. K.L.Wood-Legh, ed., *A Small Household of the XVth Century: Being the account book of Munden's Chantry, Bridport* (Manchester, 1956), p.xxiv, notes that the ale bought for the chantry priest there was described as 'best' and that bought for the household as 'second'.

97,202 lb of bread in an average year.⁶⁴ Again, this seems commensurate with standard allowances made in other medieval households, working out at 133 loaves per day. As with ale, it can be assumed that a monk received a loaf a day and servants slightly less than this.

Meat and fish

An impressive range of different types of animals and fish were bought for the priory table over this period. Cattle were specified to be oxen, steers, cows or calves, or on one occasion a bullock; sheep were described either simply as sheep or as ewes or lambs, whilst pigs, boar and piglets were all mentioned individually. Poultry was the most diverse class, including pullets, hens, penny-hens, geese, half-penny geese and capons. On occasion much rarer and more expensive varieties of poultry were also eaten. Cygnets occur sporadically throughout these accounts, with as many as 20 pairs being purchased for the Christmas feast of 1504, whilst four cranes were bought in 1515, at the astounding price of 3s.4d. each.⁶⁵

The fish bought by the priory were even more varied. The staples were members of the herring and cod families. Herring were described as white (either dried or pickled in brine) or red (smoked), and were joined by herring-sprats, sprats and sparling. The cod family was represented by dogdraves, ling, stockfish (dried cod) and powdered (i.e. preserved in dry salt) kelyng. Other major constituents of the priory's fish consumption were salmon, which came either salted or fresh, and eels, again salt or fresh and including lampreys. Plaice and sturgeon were also occasionally bought. Shellfish were represented by cockles

⁶⁴ Harvey, *Living and Dying*, p.59, calculated that at Westminster a quarter of wheat produced 106 conventual loaves, each weighing roughly 2.5lb before baking and 2lb when cooked.

and mussels, and in most years at least one dolphin, porpoise or seal entered the priory. Fish purchases also included a substantial element of unspecified quantities of assorted fish: where types are named, these included mudfish, pike, pickerel, roach, tench, bream, dace and fluke. The following table (fig. 12) summarises the quantities of each of the principal types of meat and fish bought by the cellarer in each of the sample years looked at here.

Fig. 12: The amounts of the principle varieties of meat and fish recorded in the sampled bursar/cellarer indentures, 1465 – 1515.

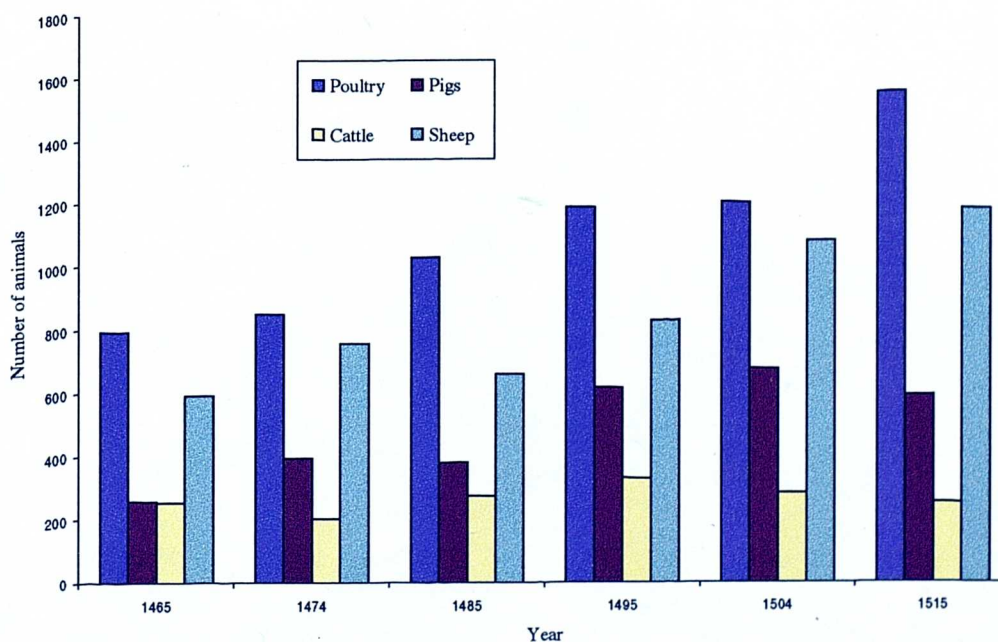
COMMODITY	1465/6	1474/5	1485/6	1495/6	1504/5	1515/6
Pullets	37				61	409
Capons	147	127	309	297	262	182
Geese	156	270	219	352	307	299
Hens	456	455	503	542	587	681
TOTAL POULTRY	796	852	1031	1191	1217	1571
Boars		2	3	3	4	3
Pigs	47	37	37	31	32	48
Piglets	213	359	344	589	653	553
TOTAL PIGS	260	396	381	620	685	601
Mixed cattle types	57	60	36	224	98	159
Cows	78	39	158	39	92	49
Oxen	39	56	29	26	69	32
Steers	54	20	20	2		
Calves	26	28	33	43	29	16
TOTAL CATTLE	254	203	276	334	288	256
Sheep	520	584	520	693	783	928
Lambs	72	175	140	149	315	271
TOTAL SHEEP	592	759	660	842	1098	1199
Dogdraves	1637	2327	2163	2136	2755	2751
Dolphin/seal/porpoise	2	4	8.5	10.5	10	5
Barrels of white herring	11	23.5	23	23	30.98	33
Red herring (1000s)	23	51.5	48.5	51	30.5	18

From so many different types of commodity it can be very hard to gain an overall picture. The following bar chart (fig. 13) summarising the meat purchases listed in the sampled bursar/cellarer indentures is much simplified, showing only

⁶⁵ DCM Bursar/cellarer indentures, 1504/5 and 1515/6.

the total number bought of each of poultry, pigs, cattle and sheep. Fish are not shown on this chart since the proliferation of types and measures makes comparison from year to year impossible. The chart shows clearly that the overall amount of meat purchased by the priory increased dramatically over this period. To an extent this may be explained by the upsurge in population in the monastery towards the end of the fifteenth and beginning of the sixteenth century (from an average of c.60 monks per decade in the mid-fifteenth century to c.73 by the end of this period, of whom all but c.20 were resident in the main house at Durham). However, such an increase cannot explain the virtual doubling of the number of poultry bought, from 796 in 1465/6 to 1571 in 1515/6, nor the similar increase in sheep. It seems likely that these increases must represent a major change in the scale and extent of meat-eating in the monks' diet over this relatively short period – equivalent perhaps to a single monk's career.

Fig. 13: Summary of the total numbers of animals recorded in the sampled bursar/cellarer indentures, 1465-1515.



Interestingly, a glance at the main fish diet elements in the table on the previous page (fig. 12) suggests that this change was in no way made at the expense of fish eating: on the contrary, this too seems to have increased in much the same way, although the pattern is complicated by the rise and fall in popularity of different types of fish within the total.⁶⁶ Dogdrave purchases rose, though not smoothly, over this period. More dramatically, purchases of stockfish went from only 36 in 1465/6 to 720 in 1515/6. The number of barrels of white (salted) herring purchased by the cellarer also increased steadily, from 11 in 1465/6 to 33 in 1515/6, although overall the number of herring purchased remained relatively stable, the slight drop seen in the table above for 1515/6 being anomalous and not symptomatic of a general decline; in 1520/1, a total of c.79,000 herring were bought (comprising 34,000 red herring and 45 barrels of white herring).

These figures for the meat and fish consumed by Durham Cathedral Priory can, however, be used to draw a rough comparison with the consumption of these foodstuffs found at Westminster. It should, however, be noted that the relevant figures for the two households are not directly comparable, although the same estimates of edible meat weights per carcass have been used for both. In the first place, the evidence used is of a different nature: the Durham figures are taken from the purchases accounted for by the cellarer on an annual basis, whilst those for Westminster are calculated from the kitcheners' daily records of the meals actually served. It is unlikely, however, that these two records are widely disparate, especially since the Durham purchases are averaged over the whole of

⁶⁶ C.M. Woolgar, *The Great Household in Late Medieval England* (New Haven, 1999), p.132, notes a similar increase in the amount of meat eaten in several large households in this period, but matched by a decline in the amount of fish consumed.

this period, and since the figures given below are for the estimated edible weight of meat and fish, taking waste (bones, skin, etc.) into account.

Secondly, the populations of the two monasteries were not identical. For the purposes of this comparison it has been assumed that Barbara Harvey's assumption that the number of extra consumers of the priory's meals (corrodians, servants and the poor) would have been cancelled out by those monks who absented themselves from the common meals on any one day holds as well for Durham as for Westminster. But the average number of resident monks at Westminster in this period was around 50, compared to around 40 at Durham, and this should be born in mind when comparisons are made. Moreover, the Westminster figures exclude meat and fish eaten within the abbot's household, for which separate accounts were compiled.

Finally, the figures for meat and fish consumption at Westminster are located to different rooms; meat was primarily eaten in the misericord and fish in the refectory, and it is the figures for consumption in these rooms that are given. However, a substantial amount of meat would also have been eaten in the refectory, not as joints but as an ingredient (minced, ground or otherwise rendered virtually unrecognisable) in made-up dishes. The actual meat figures for Westminster might perhaps be as much as 50% higher than those given here, therefore.⁶⁷ Fortunately it is unlikely that the fish data is as affected by this anomaly; some expensive and luxurious fresh-water fish varieties were no doubt served in the misericord, but the volume involved is unlikely to have been great. Fish-days, by definition fasts, were days on which the rules governing attendance

⁶⁷ Harvey, *Living and Dying*, p.51: meaty dishes (i.e., those in which meat was one ingredient amongst many) were served in the refectory on about 150 days of the year, whilst on the same number of days flesh-meat was served in the misericord.

at the common meal in the refectory were stricter, so it is likely that the fish figures given here are much more nearly equivalent to those for Durham.

With all these caveats borne in mind, however, it can be seen that the amount of fish, and especially the amount of meat eaten at Durham was far higher than was the case at Westminster (figs. 14 and 15). An estimate of comparable figures might be made by adding 50% to the Westminster meat figures and perhaps 10% to the Westminster fish figures to allow for the quantities of these commodities served in other rooms, and then dividing the resultant totals by 40 for Durham and 50 for Westminster. If this done, a total annual meat allowance for a Westminster monk of perhaps 207.3 kg can be compared with an equivalent figure for Durham of 1003 kg, with equivalent fish figures of 237.1 kg and 365.4 kg respectively. Overall, then, it would appear that the inhabitants of Durham Cathedral Priory consumed nearly four times as much meat as those of Westminster, and over 50% more fish.

Fig. 14: Estimated weight per annum of meat served at Durham and in the misericord at Westminster in the late fifteenth century⁶⁸

Type of meat:	Durham		Westminster	
	Kilogrammes	%	Kilogrammes	%
Beef	26,103.8	65.1	1,634.4	24.0
Veal	497.9	1.2	793.6	11.5
Mutton	7,369.9	18.4	3,180.3	46.0
Lamb	761.5	1.9	78.1	1.0
Pork	3,640.9	9.1	961.1	14.0
Poultry	1,746.8	4.4	113.5	1.5
Other	-	-	149.4	2.0
Total	40,120.8	100.1	6,910.3	100.0

⁶⁸ In figures 14 and 15, data for Westminster Abbey is taken from Harvey, *Living and Dying*, pp. 48, 53.

Fig. 15: Estimated weight per annum of fish served at Durham and in the refectory at Westminster in the late fifteenth century

Type of fish:	Durham		Westminster	
	Kilogrammes	%	Kilogrammes	%
Cod Family ⁶⁹	4,995.7	34.1	5,255.1	49.0
Eel	86.3	0.6	491.2	4.5
Herring	7,328.3	50.1	847.6	8.0
Other fatty fish ⁷⁰	2,074.3	14.2	321.9	3.0
<i>Total fatty fish</i>	<i>9,489.9</i>	<i>64.9</i>	<i>1,660.7</i>	<i>15.5</i>
Other fish ⁷¹	160.9	1.1	9,115.9	35.5
Total	14,646.4	100.1	10,776.6	100.0

It is possible, perhaps likely, that a certain amount of this difference could be explained by a higher proportion of the food entering Durham being consumed by servants, dependants and certainly guests than at Westminster. To some extent, too, the inclusion of the meat eaten at the abbot's table at Westminster would no doubt serve to close the gap. However, the difference between the figures for the two monasteries is so large as to leave little doubt that meat, at least, was a far greater feature of the diet at Durham than at Westminster.

Moreover, the proportions of the various types of meat and fish eaten at the two monasteries were noticeably different. Cattle formed the great majority - 65.1% - of the meat eaten at Durham, with mutton taking second place at 18.4%. By contrast, at Westminster mutton was the most common meat, accounting for 46% of the meat eaten in the misericord, whilst beef formed only 24.0% of the meat eaten at Westminster. Taking veal into account, the gap closes somewhat,

⁶⁹ This includes cod, dogdraves, stockfish, ling etc.

⁷⁰ This includes herring, eels, salmon, sprats etc.

since this was much more common at Westminster than Durham, but the difference is still striking, the two together forming 66.3% of the meat eaten at Durham and only 35.5% at Westminster. It is unlikely that the types of meat eaten in the refectory or at the prior's table at Westminster Abbey would have changed these proportions significantly. Whilst these proportions probably reflected farming patterns in the two regions, it is interesting to note that the Durham figures are very similar to those found by Woolgar at the household of Edward Stafford, Duke of Buckingham, in 1503/4.⁷²

The differences in scale between the diets of the two monasteries is less pronounced in the case of fish than meat, but here too the varieties eaten are very different. At Durham, herring accounted for fully 50% by weight of the fish consumed by the priory, compared to a mere 8% at Westminster. Other fatty fish (with the exception of eel) also featured much more strongly in the diet at Durham, due primarily to the much higher consumption of salmon, both salted and fresh, there than at Westminster. Members of the cod family were marginally less common at Durham, accounting for 34.1% of the fish eaten there compared to 49% at Westminster, but it was 'other' fish which primarily took the place at Westminster of the vast numbers of herring consumed at Durham. In particular, 23% by weight of the fish prepared by the Westminster kitchens were whiting, which were only very occasionally bought by Durham priory, and in negligible quantities.

⁷¹ Other fish were plaice, whiting, etc., and fresh-water fish such as pike, roach, etc. Seals are included here for the Durham figures. Crustaceans and molluscs are excluded from this table.

⁷² There are several similarities between these households. That of Buckingham in 1503/4 had a population of 130 and a total annual expenditure of £2,061, of which £801 was spent on food and drink, figures which are comparable with those seen for Durham (see figs. 1-3). Cattle accounted

'White meats': Eggs, cheese and milk

According to Harvey, these were immensely popular and important items in the monastic diet of this period.⁷³ They certainly appear with great frequency in contemporary recipe collections and menus.⁷⁴ However, they are surprisingly elusive in the Durham obedientiary accounts, appearing neither in the bursar/cellarer indenture, nor in either the bursars' or the cellarers' purchases. Some eggs do appear in the income section of the bursar's account for 1536/7, when 250 are recorded to have been received from each of Cowpen Bewley and Billingham, but this is an isolated example.⁷⁵ The latest surviving cellarer's weekly accounts, from 1449/50, show that despite not appearing anywhere else in the priory archive eggs were certainly used by the priory in large numbers. These weekly accounts exist for every week this year, and I have looked in detail at the first week of each month. On these figures, the average number of eggs consumed by the monastery in a week was 808, a number which rises to 940 if Advent and Lent are excluded from the reckoning.⁷⁶

Cheese, again, appears only occasionally in these accounts. The purchase of cheese is mentioned in passing in the cellarer's account for 1525/6, and cheese fats are referred to in his accounts for 1469/70, 1480/1, 1512/3 and 1525/6.⁷⁷ It seems likely that cheese was largely made within the priory kitchens, and this is

for 65.7% of the meat eaten by this household in 1503/4, and sheep for 32.5%. Woolgar, *Great Household*, pp.12, 113, 134.

⁷³ Harvey, *Living and Dying*, pp.61-2.

⁷⁴ For example, these items appear in many of the dishes listed in the medieval recipes collected in C.B.Hieatt and S.Butler, eds., *Curye on Inglysch: English Culinary Manuscripts of the Fourteenth Century (including the Forme of Cury)* (Early English Text Society, supplementary ser., 8, 1985). Many recipes use combinations of such 'white meats', such as the 'Brewet of ayren' (egg soup) which includes water, butter, cheese and eggs, or the ravioli which consist of grated cheese, eggs, butter and dough (both p.118).

⁷⁵ Fowler, *Account Rolls*, Vol. III pp. 674, 676.

⁷⁶ DCM Cellarer's account, 1449/50. Only a few eggs were consumed in Advent (170 in the week commencing 13th December 1449), and none in Lent.

⁷⁷ Fowler, *Account Rolls*, Vol.I, pp.93, 97, 105, 108.

supported by the cellarer's purchase of a cheese fleke – a hurdle for drying cheeses on – in 1465/6.⁷⁸ However, milk is also largely missing from the documentary evidence, although it is occasionally mentioned in the cellarer's 1449/50 weekly accounts. In the thirteen weeks looked at in the 1449/50 period, milk is mentioned on only three occasions. In the week commencing 4th April 1450, 8 gallons of milk were bought at a cost of 8d.; it may be surmised from this that the 1s.2½d. spent in the week commencing 13th December 1449, and the 6d. spent in the week commencing 7th February 1450 represented 14.5 and 6 gallons of milk respectively.⁷⁹ Extrapolating from these figures gives an estimated weekly average milk consumption for the priory of 2.2 gallons, or 17.5 pints, a much smaller amount than might be expected. It may well have been the case that this amount was supplemented by milk from the priory's own cattle and that eggs were also primarily home-produced; in this case these items, like the vegetables discussed below, would never have entered the accounts.

Vegetables, herbs and fruit

The extent to which fresh fruit and vegetables formed part of the monastic diet has always been a matter for conjecture, largely because items grown in a monastery's own gardens may never have passed through the accounts. It is clear that there were several gardens at Durham, although they have left only a few traces in the accounts. An underground gutter in 'the abbey garden' (perhaps the center of the cloisters) required repair in 1459/60 and again

⁷⁸ Fowler, *Account Rolls*, Vol.I, pp.90-1.

⁷⁹ DCM Cellarer's account 1449/50, Months 8, 10 and 12. J.E.T.Rogers, *A History of Agriculture and Prices in England, From the Year after the Oxford Parliament (1259) to the Commencement of the Continental War (1793), Compiled Entirely from Original and Contemporaneous Records*, Vol. 4 (Oxford, 1882), p.360, states that milk could cost as little as a penny per gallon but was

in 1478/9, and two fothers of flagstones were also bought for that garden in 1459/60.⁸⁰ This may have been the priory's pleasure garden, where the monks were accused, in the bishop's visitation of 1442, of repairing for play and loitering after Compline.⁸¹

Other gardens were clearly used, to some extent at least, for the production of food and herbs. The prior and infirmarer each had a walled herb-garden for which wall repairs and the purchase of seeds (and even manure in the case of the infirmarer) are recorded.⁸² Moreover, the bursar was paying a pension of 5s.0d. to the prior's gardener in 1536/7.⁸³ The sacrist and almoner also had gardens: in 1420/1 the almoner bought onion-seed for his, but by 1535/6 it was rented by the sacrist in addition to his own nearby.⁸⁴ The hostillar had a garden in 1331, when he planted hemp seed there.⁸⁵ No specific references to the terrar's garden are to be found, but in 1463/4 the terrar bought 2q.3b. of unspecified seeds, for £1.11s.8d, 7% of his total expenditure in that year, implying significant gardening activity.

Finally, the cellarer, as one would expect of the obedientiary with special responsibility for the priory's food supply, appears to have had several garden spaces. The main one was known as the Impgarth, a name which may imply nursery activities such as propagation.⁸⁶ This was clearly a kitchen garden, as seeds and plants feature regularly in his accounts. For example, in 1466/7 the cellarer purchased 2lb of onion seed and other seeds for planting there, together

more usually 2d.; if this were the price at Durham in the two months for which no price is given, the quantities suggested would be halved.

⁸⁰ Fowler, *Account Rolls*, Vol.I p.88, Vol. III p.647.

⁸¹ Dobson, *Durham Cathedral Priory*, p.70.

⁸² Fowler, *Account Rolls*, Vol. I p.271-2, Vol.II p.558, Vol.III p.611.

⁸³ *ibid*, Vol. III, p.704.

⁸⁴ *ibid*, Vol. I, p.228, Vol. II p.419.

⁸⁵ *ibid*, Vol.I p.115.

with herbs and vegetables.⁸⁷ Onion seed, herbs and other unspecified seeds are also listed in the 1471/2 account, and in 1500/1 both onion and leek seed are mentioned.⁸⁸ The cellarer's accounts also contain references to fish-ponds (clearly in use, since they were cleaned in 1459/60), a pig-sty and at least one orchard.⁸⁹

References from other monastic sources are at least as sparse, but it is clear that several gardens belonging to various obedientiaries were standard, and that these gardens were used to grow at least some table crops. The most detailed evidence on monastic gardening from this period comes from Norwich, where some of the gardener's accounts have survived. From these it is clear that Norwich Cathedral Priory had at least three different gardens: the kitchen garden, which grew garlic, shallots, porrets, leeks, colewart (like spinach), beans, parsley and other unspecified herbs; the infirmary garden, which grew saffron, and which produced honey for the infirmarer to sell; and orchards, including apple, pear, cherry, walnut and hazelnut trees.⁹⁰

Both the cellarer and the kitchener of Battle Abbey had gardens which they cultivated: watering-cans were purchased for the two gardens in 1464/5, and the cellarer's salary payments in 1478/9 included 16s.8d. for the gardener's salary and robe.⁹¹ The only crop mentioned is onions, for which the cellarer purchased onion seed for sowing in his garden in 1442/3 and in 1478/9.⁹² At

⁸⁶ J.H.Harvey, *Early Nurserymen: with Reprints of Documents and Lists* (London, 1974), pp.18-21.

⁸⁷ Fowler, *Account Rolls*, Vol.I p.91. See also pp.92-4.

⁸⁸ DCM Cellarer's accounts, 1471/2, 1500/1.

⁸⁹ Fowler, *Account Rolls*, Vol.I, p.88 contains references to fish ponds and an orchard; for the pig-sty, DCM Cellarer's account, 1480/1. In DCM Cellarer's account 1500/1, a payment is made for fencing 'le Westorcharde', possibly implying a distinction.

⁹⁰ C.Noble, *Farming and Gardening in Late Medieval Norfolk; Norwich Cathedral Priory Gardeners' Accounts* (Norfolk Record Society, 61, 1997), pp.5, 8-9.

⁹¹ Searle and Ross, *Battle Abbey*, pp.140, 151.

⁹² Searle and Ross, *Battle Abbey*, pp.136, 150.

Abingdon Abbey, there was a full-time gardener who produced his own accounts. He appears to have been primarily in charge of orchards, for the only produce for which he accounted was fruit and nuts. Some of these were sold – fruit produced in his garden sold for 10s.0d. in 1450-1, and filberts netted 1s.11d. – but he was evidently also supplying some to table, as he bought 2s.8d. worth of fruit in the same year.⁹³ There were at least five gardens at Abingdon, probably more: the gardener had at least a garden and a croft (and the orchards may have been in addition to these), and he received rents from the clerk of works and the precentor for gardens leased to them.⁹⁴ In addition, the chamberlain certainly had a garden too, for in 1428/9 he spent 1s.1d. on seeds for it.⁹⁵

Early gardening manuals, such as John Gardener's *Feat of Gardening* (1440) and *Le menagier de Paris* (1393), make it clear that the cultivation of a wide variety of garden crops was common throughout much of northern Europe at this time. Well over 100 types of fruit and vegetables are mentioned in these two books, and this list excludes such common crops as garlic, shallots and cress, which were presumably so commonly grown as to need no instruction, and saffron and carrots which may have been the preserve of specialist growers.⁹⁶ Moreover, John Fitzherbert's *Boke of Husbandry* (1523) not only advises the husbandman to grow several varieties of pears, apples, nuts, cherries and plums, but also explains how the necessary grafting may be carried out.⁹⁷

The fact remains, however, that there is only very patchy information

⁹³ R.E.G.Kirk, ed., *Accounts of the Obedientiaris of Abingdon Abbey* (Camden Society, New Ser., LI, 1892), pp.129-30.

⁹⁴ Kirk, *Abingdon Abbey*, p.128.

⁹⁵ Kirk, *Abingdon Abbey*, p.105-6.

⁹⁶ Harvey, *Early Nurserymen*, pp.18-21.

⁹⁷ J.Fitzherbert, *The Boke of Husbandrye* (1523), ed. W.W.Skeat (English Dialect Society, 1882), p.87.

available on the crops actually grown in monastic gardens, and little or no record of the amounts of these crops which entered the monastic diet. The bursar/cellarer indentures for 1465 and 1474 record the purchase of onions costing 5s.2d. and 5s.4d. respectively, but the weight or number of onions bought is not given. The lack of detailed kitchen accounts for Durham in this period is a notable gap in the records here, but even those few accounts which do exist for other monasteries, and for Durham in earlier periods, vary in the extent to which they record fresh produce, and the impression given is that items bought at market were recorded but not items supplied by the monastic gardeners. For example, the account of the kitchener of Selby Abbey for 1416/7 includes 4s.9d. spent on 2 bushels, 3 pecks of mustard seed (almost certainly used as a spice rather than planted, since a payment is included for mending the mustard-grinding stones), 5s.4½d. spent on an unspecified quantity of cabbages and leeks, 1s.0d. for garlic, 3s.0d. for onions and 7s.6d. for 1 quarter, 1 bushel of green and white peas.⁹⁸ With the exception of the garlic, which was simply ‘purchased this year’, the suppliers of these goods are named in the accounts, making it clear that these were indeed market transactions. However, the Selby kitchener clearly did have the use of a garden as well, for in the same year he paid 6d. to a general labourer (by no means a specialist gardener, for he had previously been employed repairing the kitchen ranges) ‘for digging in the garden called *Herynghousgarth* for 3 days in order to plant and sow herbs there’.⁹⁹

At Westminster, the kitcheners’ daily records sometimes gave values to the produce of the monastic gardens and sometimes did not.¹⁰⁰ From the lists of ingredients used at each meal, however, fresh fruit and vegetables do not appear

⁹⁸ Tillotson, *Monastery and Society*, p.167-8.

⁹⁹ Tillotson, *Monastery and Society*, p.167.

to have been common items of the monastic, or even the abbatial, diet c.1500; Harvey has estimated that they accounted for only around 0.5% of the calorific intake of the Westminster monks in this period, and that the monks were almost certainly deficient in vitamin C as a result.¹⁰¹

Salt

Salt was bought by the bursar, and is recorded in his necessary expenses section. Large quantities were bought: in the six sample years from 1465/6 to 1515/6 the bursars' annual purchases averaged 67q.5b.1½p., the average cost of £13.3s.2d making this a major item of food expenditure. The bursar distinguished between three varieties of salt: salt, Bay salt (from the Bay of Biscay) and 'Court ladies salt' (perhaps a finer grind). However, there was little or no price differential between these varieties, so it seems unlikely that they were of noticeably different qualities.

It is probable that this salt was primarily bought for salting meat, and the fact that we know that the priory bought live cattle, slaughtered them itself and 'powdered' some of the carcasses confirms this. Whether or not any of the salt bought was used for cooking or for seasoning food in its own right is unknown, but the fact that it was bought only by the bursar rather than by the cellarer makes it seem unlikely. It is possible that small quantities of salt may have been included in the unspecified 'diverse spices' bought by the bursar, cellarer or communar.

¹⁰⁰ Harvey, *Living and Dying*, p.60.

¹⁰¹ Harvey, *Living and Dying*, pp.57, 60-1, 63.

Fats

These occur together in a miscellaneous category of the bursar/cellarer indenture, along with honey and sometimes onions. Two or three barrels of oil were bought each year, and a barrel probably contained 30 gallons.¹⁰² If so, the average amount bought was 76.5 gallons. This could have been olive or rape oil, since both were frequently used in the medieval period. More importantly, the accounts do not specify whether the oil purchased was for use in lights or was for culinary purposes; Rogers considered the former to be more common, and so it is possible, perhaps probable, that this oil was not in fact an item of diet at all.¹⁰³ Butter was also bought in each year, but the amount bought was rarely specified. However, in 1515 two purchases of butter were made, one of unspecified quantity but one of 32 stones at 12d. per stone. If this price is taken as standard then it is possible to estimate the amounts bought in the other years from the amount spent in each year, which is always given.¹⁰⁴ Using this technique, it would appear that an average of 36.3 stones of butter were bought by the cellarer in each year. Finally, an average of 18.9 stones of fat (presumably lard) were also accounted for in this section. It is likely that the last two items, butter and lard, were intended for consumption, giving an edible fats total of 55.2 stones. If the total of these two commodities is divided into the standard 40 monk-portions being used for the purposes of this analysis, this translates into an average annual consumption per monk of 1.38 stones (19lb5oz.), or just under 6oz. per week, a surprisingly modest quantity.

¹⁰² In 1504, the cellarer bought 2.5 barrels at £1.10s.0d, and 24 gallons at just over a penny each. If oil bought in bulk was slightly cheaper at 1d. per gallon, a barrel would contain 30 gallons. In 1515, three barrels 'of greater size' were bought at a higher than normal price.

¹⁰³ Rogers, *Agriculture and Prices*, Vol.IV, pp.366-7.

¹⁰⁴ Rogers noted the usual price of butter per stone to be around 1s.1½d in this period, so 1s.0d. is not unreasonable. Rogers, *Agriculture and Prices*, Vol.IV, p.360.

In addition to these fats purchased by the cellarer, there must also have been fats included in the meat slaughtered in the priory. Indeed, it is clear that the priory generated a surplus of these, as the bursars' annual accounts of income regularly show receipts from the sale of tallow and dripping from the kitchen, making £5.18s.3½d. in 1480/1. Presumably this was only an excess, and much more would have been used within the kitchens. Occasionally, however, glimpses of such internal uses do show up in the accounts, as in 1478/9 when the bursar's necessary expenses included £5.5s.3½d. for wax and fat-skimmings bought from the cellarer for candles.

Honey

Honey, again, occurs in the miscellaneous section of the bursar/cellarer indenture. The amount of honey bought in a year more than doubled between the beginning and end of this period, the change point coming abruptly c.1500. The indentures record the purchase of an average of 40.3 gallons per year in the first four decades, and then an average of 89.5 gallons per year in the last two decades looked at here. Overall, honey purchases averaged at 56.7 gallons per year over the whole of this period. It is interesting to note that the increase in sugar consumption at the priory did not take place at the expense of honey purchases, but that honey consumption increased alongside that of sugar. Unlike sugar, the price of honey did not decrease over this period. This suggests that the falling price of sugar alone is not sufficient to explain the priory's increased demand, but rather that changing tastes may have driven, or at least accelerated, the trend.

*Spices*¹⁰⁵

The term 'spices' denoted a wide variety of substances in medieval Europe, and can be usefully subdivided into several categories. The monks themselves accounted under this heading for sugar, but not, as has been seen, for honey or salt; onions, but not garlic or herbs (many of which, in any case, would have been home-grown rather than purchased); certain nuts, dried fruits, and the 'exotic' spices for which we nowadays tend to reserve the word - principally licorice, aniseed, ginger, cinnamon, nutmeg, cloves, mace, pepper and saffron. The range of spices that the monks purchased over this period appears to have been fairly constant, although it is unfortunately impossible to penetrate any changes that might be hidden behind the general headings of 'diverse spices' or '...and other spices' which occur so often in these accounts. The hostillar's account in fact only gives such an aggregate, but the communar's and bursars' accounts contain more detail. These specify that sugar (in the form of comfits and 'plate', but not any of the other forms common in this period such as loaves or powder) aniseed, licorice, ginger, nutmeg, cloves, mace, pepper, figs, raisins and onions were bought in most years. Nuts, saffron and 'torts' (some sort of cake or tart) were also bought in several years. The hostillar bought ginger, cinnamon and other unspecified spices in each year, and added 'zintar'¹⁰⁶ to this list after 1505-6.

Some more miscellaneous items are also included in the communar's accounts. These include a category described as 'electuary for the novices' each

¹⁰⁵ This section draws upon and corrects information given in Threlfall-Holmes, 'Provisioning', p.27-42.

¹⁰⁶ Zintar cannot be traced in the relevant published reference works. Mr. Weiner, Deputy Chief Editor of the Oxford English Dictionary, has suggested that it may possibly be an otherwise unrecorded deviant spelling of 'sanders', or sandalwood, which commonly occurs in lists of spice purchases alongside ginger and cinnamon, as zintar does in these accounts.

year: no further detail is given, and it seems likely that this was some sort of medicinal cordial deemed appropriate for the young. Other items appear much less frequently. 'Torts', or tarts, are occasionally mentioned - three were bought in 1502-3, and five in each of 1510-11, 1511-12 and 1517-18. An item 'made of comfit' was bought for 3s.8d. in 1511-12, presumably as a centrepiece for a banquet: such 'subtleties' were highly prized examples of the confectioners' or pastry-chefs' art, and edible crowns, lambs and eagles were commonly set upon the table between courses. These figures were made of meatpaste in the earlier middle ages, but were increasingly fashioned of sugar or pastry - or even non-edible materials such as cardboard - by this period.¹⁰⁷

The spices for which most information can be gleaned from these accounts are sugar, dried fruit and pepper. For each of these consumption may be estimated, although even here the vagueness of the hostillars' aggregate total, and the miscellaneous category in the other accounts, mean that exact calculations are not possible. However, the margin of error in the figures given here is unlikely to be large. For the other spices used by the priory, the table on page 7 provides a guideline to annual consumption. The priory accounts do not, of course, give any great detail of how or when these spices were used. In attempting to answer this question, other sources have been necessary, and those used here are primarily Andrew Boorde's 1542 *Dyetary*, together with certain recipe collections.¹⁰⁸ The information contained in each of these sources is broadly consistent, and so it seems probable that these texts reflect standard and generally accepted practises.

¹⁰⁷T. Scully, *The Art of Cookery in the Middle Ages* (Woodbridge, 1995), p.109.

¹⁰⁸Two particularly useful collections of medieval recipes are Hieatt and Butler, eds., *Curye on Inglysch*, and Thomas Austin, ed., *Two Fifteenth Century Cookery Books* (Early English Text Society, Original Ser., 91, 1888). The principles behind the medieval use of spices are discussed in detail in Scully, *Art of Cookery*.

Dried fruit accounted for by far the largest part of the priory's spice purchases each year, in terms of both quantity purchased and amount spent. In all, 14% of the priory's spice expenditure went on dried fruit, split between the cellarer, who spent an average of £2.6s.5½d. (which was 10% of his spice spend), and the communar, who spent an average of £1.3s.8½d.(around half his total outlay on spices). The dried fruits that were bought included figs, raisins, 'big raisins', currants and prunes, and are measured in a bewildering variety of ways: in pounds, dozens of pounds, frails, toppets, pecks and sorts.¹⁰⁹

The average amount of dried fruit bought by the priory was 538 lbs per year, but this was not spread evenly across this period. The communar bought an average of 120 lbs in the 1470s and 80s, which increased to over 300 lbs by the first decades of the sixteenth century. The cellarer bought an average of 255 lbs throughout the later fifteenth century, but by the second decade of the sixteenth century was purchasing much greater amounts – 692 lbs in 1515. Considerable volumes of dried fruit were entering the monastery, therefore, especially towards the end of this period. However, the implied consumption is not actually that large when divided into 40 monk-portions. The average 538 lbs gives just over four ounces per monk per week over the whole year, rising to around 7½ ounces at the end of this period. However, dried fruit was an essentially Lenten aspect of the monastic diet; in Westminster, it accounted for 2.5% of the calorific value of the monk's food in that season, and was absent from their diet for the rest of the year. Averaged only across Lent, the average quantity purchased would have

¹⁰⁹These measures have been standardised for the purposes of this study, using a combination of documentary references, secondary literature and the relative prices paid by the priory as a guide. These standardisations are as follows: a frail = 40lbs; a toppet = 20lbs; a peck = 80lbs and a sort = 120lbs Key secondary sources are *The Oxford English Dictionary*, Vol.6, p.138; Vol.11, p.140; J.F.Wade, *The Customs Accounts of Newcastle-upon-Tyne 1454-1500* (Surtees Society, 202, 1995), p.311; and Rogers, *Agriculture and Prices*, Vol. IV, pp. 668-9.

given each monk around 5½ ounces per day. This is significantly higher than the comparable allowance received by the monks of Westminster in this period, who even in Lent received only 4oz. of raisins each per week;¹¹⁰ but is not excessive by modern standards.

It is worth noting that the great increase in the amount of dried fruit bought by the priory over this period reflects a general trend throughout medieval Europe to include more dried fruit in cookery as time went on, as can be seen in a comparison of fourteenth and early fifteenth century recipes with those of the later fifteenth and sixteenth centuries.¹¹¹ Figs in particular are a ubiquitous ingredient in the fifteenth century recipes that have survived, being used in both sweet and meat dishes.¹¹²

As with dried fruit, the majority of the spices bought by the priory are familiar today and need no further explanation. However, the forms in which sugar was purchased were rather different in the medieval period. Powdered sugar, such as is most common now, was perhaps the rarest and certainly the most expensive form in which sugar could then be found. Most sugar was bought in loaves - solid blocks from which sugar was scraped or broken off as required for use; alternatively, as was the case in Durham, it could be bought in plate form – plates of brittle sugar, rather like the hard toffee that covers toffee-apples. The other main form in which sugar was bought as Durham was as comfits, or confectionary, a term which covered a wide range of flavoured sugars and

¹¹⁰Harvey, *Living and Dying*, pp.57, 64.

¹¹¹Hieatt and Butler, *Curye on Inglysch*, p.12.

¹¹²Austin, *Two Cookery Books*. Dried fruit appears in the vast majority of recipes listed here. Typical sweet recipes based on figs, raisins and dates include 'Fygeye' (p.24), and fruit-filled pies (pp.15, 112). Fruit was also included in meat and fish tarts (p.47), and several other savoury dishes.

sweetmeats, from sugared almonds and similar sugar-coated seeds and spices, to sugar that had been delicately flavoured with rose-water.¹¹³

The bursar, the cellarer and the communar all list sugar purchases in their accounts. The bursar purchased between 3lb and 8lb each year (averaging just over 5lb), and the communar between 3lb and 7½lb (averaging just over 6lb). The cellarer did not buy sugar on a regular basis until after 1478, and the amount that he purchased was much more varied, being between none and 64 lbs thereafter. His purchases averaged around 20lbs per year, although an average for these purchases is less meaningful than for those of the bursar and communar due to the much greater variation which existed from year to year. Nevertheless, the average sugar consumption of the monastery as a whole can be calculated to have been slightly more than 21 lb each year, or 8½ ounces per monk per year.

As with dried fruit, the priory's purchases of sugar show a marked increase over the period under consideration here, rising from around 6lb per year in the 1460s and 70s, to 60 or 70 lb by the first decades of the sixteenth century.¹¹⁴ By the 1520s and 30s, over 100 lbs of sugar were being bought each year, and the consumption of the average monk had thus risen to 2½ lbs per year, much higher than the average for the period but still relatively small by today's

¹¹³ A very wide variety of spices, nuts, seeds and flavourings were used in making comfits: the 1482 'Regimen Sanitatis' of Magninus Mediolanensis listed the best and most delicious comfits then in use as being candied, sugar- or honey-coated ginger; candied pine-nuts, pistachios and filberts; candied aniseed, coriander, fennel and juniper seeds; crude dragees; fine table dragees; rose-sugar; marzipan and walnuts candied in sugar or honey. Similarly, Platina described in the 1475 'De honesta voluptate' how 'by melting [sugar] we make almonds...pine-nuts, hazelnuts, coriander, anise, cinnamon and many other things into candies'. Scully, *The Art of Cookery*, pp.129-31, 57.

¹¹⁴ As with dried fruit, sugar consumption was rising throughout Europe in this period. Hieatt and Butler, *Curye on Inglysch*, pp.9-12.

¹¹⁵ C.H.H. Wake, 'The Changing Pattern of Europe's Pepper and Spice Imports, c.1400-1700', *Journal of European Economic History*, 8 (1979), p.368.

standards. It should be stressed that the more than doubling of sugar purchases by the monastery seems to have been a response to the halving of sugar prices, implying that the priory's demand for sugar was flexible, and that sugar, at least in the quantities purchased at the end of this period, was considered by the monks to be an agreeable luxury rather than a necessity.

After sugar, the most common spice in the medieval world was pepper. This was the staple commodity of the spice-dealers in the middle ages, accounting for over four-fifths of the cargoes brought to Europe from Alexandria by the Venetian galleys at the beginning of the fifteenth century,¹¹⁵ and sellers of spices and aromatics were generally known simply as pepperers.¹¹⁶ European imports of pepper increased by between 30 and 55% over the fifteenth century, due at least in part to the progressive impoverishment of the Moslem Levant, which kept prices low on the Eastern markets throughout the second half of the century;¹¹⁷ however, imports of other spices increased by much greater amounts over the same period.¹¹⁸ The greater absolute quantities involved may well have reflected a widening of the strata of society that consumed such spices.

Pepper prices and quantities purchased are only specified in the cellarer's accounts until after 1502-3, when the communar began to separate pepper out in his accounts. Both clearly bought pepper throughout this period however, as it is frequently mentioned by name in the communar's miscellaneous list of spices

¹¹⁶S.L. Thrupp, 'The Grocers of London', in E. Power and M.M. Postan, eds., *Studies in English Trade in the Fifteenth Century* (London, 1966), p.283; P. Nightingale, *A Medieval Mercantile Community* (London, 1995). K.L. Reyerson, in 'Commercial Fraud in the Middle Ages: the Case of the Dissembling Pepperer', *Journal of Medieval History*, 8 (1982), p.67, quotes the case of a pepperer found guilty of selling adulterated saffron, and banned in perpetuity from following the trade of pepperer and selling 'saffron, ginger, pepper, cloves, sugar or any subtle substance pertaining to the pepperer's trade'.

¹¹⁷E. Ashtor, *Levant Trade in the Later Middle Ages* (Princeton, 1983), pp.469-70.

¹¹⁸Wake, 'Changing Pattern', pp. 372, 393-4; ginger imports increased by 257%, cinnamon by 395%, and other spices by 561% in the fifteenth century. Imports of Moluccan spices - cloves,

purchased but without individual details being given. The cellarer bought between 6 and 16 dozen pounds in these years, but the latter figure was unusual and occurred right at the end of the period. Throughout the late fifteenth and the first decade of the sixteenth centuries, the cellarer bought between 72 and 108 lbs of pepper per year, averaging 92½. The cellarer thus provided the vast majority of the priory's pepper, the communal purchasing only between ½ and 1 lb per year after 1502/3 when his accounts begin to show a quantity. On average, then, the priory purchased around 93 lbs of pepper per year, and this amount remained steady throughout this period. The amount of pepper consumed by an average monk in a year was thus about the same as the maximum amount of sugar reached by the end of this period – around 2½ pounds per year, confirming the impression gained from the recipes of the period that pepper was very much a staple of the medieval kitchen, and was used in far greater quantities than now.

The total amount spent on spices by the priory in an average year was around £23. This can be compared with what we know of the spice purchases of other late medieval noble households. The monks of Westminster, for example, spent around £14 on spices each year, excluding the costs of spices for the prior's table for which they accounted separately.¹¹⁹ This is only around 60% of the total spent on spices by the monks and prior of Durham Cathedral Priory, although the addition of the prior's spices to the Westminster total might make 75% more accurate. The population of Westminster was if anything rather larger than that of Durham, averaging 50 as opposed to 40 resident monks, and the amounts that

nutmeg and mace - increased by 292% in the fifteenth century and by a further 500% between 1500 and 1620.

¹¹⁹Harvey, *Living and Dying*, pp.37, 57.

¹²⁰Dyer, *Standards of Living*, p.56.

¹²¹T.Percy, ed., *The Regulations and Establishment of the Household of Henry Algernon Percy*

the two monasteries spent on wine were roughly commensurate, making this a striking difference.

Some comparisons can also be made with large secular households. The household of Sir Humphrey Stafford, Duke of Buckingham, spent £4.12s.0d. on spices in 1452/3, less than a fifth of the priory's average. Evidence such as this lends itself less easily to comparison with the Durham figures, but it may be observed that Stafford's wine purchases, at £13.18s.0d, were somewhat less than a third of the amount spent by the priory each year.¹²⁰ The household thus used disproportionately fewer spices than wine than was the case at Durham. However, the Earl of Northumberland's household book reveals a similar spend on wine to Durham priory - £49 per year – and a rather higher spend on spices, at £25.19s.7d. not including the cost of raisins and figs which were also bought.¹²¹

*Wine*¹²²

The vast majority of the wine purchased by the priory was ordinary red wine purchased by the tun. Some white wine and claret were also purchased in several years. It should be noted that the 'claret' referred to in these accounts was not the superior red wine that the term denotes today; rather, it was a spiced wine preparation, similar to mulled wine but not necessarily drunk warm. Several recipes for the making of this 'claret' have survived from the medieval period. The ingredients used varied considerably, although the main elements were

the Fifth Earl of Northumberland at his Castles of Wressle and Leckonfield in Yorkshire, begun A.D. 1512 (London, 2nd edn. 1905), pp.6, 19-20.

¹²² This section draws upon information given in Threlfall-Holmes, 'Provisioning', pp.16-18, 22-26.

always a sweetener, (usually honey), and spices - a simple preparation might use only cinnamon, galingale, grains of paradise and honey, infused in white or red wine. More complex recipes that are available contain much longer lists of ingredients; perhaps the most impressive includes cinnamon, ginger, pepper, long pepper, grains of paradise, cloves, galingale, caraway, mace, nutmeg, coriander, honey and brandy (which was itself probably a distillate of a spiced wine).¹²³

These red, white and claret wines were the staple wines of the priory, and tended to share a common price and (presumably) a common quality. There was a tendency for these three varieties to be classed together in the accounts, suggesting that the accountant, at least, saw little to choose between them. In particular, there are frequent entries in the accounts which give a standard price for all three; for example, in 1499-1500 the bursar bought 'Five tuns and one hogshead of red wine, a pipe of claret and a hogshead of white wine at 100s [per tun]'. Sometimes even the respective quantities were unspecified, as in 1504-5 when the bursar's purchases included 'two tuns of red, claret and white wine...at 106s.8d [per tun]'. Entries such as these, together with the large quantities purchased, strongly suggest that the monks of Durham viewed most wine as a commodity rather than a luxury, to be purchased in bulk, and to be discriminated between largely by price rather than by considerations of taste.

The exceptions were the particular types of wine purchased less frequently or in smaller amounts; most prominently the sweet wines that were increasingly fashionable in the latter half of the fifteenth century.¹²⁴ These were sometimes referred to generically as 'sweet wine' in these accounts, and sometimes described as being specific varieties, of which malmsey is most

¹²³ Scully, *Art of Cookery*, pp.149-51.

¹²⁴ Dyer, *Standards of Living*, pp.62, 105.

frequently mentioned . Other varieties are each mentioned only occasionally - bastard in 1464-5; romney and muscatel in 1503-4; and romney again in 1514-5. 'Sweet wine' is occasionally mentioned in small quantities in the 1460s to 1480s, but a trend towards buying this type of wine on a regular basis can be seen towards the end of the century, with a butt of malmsey being a regular annual purchase by the 1490s. For the most part, these varieties were significantly more expensive than the monks' usual wines. 'Sweet wine' or malmsey was consistently around twice the price of normal wine, as was the bastard bought in 1464-5, these purchases costing roughly the same per butt as the monks paid for a tun of their more usual fare. Romney was the exception, being only slightly more expensive than claret at £5.6s.8d. per tun compared to £5.0.0. Unfortunately, the cost of muscatel cannot be calculated since the quantity purchased is unknown.

These sweet wines were almost certainly significantly stronger - that is, more alcoholic - than the staple wines of the priory. They were known as 'high' or 'hot' wines, as contrasted with the 'mean', or lighter, French, Gascon or Rhine wines.¹²⁵ Actual alcohol contents are unknown and virtually impossible to calculate, since variations in viticulture and fermentation techniques are critical in the formation of alcohol and such details are not known for this period. However, it is known that three qualities of wine were produced by most vineyards, using the juice from the first, second and (diluted with water) third pressings of the grapes respectively. The last, third pressing wine was the common drink of the peasantry in wine-producing regions, and has been

¹²⁵A.Boorde, *Dyetary* (1542), ed. F.J.Furnivall (Early English Text Society, Extra Ser., 10, 1870), pp.254-5.

estimated to have contained perhaps 5% alcohol by volume.¹²⁶ It is certain that the monks of Durham, in common with other wealthy and middling households, would have drunk the first pressing wine, which would have been much stronger. A rough estimate for the alcohol content of the usual wines might be made on the basis of the weakest wines common today, containing around 8% alcohol by volume, but this can only be speculative.

On average, the bursar purchased 7.7 tuns of wine per year in the years between 1464 and 1520 for which accounts remain. This was made up of about 0.4 tuns of sweet wine and 7.3 tuns of normal wine, with sweet wines becoming more common towards the end of this period, as has been seen. In addition, each year the sacrist purchased a pipe of wine for use in the communions celebrated in the cathedral, and the hostillar bought around a tun, most of which would have been drunk by the frequent guests that the priory was under an obligation to entertain. Although this latter quantity does not seem large, it is likely that only the more exalted guests of the priory were regaled with wine during their stay. In the late thirteenth century, the keeper of the guest house at Beaulieu Abbey was instructed to give wine to dignitaries such as abbots and priors, and to some parsons and knights 'but not all';¹²⁷ the lower levels of the gentry had to be content with ale. Given the Benedictine monasteries' constant worry about the cost of hospitality, it is probable that this distinction was maintained. It seems likely that the wine purchased by the bursar and by the hostillar was consumed by the monks and guests respectively.

If communion wine and guest wine are disregarded, to give the wine drunk by the monks as a part of their communal diet, then the priory consumed

¹²⁶Scully, *Art of Cookery*, pp.141-2.

an average of 15,523 pints of wine each year. Calculating the consumption of an individual monk is far from being an exact science, since it is impossible for us to know how many other people, (such as corrodians, seculars or guests), shared in this amount, or how it was distributed between the monks themselves.

However, a rough estimate might be made on the assumption that absenteeism and additional shares might have effectively cancelled each other out, it being highly unlikely that many seculars or corrodians would have had the right to a share of the monks' wine; and that the wine was shared equally between the monks. The average number of monks residing at the priory at any one time was 40,¹²⁸ which leads to the tentative conclusion that the average daily allowance of a monk was 1.1 pints (0.6 litres) of wine.

However, it should be noted that this allowance would have been spread very unevenly across the year. In the fast seasons of Advent and Lent wine is extremely unlikely to have been drunk, and the same probably applied to Wednesdays and Fridays throughout the year. In her study of Westminster monks in this period Barbara Harvey concluded that wine would only have been drunk on 100 days of the year, comprising various saints days, anniversaries and other celebrations.¹²⁹ This would mean an average consumption per monk of 3.9 pints (2.2 litres) on these days - the equivalent of nearly three modern 75cl bottles. If this is spread over a larger part of the year, the 193 days that are left after the removal of the fast days noted above, then the allowance would have averaged just over two pints on those days.

¹²⁷S.F.Hockey, ed., *The Account Book of Beaulieu Abbey* (Camden Society, 4th Series, 16, 1975), p.273.

¹²⁸Dobson, *Durham Cathedral Priory*, p.54.

¹²⁹Harvey, *Living and Dying*, pp.44, 58.

These levels of wine consumption are much higher than those suggested by St. Benedict as reasonable provision. St. Benedict certainly allowed for this amount to be varied at the discretion of the prior, but almost certainly envisaged such variations as decreasing, not increasing, the allowance; the rule explains that the half-pint or so that is suggested is deemed 'sufficient' having taken the 'infirmities of the sick' into account; and goes on to discuss how 'We read that monks should not drink wine at all, but since the monks of our day cannot be convinced of this, let us at least agree to drink moderately, and not to the point of excess...[and]...where local circumstances dictate an amount much less than what is stipulated above, or even none at all, those who live there should bless God and not grumble.'¹³⁰ It should also be noted that in addition to this wine, each monk received a daily allowance of around a gallon of ale. The volume of alcohol that they must have consumed is thus startling to modern dieticians, and can hardly be said to have met St. Benedict's guideline of moderation.

It is interesting in this context to note that the report compiled by the bishop of Durham following his 1442 official visitation of the priory contained several criticisms of illicit drinking, although it concluded that the monks were 'men of worthy lives, chaste and sober, suffering neither the shame nor the chains of fleshy faults' - a judgement that cannot be totally dismissed as partial, since it was not unknown for such reports to contain strong condemnations of the visited house. Certain sections of the report make it clear that drinking to excess was recognised as undesirable; but equally, the priory's replies do not suggest that any great seriousness was attached to such criticisms. Article 20 of the report concerns the chamberlain, whom over twenty of the monks had accused of not

¹³⁰T.Fry, ed., *The Rule of St. Benedict* (Minnesota, 1981), pp.238-41. The exact quantity of wine recommended as a daily allowance was a 'hemina', which contained 0.273 litres (c. half a pint).

carrying out his duties satisfactorily; 'and when accusations are laid before the lord prior on this matter, the latter does not take steps to correct it, but says to the monks that this man is a drunkard, and so nothing is done'. Articles 45 and 46 both concern illicit drinking-sessions, involving both the monks themselves and also laymen entering the dormitory to join them. The priory's reply is that such sessions are not known of and shall be prohibited; neither statement being entirely convincing.¹³¹

Whilst the differing size and composition of different households complicates the task of making relevant comparisons, it is clearly desirable to obtain some idea of how the wine consumption of the Durham monks compared with that of other similarly wealthy men. Barbara Harvey's analysis of the calorific make-up of the diet consumed by the monks of Westminster in this period revealed that, on average, they received an allowance of just over a quarter of a pint of wine each day.¹³² The average Durham allowance of just over a pint was thus a great deal higher. At Battle Abbey few accounts remain, but in 1412-13 the daily allowance per monk can be estimated to have been 1.4 pints,¹³³ higher than the figures seen here for Durham, although this is calculated from a single account and may be abnormally high. Dyer estimated that at both Battle Abbey, and the household of the Countess of Warwick (for which the 1420-1

¹³¹Bishop Robert Neville's Visitation Report (9 July, 1442), published as the appendix to R.B.Dobson, 'Mynistres of Saynt Cuthbert', Durham Cathedral Lecture 1972 (Durham, 1974); reprinted as Cap.3 in R.B.Dobson, *Church and Society in the Medieval North of England* (London, 1996).

¹³²Harvey, *Living and Dying*, p.64.

¹³³Searle and Ross, *Battle Abbey*. In 1412-13 seven tuns of wine were bought (p.105). It is unclear exactly how many monks were then in residence, but in 1394 there were 27, and 25-30 was the standard range. If there were 27, this would give 1.4 pints per monk per day assuming no other sharers in the wine; if 30, this would become 1.1 pints, matching the Durham figures.

accounts remain), 'the superior members of the household' probably received an allowance of about two-thirds of a pint of wine each per day.¹³⁴

It should be noted here that wine was almost certainly drunk much more commonly, and in greater quantities, in the first than in the second half of the fifteenth century. Decreasing imports after the English loss of Bordeaux indicate that this was the case throughout the country,¹³⁵ and Dyer has suggested that the practical effect of this decreasing consumption was spread across all wine-drinking ranks, with rich households cutting back daily allowances and lesser households no longer drinking wine on a regular basis.¹³⁶ This picture is confirmed by a comparison of the wine purchases of Durham Cathedral Priory in the first and second halves of the century. The average yearly wine purchase of the Durham bursar was 15.1 tuns in the period from 1415-16 to 1439-40,¹³⁷ which was twice that recorded for 1464-5 to 1519-20. The average number of monks inhabiting the priory remained stable throughout the fifteenth century, so that, high though the levels of the latter part of the century may seem, they represented a halving of the amount that was being drunk by the Durham monks half a century previously.

The large, though differing, quantities of wine that all these households consumed may be partially explained when it is realised quite how beneficial to

¹³⁴Christopher Dyer, 'English Diet in the Later Middle Ages', in T.H.Aston et al., eds., *Social Relations and Ideas* (Cambridge, 1983), p.194.

¹³⁵M.K.James, *Studies in the Medieval Wine Trade*, ed. E.M.Veale (Oxford, 1971), pp.58-9. The more usual drink in England was ale: in 1497, an Italian visitor to England noted that 'the majority, not to say everyone, drink [ale]'. Another Italian, in c.1500, commented that the English were 'very sparing of wine when they drink it at their own expense...not considering it any inconvenience for three or four persons to drink out of the same cup...The deficiency of wine, however, is amply supplied by the abundance of ale and beer'. C.H.Williams, ed., *English Historical Documents, Vol V, 1485-1558* (London, 1967), pp.190, 195.

¹³⁶Dyer, *Standards of Living*, p.105.

¹³⁷Calculated from the table in N.Morimoto, 'The Demand and Purchases of Wine of Durham Cathedral Priory in the First Half of the Fifteenth Century', *Nagoya Gakuin University Review*, 20 (1983), p.101.

health wine was perceived to be. Andrew Boorde's *Dyetary*, a manual on the healthful qualities and dangers of all sorts of food, with diet suggestions for various complaints, which was first published in 1542 and widely read, devotes a long paragraph to a panegyric on the benefits of drinking good wine - albeit in moderation. Wine was alleged to 'quicken a man's wits...comfort the heart...scour the liver [perhaps more true than they knew]...rejoice all the powers of man, and nourish them...engender good blood...comfort and nourish the brain and all the body, and resolve phlegm...it is medicinable, especially white wine, for it...cleanses wounds and sores'. 'Furthermore', Boorde adds, 'the better the wine is, the better humours it engenders'.¹³⁸

In addition, it has been asserted that different levels of wine drinking helped to define the internal hierarchies of the medieval aristocracy.¹³⁹ In particular, the laying in of casks of wine was a mark of the richest households.¹⁴⁰ Buying a tun, pipe or hogshead of wine, rather than purchasing it by the gallon as required, entailed a considerable capital investment. It also meant that that volume of wine had to be drunk in the next few months or be wasted - at best, wine began to deteriorate after six or seven months, due to the hardly sterile processing conditions of the middle ages, although the stronger, sweeter wines kept for longer due to their higher alcohol content.¹⁴¹ François Villon, criticising the opulent lifestyles of French monks in the middle of the fifteenth century, noted in particular the detail that 'they have good wines, often

¹³⁸Boorde, *Dyetary*, p.254.

¹³⁹Dyer, *Standards of Living*, p.62.

¹⁴⁰An Italian reporting on England in c.1500 specifically noted that 'few people keep wine in their own houses, but buy it, for the most part, at a tavern'. Williams, *English Historical Documents*, p.195.

¹⁴¹James, *Wine Trade*, p.165. Boorde, *Dyetary*, p.254, commented that 'high wines, such as Malmsey, may be kept long'.

drawn from the wood [*embrochez*]¹⁴² By buying and drinking wine in these quantities, the monks of Durham were clearly showing that they considered themselves to be near the top of the social ladder.

Conclusion

This chapter has of necessity been concerned with the overall averages which show the shape of the diet of Durham Cathedral Priory. The diet of two different individuals within the priory may have been very different: a monk's portion would have been much larger and more varied than that of a servant or corrodian of the priory, and the prior's table would no doubt have included a much wider variety of luxury foodstuffs – sweet wines, spices, game and fresh-water fish – than that served at the general common meals of the priory. Moreover, the monastic calendar meant that the type or quantity of food served was rarely the same two days running, for meals were organised around fast days and feast days, and fast and feast seasons. The more expensive foodstuffs such as cygnets, pike and other fresh fish and game were often noted in the accounts to have been bought specifically for certain feast days, such as Christmas or St.Cuthbert's day.

As well as the church calendar, the priory's diet was also influenced by the seasons. Such variations are impossible to glean from the annual enrolled accounts of the priory, and it is unfortunate that the cellarer's weekly accounts do not exist for this period. However the most recent of these weekly accounts to survive, those for 1449/50, have fortunately survived for the entire year enabling seasonal patterns to be distinguished. As can be seen from the graph (fig. 16), the

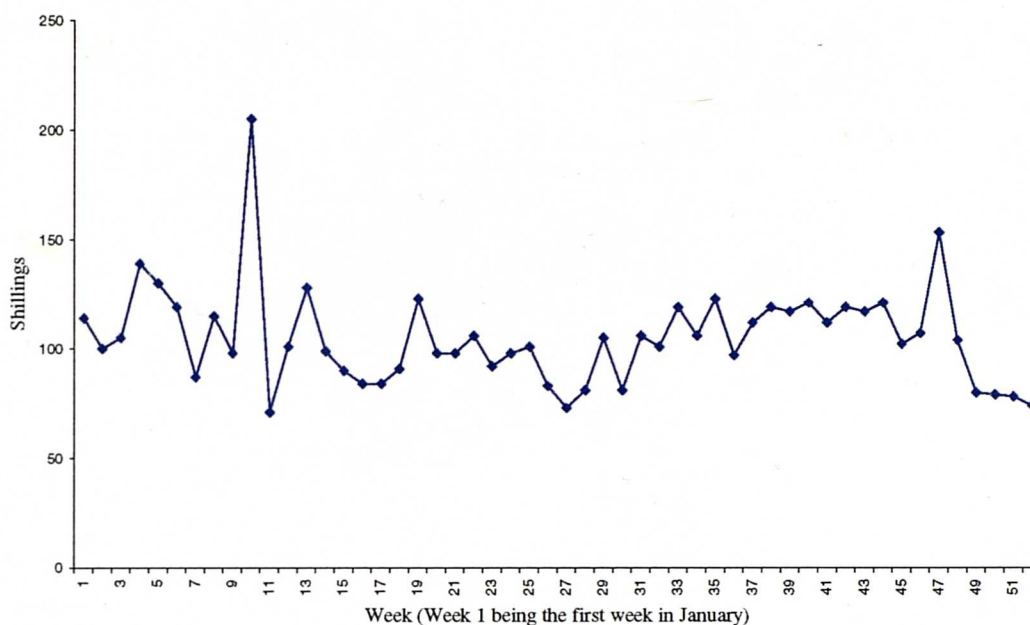
¹⁴²Francois Villon, stanza 32 of 'Le Testament' (c.1461); translated in J.Fox, ed., *Villon: Poems* (London, 1984), p.39.



cellarer's spending on food for the monastery fluctuated considerably from week to week around the average of £5.5s.4d..

Fig. 16: The cellarer's weekly food expenditure, 1449/50,

shown as a single calendar year to allow seasonal variations to be observed



No particular pattern is discernable in these fluctuations for most of the year, but it is notable that spending dipped considerably in Advent, to an average of £4.7s.0d. per week. By contrast, spending in the second week of Lent stands out as almost double the average, although the following week much less was spent. Overall, the cellarers' spending on food for the monastery in the Lenten weeks of 1449/50 averaged at £5.18s.0d..

However, it must be noted that spending alone is an unreliable guide to diet due to the widely varying costs of different types of food. The types of food purchased by the cellarer in Advent were not noticeably different from those

purchased throughout the year. However, fish was a relatively expensive item of diet, and it was certainly the case that during Lent the monks diet was dominated by fish, to the exclusion of other meat. In the first week of Lent in 1450, the kitchen took delivery of 2500 herrings, 39 dogdraves, 19 salmon, 19 stockfish, five bushels of mussels and two of cockles, three seams (horse-loads) of unspecified fish, 6½ fresh salmon (the others were probably salted), and 7d.-worth of whiting. The only other food-stuffs bought that week were 5d.-worth of onions and 2lb of almonds.¹⁴³ The following week, in which over £10 was spent, saw a considerable store of fish being laid in: 3391 herrings, 64 dogdraves, 31 salted salmon, 32 stockfish, £1.4s.4d.-worth of whiting and 120 lampreys.¹⁴⁴ By contrast, the diet of a month beforehand had balanced fish with other meats; in a typical week in January, the cellarer's fish purchases comprised 560 herring, 3 salmon, 4 dogdraves, 34 'beadnell fish', 2b.2p. of mussels, 2 seams of unspecified fish and 3s.2d.-worth of whiting. In addition, he had bought 4 cattle, 11 sheep (and an additional 3d.-worth of mutton, presumably ready- butchered), 2 pigs, 5 calves, 42 hens, 1 capon, 16 piglets, butter and 420 eggs.¹⁴⁵

In addition to these variations due to the church's cycle of fast and feast, some purely seasonal variations in the monastic diet can also be seen from these accounts. In spring, lambs and poultry feature more strongly, whilst at the height of summer very few fish were eaten, probably because the heat meant that they spoiled too quickly. For example, in one week towards the end of August the cellarer's total fish purchases comprised only 8 dogdraves, 12 salmon, 3 seams of unspecified fish and 1s.5d.-worth of whiting.¹⁴⁶ Shellfish were bought only

¹⁴³ DCM Cellarer's a/c, 1449/50, Month 11 (week commencing 8th March 1450).

¹⁴⁴ DCM Cellarer's a/c, 1449/50, Month 11 (week commencing 15th March 1450).

¹⁴⁵ DCM Cellarer's a/c, 1449/50, Month 9 (week commencing 10th January 1450).

¹⁴⁶ DCM Cellarer's a/c, 1449/50, Month 4 (week commencing 23rd August 1449).

between December and March, whilst game-birds only occur in these accounts in the autumn and early winter, between September and December.

To summarise the diet of the priory, however, and to make comparisons with the situation elsewhere, it is necessary to return from this level of detail to the annual averages looked at throughout this chapter. Compared with the findings from Barbara Harvey's study of Westminster, it has been seen that the monks of Durham ate roughly the same amounts of bread and drank roughly the same amounts of ale, but consumed much more meat (and within this, much more beef and less mutton) than the Westminster monks, probably due to the pastoral bias of farming in the North of England. This higher level of meat consumption was not compensated for by a lower consumption of fish, since the Durham monks also ate at least as much fish (including vastly more herring and other fatty fish and much less cod and whiting) as their brothers in the South. However, they do appear to have eaten much less dairy produce – eggs, milk and cheese – although it is possible that this reflects a gap in the evidence rather than in their diet. The proportion of fresh produce at both houses is hard to establish, but appears to have been low. Luxury products, spices and wine, were consumed in large quantities at both Durham and Westminster, although in both cases Durham appears to have indulged itself rather more than Westminster. Comparison here is problematic, however, since the abbot's household at Westminster was separate. In addition, Durham may have had a much larger burden of entertaining than Westminster, due to its location as the only major monastery in the region and on the main north-south road for travellers.

Overall, the diet which these accounts reveal is one of plenty and variety, though with too much meat and too little fresh fruit and vegetable to be

considered healthy today. Both dietary staples and luxury goods were apparently bought and consumed freely, although the level of the latter does not appear to have been disproportionately high when compared to levels of consumption at other great households of the same period. However, this analysis does not shed any light on the reasons behind the monks' choices of diet elements; whether price, availability, fashion, personal preference or social considerations were uppermost in their minds when foodstuffs were bought, prepared and served. The following chapter addresses these questions, and compares the factors influencing the monks' choices of both staple and luxury foodstuffs with each other and with their choices of cloth, another socially visible commodity with connotations beyond the satisfaction of basic needs.

Chapter Three

Factors Influencing the Priory's Purchasing Decisions

Introduction

The obedientiaries who were responsible for provisioning the priory had first to decide what commodities to purchase and how much of each was required. This chapter focuses on how these decisions were made, by looking at the various factors which might have influenced or limited the obedientiaries' choices. Certain basic needs such as clothing and sustenance clearly had to be met, but within these categories considerations of tradition, cost, social status, availability and preference shaped the specific ways in which these needs were satisfied, and the extent to which basic need became irrelevant as a factor in consumer choice.

By looking at what the obedientiaries' actually bought for the priory, it is possible to deduce some of the reasoning behind their choices. This chapter takes the form of three case studies which illustrate the varying extent to which different factors influenced choices in staple, non-staple and socially significant commodities. The first case study looks at the bursars' grain purchasing over this period. Grain provided the priory with the principal raw ingredient for bread and ale, the staple items of late medieval diet for all members of society. It was a necessity with a relatively inelastic demand yet was subject to unreliable supply fluctuations as harvest quality depended on annual weather conditions. Secondly, the wine and spices purchased by the priory are analysed. With luxury imported items such as these, the effects of fashion and availability on the priory's purchasing are particularly clear. Demand for these commodities was technically

elastic, but the priory's response to price changes varies between individual varieties. The third case study concerns the cloth and clothing bought by the priory. Whilst some degree of clothing was clearly a necessity, much of that purchased by the priory was imbued with social significance, being designed to illustrate in a tangible way the strict social hierarchy on which the monastery, and indeed the society in which it was situated, was predicated. For some cloths this was the overriding factor in the obedientaries' purchasing decisions, whilst for other, more utilitarian textiles, the situation was more straightforwardly based on need and market conditions.

(i) Prices: Grain

Mode Price: A note on terminology

Any discussion of the priory's grain purchasing which refers to the prices paid must first note that every year saw a mode price, that is a seemingly standard price for each grain type in each year at which the majority of that grain type was bought by the bursar in that year. This price was not a frozen or customary price since it could change quite dramatically from year to year, indicating that it was in some way a reflection of the prevailing market conditions. Nor was it a price set in stone by the priory for each year, as in many years there are some examples of transactions taking place at other prices, and in some years the mode price is much less prevalent than in others. Nevertheless, the existence of such a price would appear to imply that a fixed price was set for each year – perhaps by reference to some external event such as ‘the price in Durham market on Michaelmas Day’ – and was then generally accepted as the norm by the priory and its suppliers alike, except when fluctuations in supply and

demand were sufficient to cause its abandonment and the re-establishment of the market price in the priory's dealings.

No reference survives in the accounts to where, when or how the seemingly normative mode price was set. However, two sets of grain prices are given for 1424/5 in the prior's Marescalia rolls, which primarily record breaches of weights and measures legislation. Only five fifteenth century examples of these rolls remain, and the other four lack equivalent information; however all four are missing either their beginnings or ends or both, so may have originally contained this information. The first example appears at the beginning of the roll recording the proceedings of the prior's Marescalia court held at Staindrop on Monday, 22nd January 1424, immediately prior to the list of indictments and judgements, and reads 'Wheat 8s.8d. per quarter. Barley 5s. Oats 2s.4d.'. The second comes at the end of the short roll for the court held at Elvet on the Feast of the Conversion of St. Paul (Thursday 25th January) 1424, and states 'Wheat price per quarter 9s.6d., Barley 5s.6d., Oats 2s.2d.'. These prices were presumably the prices at the respective markets on the respective dates, and are in all cases rather higher than the average prices paid for these commodities by the bursar in that year, which were 6s.8d. for wheat, 4s.5½d. for barley and 1s.8d. for oats.¹⁴⁷ The question of how the mode price quoted in most of the bursars' accounts was arrived at must therefore remain obscure.

Transactions made at prices other than the annual mode price were the exception rather than the rule in at least the first half of this period. For 36 of the 48 years for which the bursars' expenditure has survived, wheat was bought by the bursar at only a single price. In five years there was a single exception, and in

¹⁴⁷ DCM Bursars' accounts, 1423/4.

seven years there were several exceptions; such variations were largely confined to the 1460s and to the period from 1505-1520.¹⁴⁸ A broadly similar pattern can be seen in the barley prices, with 31 years having only a single price, seven years having a single example of a deviant price and greater variation occurring in eleven years.¹⁴⁹ In this case, however, the temporal divisions are rather less clear cut, although only one example of a non-mode price being used falls within the central period from the mid-1470s to the mid-1490s. The prices of oats and of peas and beans were even less prone to variation: the same price was paid by the bursar for all the oats that he bought in 39 years, one transaction involved a variant price in each of ten years and there is only a single example of more variation than this, whilst the price of peas and beans only displayed any variation at all in four years.¹⁵⁰ Many of these exceptional prices occurred in what were clearly market rather than 'feudal' transactions (see following chapter for more on this), and it seems likely, therefore, that the mode price was a price set by the priory for the calculation of rent payments in kind. In what follows, any reference to annual prices refers to the mode prices unless variant prices are specified.

¹⁴⁸ For wheat, the mode price was the only price in 1462/3, 1465/6, 1467/8, 1470-5, 1478-82, 1484-8, 1492-1501, 1503/4, 1506/7 and 1508-11. Years in which there was a single exceptional price were 1468/9, 1504/5, 1506/7 and 1512-3, although it should be noted that the accounts for the last two years contained only a few entries, and the deviant entries were for large quantities of grain, 132 quarters, 5 bushels, 1 peck and 126 quarters, 3 bushels, 3 pecks respectively. There were several entries at prices other than the mode price in 1464/5, 1469/70, 1476/7, 1504/5, 1514-5 and 1520/1. These figures exclude the small amounts of rye which were included in the wheat section of the bursars' accounts but which usually had a different mode price.

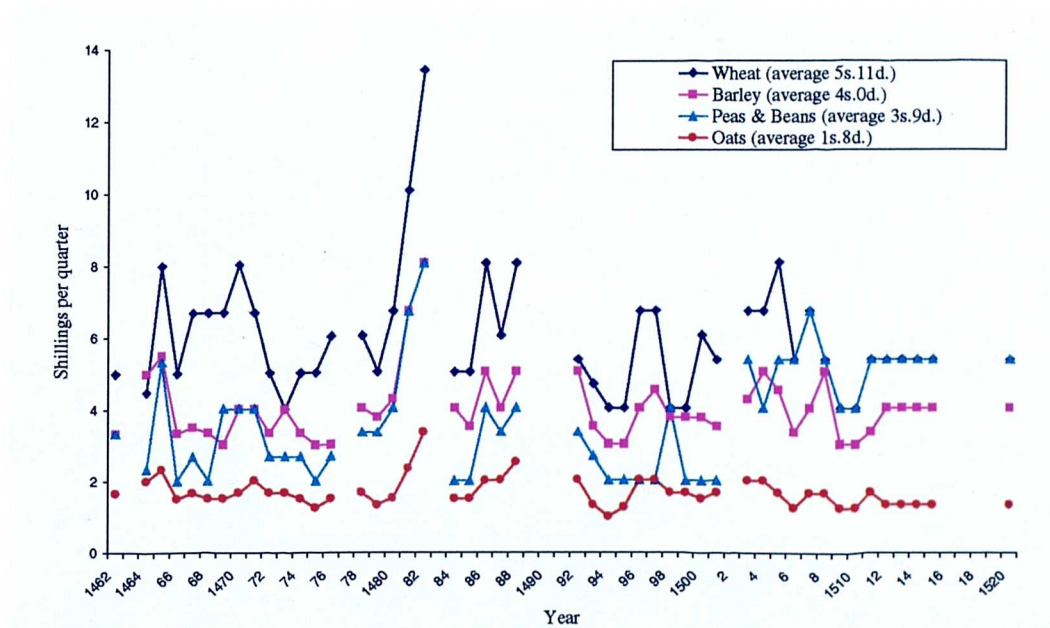
¹⁴⁹ For barley, the mode price was the only price in 1462/3, 1464-5, 1470-2, 1474/5, 1476/7, 1478-80, 1484-8, 1492-6, 1500-1, 1503-4, 1505-6, 1508-10, 1515 and 1520. A single deviance occurred in 1466/7, 1473/4, 1482/3, 1487/8, 1504/5 and 1514/5, and several deviances can be found in the accounts for 1467-9, 1475/6, 1497-9, 1507/8 and 1511-13.

¹⁵⁰ The price of oats varied from the mode more than once in 1465/6, and once only in 1472-3, 1482/3, 1498/9, 1505/6, 1512/3, 1515/6 and 1520/1. The price of peas and beans varied once in 1464/5, 1504/5 and 1507/8. In 1520/1 there was more than one entry at the deviant price (6s.8d.) and only a single entry at the mode price (5s.4d.), but twelve quarters was bought at the latter and only six and a half at the former price.

Price movements

As the following graph (fig. 17) shows, the mode prices of the different types of grain bought by the bursar fluctuated widely from year to year. In addition, they also moved relative to one another, so that whilst in general wheat was the most expensive, followed by barley, peas and beans and finally oats, this pattern did not hold in every year. For example, in 1480-2 the prices of barley and of peas and beans were the same, as were the prices of wheat and peas and beans after 1506/7.

Fig. 17: Mode prices of each grain variety, 1460-1520

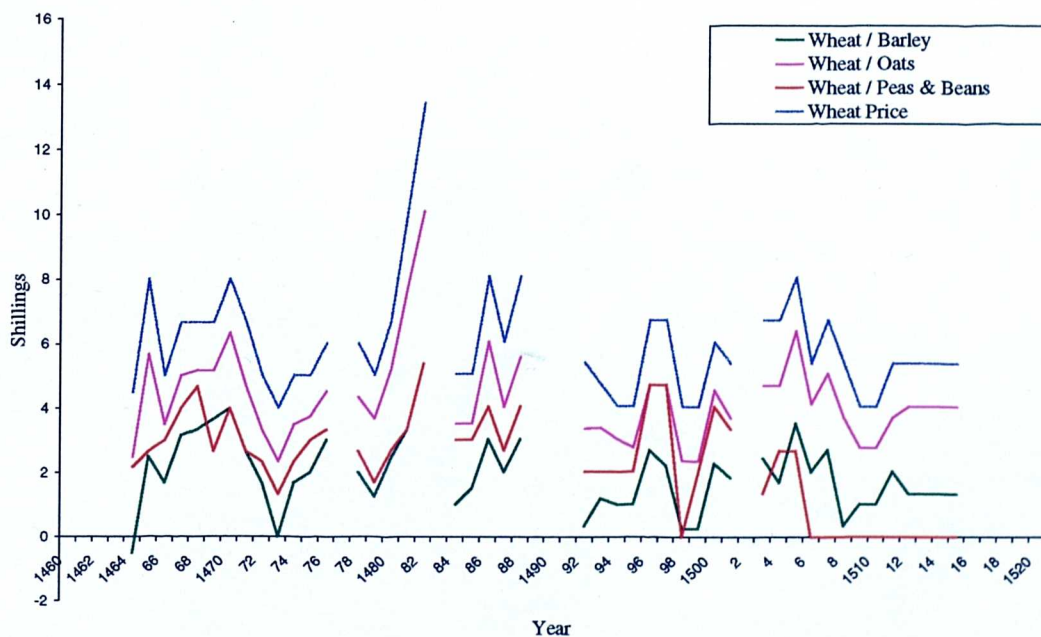


Such movements in the relative prices suggest that the different crops were affected to different extents by adverse weather conditions. In general, however, the prices of the different grains moved more or less together, such that

it is possible to see a general pattern of ‘good’ and ‘bad’ years in this data.¹⁵¹ In particular, there is a clear synchronicity of movement of the prices of all four varieties in the periods 1464-6, 1478-88 and 1492-5.

The way in which the prices of the different grain prices moved relatively to one another is revealing. As the following graph (fig. 18) clearly demonstrates, the price of wheat was the decisive factor in these relative movements. The *differences* between the price of wheat and the prices of barley, oats and peas and beans are graphed alongside the actual price of wheat, and it can be seen that exactly the same curve is described by each line (with some slight exceptions in the case of peas and beans).

Fig.18: Differentials between the price of wheat and the prices of other grains, 1460-1520



¹⁵¹ See also chapter five, pp.232-41.

The implication of this is that wheat prices rose and fell proportionally to but much more violently than the prices of the other commodities looked at here. This may be seen through an example of what would happen in the graph if the prices of the different grains moved in various hypothetical relationships. The average price of wheat in this period was 5s.11d., and the average price of barley 4s.0d.. If the prices of wheat and barley rose and fell with complete synchronicity, i.e. maintaining a 1s.11d. difference so that when wheat rose to 7s. per quarter barley cost 5s.1d. per quarter, then the 'wheat-barley' line on the graph below would be flat, showing a constant value of 1s.11d.. If wheat and barley prices rose and fell proportionally, so that when wheat prices rose to 9s.0d. barley would also rise by 52% , i.e. to 6s.1d., then the graph would look similar but subtly different to that seen in fig.18. That is, the wheat price and wheat-barley differential lines would rise and fall together, but the fluctuations in the differential line would be less pronounced, reflecting the fact that percentage changes translate into smaller movements when smaller absolute values are in question. If the price of barley remained constant, but the price of wheat fluctuated, then the difference in price would move in accordance with that of wheat, and it is this last pattern which can be seen here. However, since the price of barley did not in fact remain constant this pattern must be interpreted as the price of wheat moving proportionally more than that of barley (and indeed oats and peas and beans). That is to say, wheat prices fluctuated in the same direction as the prices of the other commodities, but more so. The most likely explanation for this phenomenon is that as wheat was considered by far the most desirable grain demand for it was less elastic than for others, so that similar shortages in supply across all crops affected wheat prices to a greater extent.

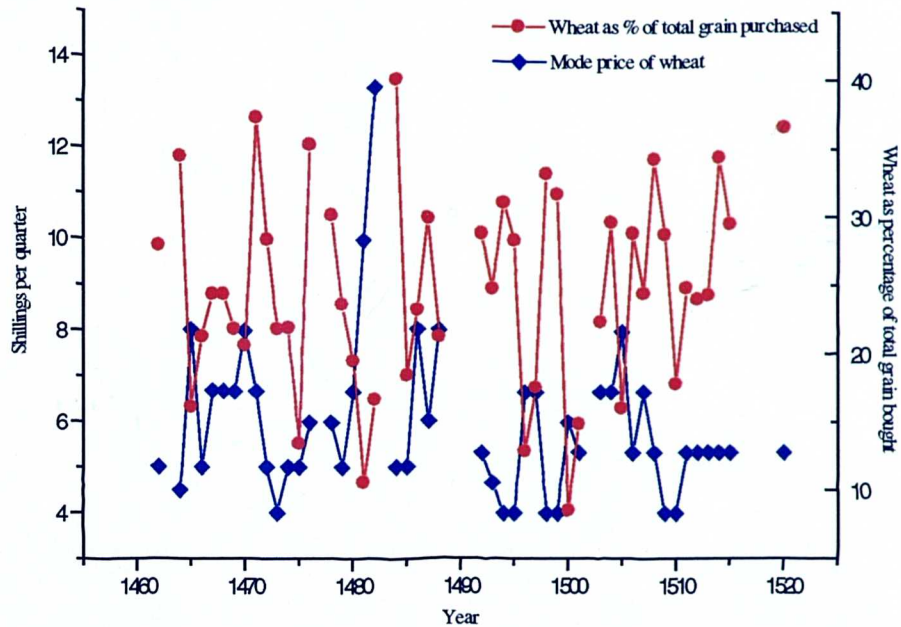
Effects of price changes on purchasing

It is an axiom of much discussion of medieval diet that wheat was the grain of choice in good years, and that in years of bad harvest wheat was supplemented with other grains to a greater or lesser extent depending on the status and wealth of the consumer. This pattern was to some extent regional, with wheat predominating in the South and East of the country but other grains which grew well elsewhere always playing a more important part in the diet of those living in other regions; however, although Durham Priory did record the acquisition of some rye to mix with wheat in most years, only very small amounts were involved.¹⁵² Nevertheless, it is interesting to note that the proportions of wheat bought by the priory did change to some extent in inverse proportion to the fluctuating wheat price. Overall throughout this period 36.6% by volume of the grain bought by the bursar was wheat, a proportion which varied between a lowest point of 8.5% and a high of 39.9%. There was no simple mechanical relationship between the price of wheat and the proportion bought, but they were certainly related. That is to say, whilst the same wheat price in different years by no means meant that identical proportions of wheat would be purchased by the priory, nevertheless when the price of wheat increased the priory tended to decrease the percentage of wheat purchased, and vice versa. This is illustrated by the following graph (fig. 19).

¹⁵² N.S.B. Gras, *The Evolution of the English Corn Market from the Twelfth to the Eighteenth Century* (New York, 1915, reissued 1967), p.37; Dyer, *Standards of Living*, pp.55-7.

Fig.19: The impact of price changes on the amount of wheat

bought by the bursar as a percentage of his total grain purchases, 1460-1520

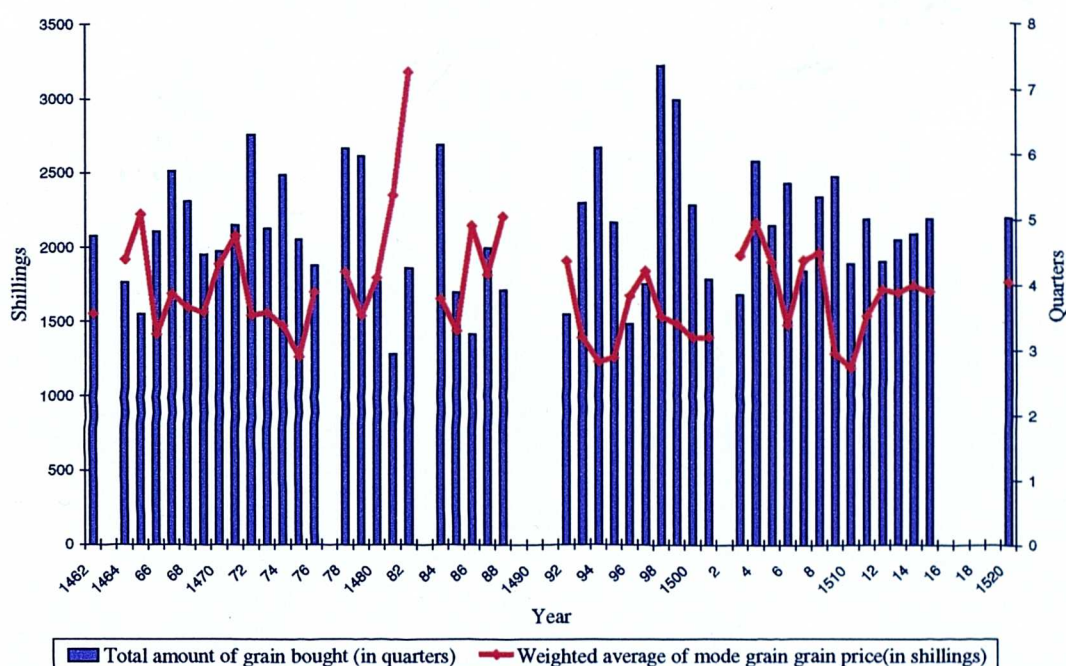


The relationship between increasing prices and a decreasing proportion of wheat being bought is most clearly illustrated in the crisis years of 1480-2, when grain prices increased dramatically.¹⁵³ The average wheat price over the period from 1460 to 1520 was 5s.4d. per quarter, but at Durham this rose to 6s.8d. in 1480/1, 10s.0d. in 1481/2 and 13s.4d. in 1482/3. The proportion of wheat bought by the priory in these years fell to 19.5%, 10.6% and 16.7% respectively. Whilst this shows the effect of increasing prices, the fact that the proportion of wheat actually rose slightly in 1482/3 when the price was at its height also demonstrates the point that this effect was not constant and predictable in detail, only in trend. It may well have been the case that the priory's stores of wheat had been

¹⁵³ See chapter five, p.241.

depleted over the previous two years, and could no longer be called upon to supplement the wheat purchases of the priory.¹⁵⁴ The lowest proportion of grain purchased by the priory in this period, 8.5%, occurred in 1500/1 when the wheat price was moderately above the average, at 6s.0d. per quarter.

Fig. 20: Total amount of grain bought by the bursar each year, with weighted average of mode grain prices, 1460-1520



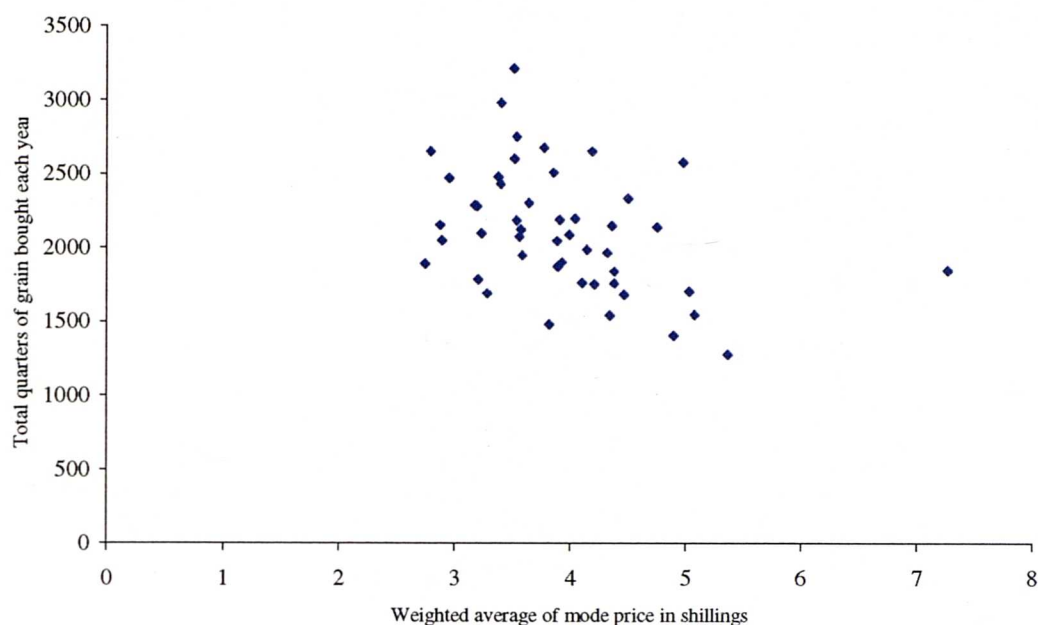
A similar picture may be seen for the total amount of grain bought by the bursar for the priory from year to year. The graph above (fig. 20) shows the relationship between the average annual mode price for all types of grain, weighted to take into account the different amounts of each bought and the total quantity bought by the bursar for each year. The picture is not a straightforward one, but some overall impressions may be drawn. In the first place, it may be

¹⁵⁴ See the discussion on the priory's granary policy, pp. 121-5.

seen that there is some relationship between price and the amount of grain acquired by the priory. Where the price increased a great deal, notably in 1481-2 and to a lesser extent also in 1470-1 and 1496-7, the amount bought dropped. Similarly drops in price, such as in 1494 and 1499, saw an increase in the amount bought. In general it would appear that, whilst there was not a 'straight line' correlation between price and amount bought, nevertheless the amount bought approached its highest level of circa 3000 quarters when the price approached its lowest level of circa three shillings per quarter, and dropped as the price increased, approaching its lowest level of circa 1500 quarters when the price went above circa five shillings per quarter. What this seems to be implying is a surprising degree of elasticity of demand in a commodity so fundamental to diet. The following scatter diagram (fig. 21) shows both this relationship and its diffuseness more clearly.

It is clear from fig. 21 that an effective minimum demand for grain for the priory was around 1500 quarters a year, and that purchasing to this level was unaffected by price changes. It is also clear that purchasing above this level was correlated with changing prices to some extent: for example, there are only two instances of large quantities of grain over 2500 quarters being purchased when the average price was over 4s.0d. per quarter, compared to six occasions when the price was below this level. In addition, the years in which the price was lowest, whilst not seeing the very highest quantities purchased do show a much higher level, 1896q. being the minimum amount purchased when the price was below three shillings per quarter

Fig.21: Scatter diagram illustrating the elasticity of the priory's demand for grain, showing the prices at which different quantities of grain were bought by the bursar, 1460-1520.

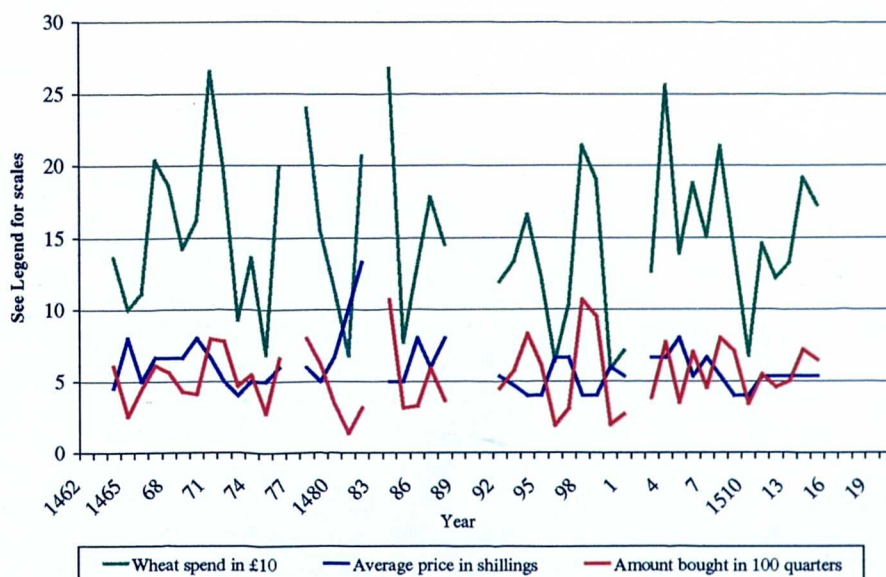


It is interesting to see whether there were any differences in the pattern of elasticity of demand for the different types of grain. The following graphs (figs. 22-24) set out the relationship between modal price, amount spent and amount bought by the bursar in each year over this period, by commodity: wheat, barley and oats. Peas and beans are not looked at here since the small quantities involved in each year make these purchases ineligible for such an analysis.

The first of these graphs (fig. 22) shows that for wheat a great deal of yearly fluctuation was usual. In general, sharp upward peaks in price are mirrored by downturns in amount bought (e.g., 1465 and 1496-7), whilst similarly downturns in price tend to see increases in the amount bought (e.g. 1497 compared to 1498-1500). It is worth noting however that there was no

simple or absolute relationship between price and amount bought: although the two curves tend to mirror each other, the amount bought can be very different in different years with the same mode price. For example, the bursar acquired just over 450 quarters in 1512 and nearly 720 in 1514, despite the price being 5s.4d. per quarter in each case.¹⁵⁵ The lack of any simple relationship is emphasised by looking at the third line, which shows the amount spent on wheat by the bursar each year. It might have been expected that this would stay relatively stable and more or less wheat be purchased each year to compensate for lower or higher prices. This is clearly not the case however, since the amount spent fluctuates more widely than either the price or the amount bought by the priory. The amount spent followed (in exaggerated scale in fig.22) the amount bought.

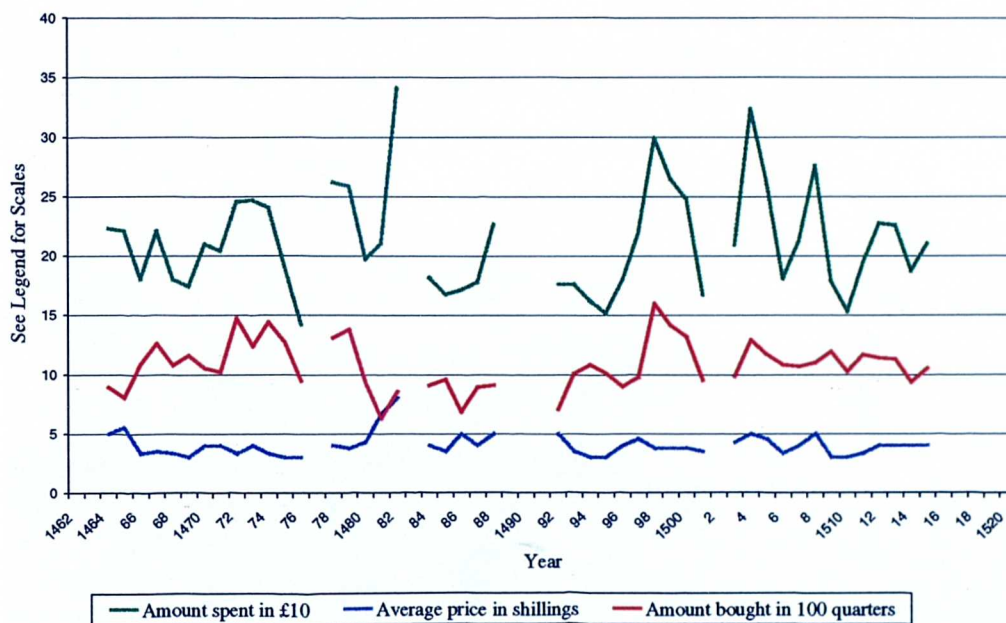
Fig.22: The impact of price changes on the bursars' wheat purchases, 1460-1520



¹⁵⁵ Similarly, he acquired just under 450 quarters in 1465/6 and around 480 quarters in 1472/3, when the price was 5s.0d. per quarter; and in 1494-5 and 1498-9, when the price was 4s.0d. per quarter, the amount of wheat entering the priory varied between just over 600 and around 1070 quarters.

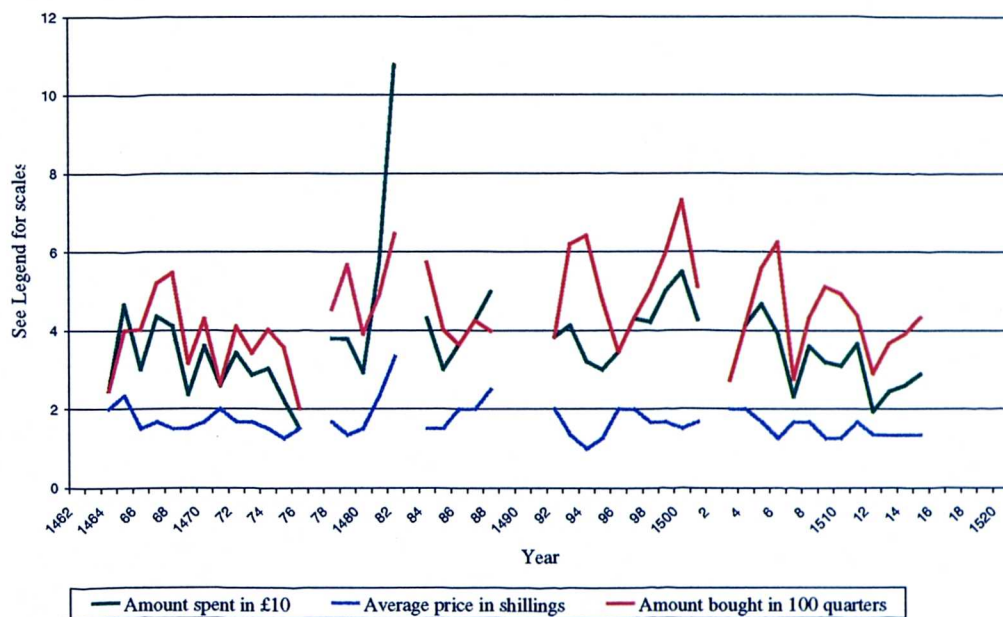
The second graph (fig. 23) shows the same data for barley purchases. It is clear that these were subject to much less abrupt fluctuations, whilst still conforming to the same basic pattern as was seen for wheat. The price and amount bought lines mirror each other quite clearly, although what is noticeable here is that the price line is markedly flatter than the amount bought line, whilst the amount spent line is still more jagged. In other words, small changes in price were amplified by disproportionate increases in purchasing. Once detected, this tendency can to an extent be traced in the cases of the other grains too, but it is most marked for barley.

Fig. 23: The impact of price changes on the bursars' barley purchases, 1460-1520



Finally, for oats it is again the case that to a great extent the price curve is mirrored by the amount-purchased curve (see fig. 24), although in 1482 both price and the amount purchased increased together. The amount-bought curve for oats shows a generally greater degree of fluctuation than the amount-spent curve, whereas the opposite is the case for wheat and barley, but this is a function of the lower price of oats and is not indicate any significant difference in purchasing policy between the various grains.

Fig. 24: The impact of price changes on the bursars' oat purchases, 1460-1520



It appears from the foregoing, then, that there was no particular or consistent policy in place either to buy the same amount of grain in each year regardless of price or conversely to spend roughly the same amount each year. The priority was to some degree reactive to price, but other factors than simply price were involved in the purchasing decisions that they made. The minimum

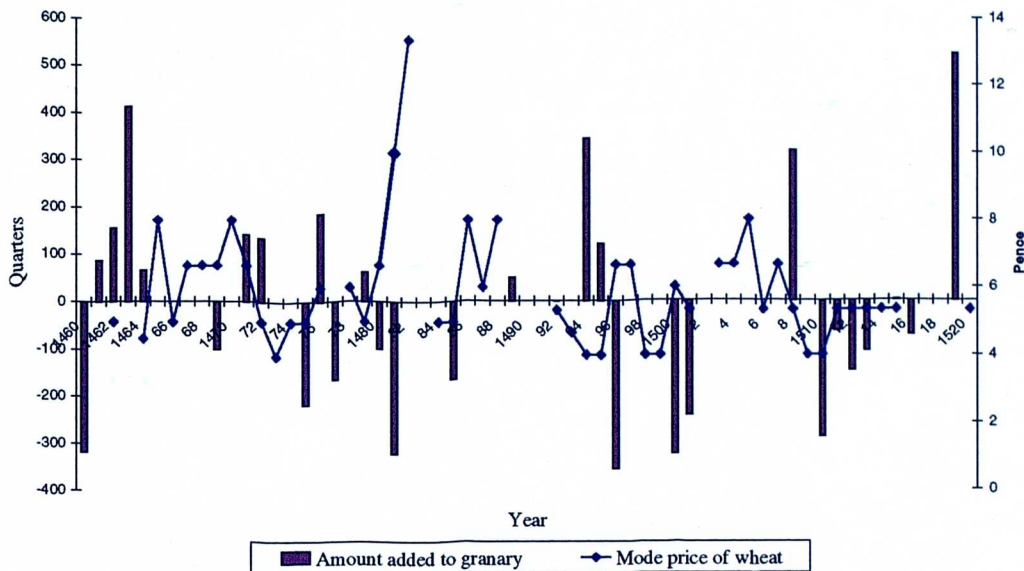
amount that the priory required for its needs was the most important of these; the priory bought at least 1282q.4b. of grain each year regardless of price, whereas purchases over this level were much more responsive to price changes as the scatter diagram (fig. 21) demonstrated.¹⁵⁶

Stockpiling

The priory's grain purchasing strategies may have been partially affected by the existence of the granary. Its presence gave the monastery the ability, should they so wish, to stockpile grain in cheap years to offset shortages that might occur in expensive years. In addition, the state of the supplies contained within the granary from time to time may have influenced the priory's purchasing decisions on a short-term basis. These issues can be investigated by an examination of the amount of grain which was added to or removed from the granary store in each year, an analysis which is made possible by the fact that the granators' accounts each include the amount of grain left over from the previous year and the remainder left at the end of the current year. By a simple process of subtraction, the amount by which the granary was supplemented or depleted over the course of the year is uncovered. It is unfortunate that the price and store data come from two different sources, the bursar's and the granator's accounts respectively, because this means that the two pieces of information have not always survived for the same years. However, whilst this may hinder this analysis it does not invalidate it. The graph below (fig. 25) shows the result of this analysis for the priory's wheat stores, which may be taken as typical.

¹⁵⁶ See Appendix III, pp.341-2, for scatter diagrams for each grain type. These all show a similar pattern of elasticity of demand but only above a certain minimum quantity.

Fig. 25: Stockpiling and the use of the granary; the relationship between wheat prices and the changes made to the priory's stock levels, 1460-1520



Looking at the years with positive and negative grain store movements separately, the average amount of wheat by which the granary was supplemented (in years when it was supplemented) was 186 quarters and the average amount of wheat by which it was depleted (in years when it was depleted) was 187 quarters. The similarity between these two figures immediately suggests that the priory practised a policy of maintaining a reasonably constant level of grain in the granary, if not from year to year then at least on average over a few years. The gaps in the series of granators' accounts mean that this cannot be studied in greater depth, but it seems likely that the size of the granary and the risk of spoiling from damp or vermin limited the extent to which large stocks were considered desirable.

The issue of the effect of price movements on stockpiling decisions is rather more complex. For those years in which the movement in the granary stocks was greater than this average movement of 186 or 187 quarters, a price is lacking for three of the eleven years, and for half of the years in which greater than average amounts of grain were added to the granary. For those years in which both grain movement and price information do remain no clear cut pattern emerges. For example, in 1501/2 and 1508/9 opposite storage strategies were used despite the price being just over five pence per quarter in both years. It is possible that this might have been because this was a borderline price, although the average wheat price over the whole of this period was six pence per quarter. However, the same situation also occurred in 1494/5 and 1510/1, years in which wheat cost only four pence per quarter, the lowest price recorded throughout the period of this study. It must be concluded that there was no dividing line of a certain price above which grain was taken from store and beneath which grain was added to the granary.

In addition to this lack of a clear price division, there is also no clear relationship between the price paid each year and the size (as opposed to the direction) of the amount of grain added to or removed from the granary. Although slightly more grain was added to the granary in 1494/5 than in 1508/9 when prices were higher, the lack of any price information for the other two dates on which large deposits were made makes analysis of this data futile. Turning to the years in which the granary was depleted (again a small sample) there is again no apparent pattern. For the one year in which grain prices were startlingly high, at ten pence per quarter, in 1481/2, the amount used from the granary is only the third highest. Similarly, when prices were at their lowest by

no means the smallest amount was taken from the granary. Furthermore, a notable amount was removed from the granary in 1510/1, when prices were at their lowest.

The conclusion that there was no noticeable link between grain price and stockpiling is counter-intuitive. It is possible that the priory's differing reactions in different years in which the same price applied were complicated by external factors which changed over time, and in an attempt to eliminate such differences the following table shows the grain movements for adjacent years for which both price and granary information has survived.

Fig. 26: Average mode price of grain and granary movements in adjacent years

Year	Price (pence)	Added (quarters)	Year	Price (pence)	Added (quarters)
1471	6.7	142	1494	4	3441
1472	5	134	1495	4	121
			1496	6.7	-356
1475	5	-218	1500	6	-324
1476	6	185	1501	5.3	-243
1479	5	62	1510	4	-288
1480	6.7	-98	1511	5.3	-63
1481	10	-322	1512	5.3	-148
			1513	5.3	-106

Whilst some of these figures, such as those for 1479-81, do fit the expected pattern others, such as those for 1475-6, show exactly the opposite tendency. Particularly notable is the data for adjacent years in which the price remained constant. In 1494-5, whilst the price remained at four pence per quarter, the difference between the amount added to the granary in the two years was 223 quarters, a figure well over the average yearly movement. These results demonstrate that other issues than price must have been important in determining

the monastery's granary policy, issues which may well have varied from year to year. It would seem probable, given the lack of any consistent pattern in the granary movements, that these were reactive rather than planned; for example, the granary store might have been heavily depleted if it were found to be deteriorating in a particular year due to weather conditions or the quality of that year's harvest. Conversely, a particularly good harvest might have resulted in a great deal of surplus grain being acquired via rent payments or tithes.¹⁵⁷

(ii) Preference: Wine and Spices¹⁵⁸

Wine Purchasing

The wine purchasing of Durham Cathedral Priory throughout the late fifteenth and into the sixteenth century is characterised by the consistently large volume of wine purchased by the monks each year, seemingly regardless of any fluctuations in either supply or price. Throughout the middle ages, individuals and lesser households bought wine as they drank it, from taverns or retailers by the gallon or pint; but large customers like the priory and substantial households bought their wine wholesale, in quantities based on the vast barrel, the tun, which held 252 gallons.¹⁵⁹ It is the three largest of these measures, the tun, pipe and hogshead, that appear most frequently in these accounts, although smaller

¹⁵⁷ See chapter five, pp. 237-41.

¹⁵⁸ This section draws upon, and where appropriate corrects, information given in Threlfall-Holmes, 'Provisioning', pp.16-22, 27-39.

¹⁵⁹ 1 tun = 2 pipes = 4 hogsheads = 252 gallons = 1008 quarts = 2016 pints. Non-standard measures used in these accounts included the butt (here taken to have held the same as a pipe), the roundlet (usually containing 18½ gallons) and the barrel (usually containing 31 gallons). These measures are discussed in W.R.Childs, ed., *The Customs Accounts of Hull 1453-1490* (Yorkshire Archaeological Society Record Ser., 144, 1986), pp.253-256; and under each term in the full *Oxford English Dictionary*. Their use at Durham is discussed more fully in Threlfall-Holmes, 'Provisioning', pp.16-7.

amounts are occasionally mentioned; as in 1468/9, when the bursar recorded the purchase of six gallons of wine ‘to refill a pipe’.

Fig. 27: The bursars' purchases of wine, 1464-1520

<u>Year</u>	<u>Total Spent</u>	<u>Tuns Bought</u>	<u>Average Price (per tun of red wine)</u>	<u>Year</u>	<u>Total Spent</u>	<u>Tuns Bought</u>	<u>Average Price (per tun of red wine)</u>
1464/5	£46.2s.4d.	7.6	£5.13s.10d.	1487/8	£62.0s.0d.	7.5	£8.5s.4d.
1465/6	£14.0s.0d.	2.5	£5.12s.0d.	1493/4	£60.0s.0d.	8.5	£6.9s.2d.
1466/7	£35.13s.4d.	5.5	£6.9s.8d.	1495/6	£45.10s.0d.	8.5	£5.0s.5d.
1467/8	£51.10s.0d.	8	£6.8s.9d.	1496/7	£54.18s.4d.	8.5	£6.4s.10d.
1468/9	£47.17s.4d.	8	£5.19s.2d.	1497/8	£49.15s.2d.	7.5	£6.6s.11d.
1469/70	£48.4s.8d.	8.1	£5.18s.4d.	1498/9	£39.18s.4d.	8.5	£4.7s.4d.
1470/1	£50.2s.10d.	7.5	£6.10s.8d.	1499/00	£44.3s.4d.	7.5	£5.11s.11d.
1471/2	£46.12s.6d.	6.6	£7.1s.6d.	1500/1	£41.8s.0d.	7.5	£5.4s.3d.
1472/3	£50.4s.8d.	7.1	£7.0s.11d.	1501/2	£44.13s.4d.	8.5	£4.18s.4d.
1473/4	£52.0s.0d.	6	£7.13s.4d.	1503/4	£53.15s.4d.	8.8	£5.5s.1d.
1474/5	£54.0s.0d.	8	£6.15s.0d.	1504/5	£46.0s.0d.	7.5	£6.0s.11d.
1475/6	£46.3s.2d.	5.6	£8.1s.10d.	1505/6	£43.13s.4d.	8.8	£4.15s.7d.
1476/7	£44.6s.8d.	8.1	£5.8s.9d.	1506/7	£38.9s.2d.	9.5	£3.15s.7d.
1478/9	£41.16s.0d.	7.6	£5.9s.4d.	1507/8	£50.6s.8d.	9.5	£5.0s.9d.
1479/80	£44.8s.0d.	7.6	£5.16s.0d.	1508/9	£44.6s.8d.	8.5	£4.18s.4d.
1480/1	£48.6s.8d.	8.5	£5.7s.6d.	1509/10	£42.6s.8d.	8.5	£3.13s.4d.
1481/2	£37.10s.0d.	6.8	£5.11s.1d.	1510/11	£42.0s.0d.	8.5	£3.12s.6d.
1482/3	£55.5s.0d.	7.8	£7.2s.7d.	1511/12	£42.6s.8d.	8.5	£3.13s.4d..
1484/5	£69.4s.4d.	9	£7.13s.10d.	1512/13	£53.0s.0d.	8.5	£5.0s.0d.
1485/6	£46.6s.8d.	9	£5.3s.0d.	1513/14	£53.0s.0d.	8.5	£5.0s.0d.
1486/7	£75.0s.0d.	8.5	£8.12s.6d.	1519/20	£42.0s.0d.	8.5	£3.13s.4d.

As a cash purchaser of large quantities of wine, the priory was highly exposed to fluctuations in price. However, all the evidence from these accounts demonstrates that the monks absorbed these cost differences rather than adapt their consumption in the affected years. As the table above (fig. 27) illustrates, the large quantities of wine purchased by the bursar for the priory are fairly constant over the period in question, and variations do not correlate with price movements. Only one year, 1465/6, stands out for an unusually low amount being purchased, and this was not a year in which wine was particularly

expensive. It is not in fact clear why such low amounts of wine should have been purchased that year, but perhaps the wine from the previous year had kept particularly well.

In those years when wine prices rose particularly steeply, particularly 1475/6, 1486/7 and 1487/8, it is possible that the quantities purchased by the bursar may indicate some minor degree of retrenchment. The bursar bought five and a half tuns in 1475/6, compared to eight tuns in the previous year; eight in 1486/7 and seven and a half in 1487/8, having bought nine tuns in the preceding two years. However, differences of these magnitudes are not confined to years when there was a major price rise, and the volumes purchased by the bursar regularly fluctuated by as much as a tun. In addition, it must be noted that there are some years when the amount spent by the bursar rose dramatically because of an increase in the price of wine, rather than volume being cut back to keep spending level. For example, in 1484/5 the amount spent on wine was £69.4s.4d., 144% of the average yearly spend of £48; and in 1486/7, the amount spent went up to £75, the highest spend in these years and 156% of the average. This readiness to pay the highest prices for wine rather than retrench may be seen also in the first half of the century, when the bursar spent as much as £89.14s.1½d. on wine in 1443/4.¹⁶⁰ Sweet, stronger wines were more expensive than the usual table wine bought by the priory, but fashion appears to have had a hand here and these wines were increasingly regularly bought over this period, a butt a year being a regular annual purchase by the sixteenth century.

However, whilst the monks consistently chose high prices over low stocks, there is no reason to believe that they did not keep a careful eye on the

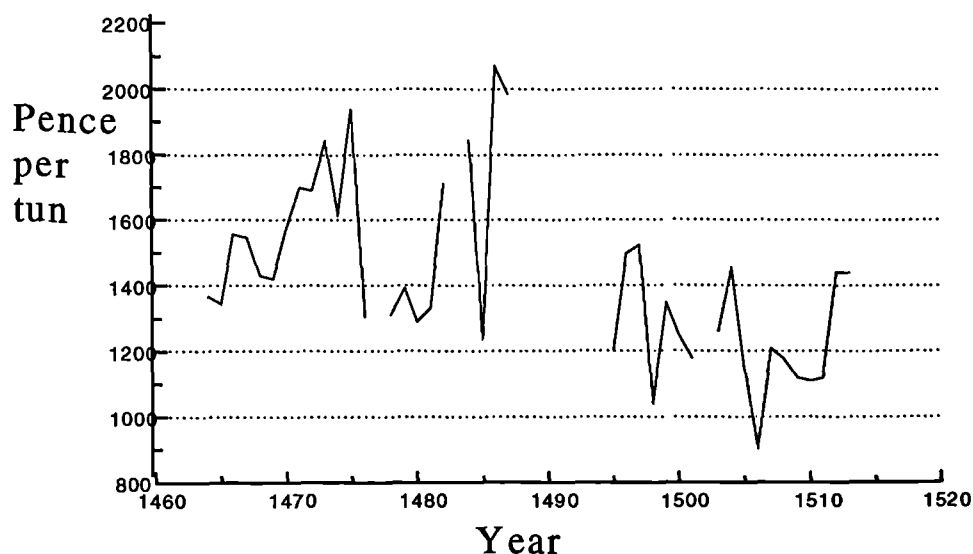
¹⁶⁰Here and elsewhere, figures for the first half of the century are taken from Morimoto, 'Demand and Purchases', pp.84-115.

prices that they paid for their supplies. There is some evidence to suggest that the bursar shopped around over a wide area for his wine, buying in Hull rather than Newcastle if prices there were more favourable. Overall, 6% of the amount spent by the bursar on wine between 1464 and 1520 is recorded as having been spent in Hull, and this was concentrated across a few years in which wine bought at Hull accounted for a significant proportion of the priory's purchases. In particular, in 1481/2, 93% of the wine bought by the bursar was purchased at Hull; as was 65% in 1487/8. An explanation for this unusual concentration of purchasing away from Newcastle might be found in the fact that in 1486/7 (when the bursar bought three tuns of wine in Hull), and in 1487/8, the Hull wine cost £8 per tun compared with £9 per tun for that bought at Newcastle. Wine prices in Newcastle had nearly doubled since the previous year: in 1485/6, Thomas Swan sold four tuns to the priory for £5.6s.8d. a tun, whilst in 1486/7 the same merchant's price for a similar quantity (five tuns) had risen to £9 a tun. It seems unlikely that the same merchant would sell to the same corporate customer in consecutive years two wines of such widely different quality as to account for such a difference in price. In 1486/7, the year this increase occurred, the bursar bought three tuns of wine from Robert Chepman of Hull for £8 each; the discovery of such a large difference in price between Hull and Newcastle in this year may well explain his decision to purchase the majority of his wine in Hull the following year.

Comparable information on prices for 1481/2, the year in which 93% of the bursar's wine purchases were made at Hull, is unfortunately unavailable. The bursar did not purchase wine in Newcastle that year, the remaining 7% being accounted for by wine bought from the terrar of the priory, and the accounts of

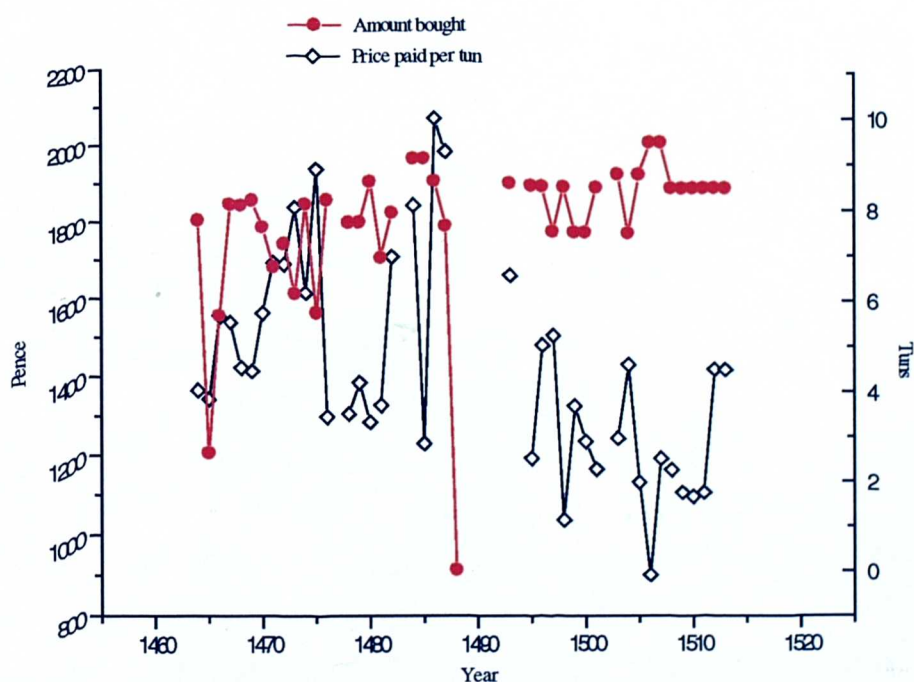
both the hostillar and the sacrist are missing. However, the price of wine in Hull that year, at £5.10s.0d. per tun, was slightly higher than the price in Newcastle the previous year (£5.6s.8d. per tun); and the price in Newcastle the subsequent year, 1482/3, is higher still, at around £7. The implication is that price movements in 1481/2 may well have followed a similar pattern as can be seen in 1487/8, with rising prices experienced in Newcastle sending the bursar to Hull to see if wine was cheaper there: and presumably returning to Newcastle in the following year as prices equalised between the two markets. Short-term local fluctuations such as this were one thing, but wider events could also have impact upon the prices of imported goods such as wine. The following graph (fig. 28), illustrating the prices paid by the priory for wine over this period, clearly shows the effect on wine prices of the loss of Bordeaux and the political manoeuvring caused by the instability of English politics in the third quarter of the fifteenth century.

Fig. 28: Prices paid by the priory for a tun of wine, 1464-1520



Prices increased to a peak in 1475/6, but then dropped dramatically following the removal of heavy French duties with the Treaty of Picquigny in 1475, and its commercial counterpart signed in January 1476. Apart from the brief but violent rise in the mid 1480s, perhaps a result of Henry VII's order that all wine be carried in English ships, prices generally remained at a consistently lower level between 1490 and 1520 - between 4d. and 6d. a gallon - than they had done in the previous quarter-century, when prices had fluctuated between around 5d and 8d. per gallon. But while it would not be true to say that the priory's demand for wine was elastic, since from year to year their purchases did not respond even to the most pronounced price fluctuations, over the whole of this period wine purchases did tend to increase as prices decreased, as the following graph (fig. 29) shows.

Fig. 29: The average price paid for wine by the bursar and the total amount bought in each year, 1464-1520



These prices are, of course, the wholesale terms on which the Priory obtained the large quantities of wine that it purchased each year. There was a significant difference between the price paid retail for a gallon of wine and the price per gallon when it was purchased by the tun. For example, in 1473 a gallon of wine purchased in Cambridge cost 10d., whilst the five tuns bought by the Dean and Chapter of Norwich cost them only 5½d. per gallon. Similarly in 1488/9, wine bought retail in Oxford could cost 8d., 10d. or 12d. a gallon, and the wholesale price in London averaged just under 6d.¹⁶¹ It is also possible to compare the prices being paid retail for wine in Newcastle with the amounts charged to the Durham monks in 1508-11, since the Newcastle Chamberlains accounts, which have survived for those years, include some small wine purchases among their miscellaneous expenditure. For example, on the 16th August 1508 the accounts record the purchase of a 'pottle' (half a gallon) of wine 'for the Judge', and three pottles 'for the Chancellor', at 8d. per gallon; in that year the bursar at Durham paid an average of just under 5d. per gallon for his eight tuns of wine. However, wholesale discounts were evidently not reserved for large customers such as the priory, and the volumes that a customer had to buy to take advantage of the lower prices were not high. In 1511, the chamberlains paid the same price - 4½d. per gallon - for the two hogsheads that they bought, as the Durham bursar did for his eight tuns.¹⁶²

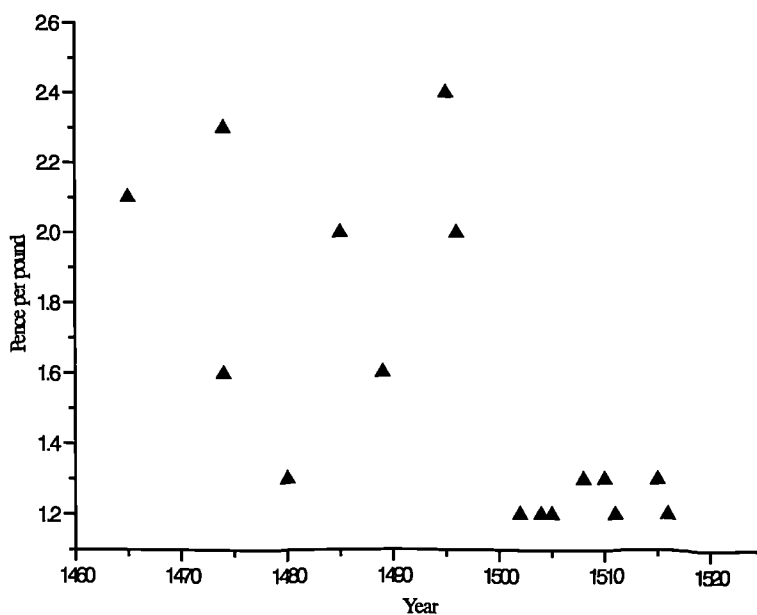
Spice purchasing: Dried Fruit

The spices for which most information can be gleaned from these accounts are dried fruit, sugar, pepper, ginger, aniseed and licorice. In the

¹⁶¹James, *Wine Trade*, pp.62, 68.

following section, the priory's purchases of each of these will be briefly considered. Unlike wine, changes in supply and price did have a direct impact on the priory's purchases of some of these spices, and changing fashions in taste also seem to affected them. By far the largest category of spices bought by the priory , both by volume and expenditure, was dried fruit. The fruits bought included figs, raisins, 'big raisins', currants and prunes, and are measured in a bewildering variety of ways: in pounds, dozens of pounds, frails, toppets, pecks and sorts.¹⁶³ The prices paid by the priory for dried fruit varied widely in the first half of this period, but both dropped and became more consistent after 1500.

Fig. 30 Prices paid by the priory for dried fruit, 1464-1520



¹⁶² C.M.Fraser, ed., *Accounts of the Chamberlains of Newcastle-upon-Tyne, 1508-1511* (The Society of Antiquaries of Newcastle-upon-Tyne, Record Ser., 3, 1987), pp.34, 203.

¹⁶³These measures have been standardised for the purposes of this study, using a combination of documentary references, secondary literature and the relative prices paid by the priory as a guide. These standardisations are as follows: a frail = 40lbs; a toppet = 20lbs; a peck = 80lbs and a sort = 120lbs Key secondary sources are *The Oxford English Dictionary*, Vol.6, p.138; Vol.11, p.140; Wade, *Customs Accounts*, p.311, and Rogers, *Agriculture and Prices*, Vol. IV, , pp. 668-9.

The average amount of dried fruit bought by the priory was 538 lbs per year, but this was not spread evenly across this period. The communar bought an average of 120lbs in the 1470s and 80s, which increased to over 300lbs by the first decades of the sixteenth century. The cellarer bought an average of 255lbs throughout the later fifteenth century, but by the second decade of the sixteenth century was purchasing much greater amounts – 692lbs in 1515. It would seem likely, therefore, that the priory's demand was elastic, and that the major drop in prices that took place around 1500 stimulated increased demand. It is worth noting that the great increase in the amount of dried fruit bought by the priory over this period reflects a general trend throughout medieval Europe to include more dried fruit in cookery as time went on, as can be seen in a comparison of fourteenth and early fifteenth century recipes with those of the later fifteenth and sixteenth centuries.¹⁶⁴

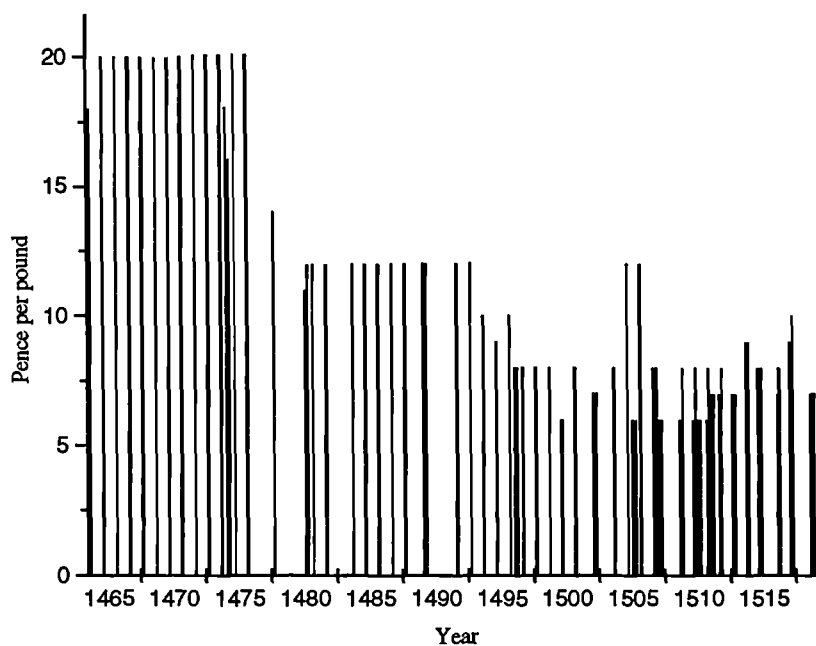
Sugar

Perhaps the best price series in these accounts is that for sugar. This data shows some extremely interesting price movements. As the chart below (fig. 31) illustrates, sugar prices more than halved over this period, descending in two main steps rather than maintaining a steady downward trend. Between 1478 and 1482, the price of sugar dropped dramatically from a mode price of 20d. per pound to 12d.; and then dropped again to around 7d. per pound in c.1495. The increased variation in price which occurs towards the end of this period was probably in fact a characteristic of prices in the earlier decades too: the data

¹⁶⁴Hieatt & Butler, *Curye on Inglysch*, p.12.

sources proliferate in the accounts in the later years, so that less uniformity in the data is to be expected

Fig. 31: Prices paid by the priory for sugar, 1464-1520



Sugar prices were dropping throughout Europe in these years as a result of the new Portuguese navigations and subsequent colonial developments, which included a large-scale development of sugar production and trade in and from the new territories.¹⁶⁵ Comparable price series for this period can be found for Flanders, Brabant and Cambridge, in the archives of hospitals and colleges. The specific forms of sugar referred to vary in these accounts - white sugar was the more highly refined variety, and was thus most expensive; the monks of Durham instead bought sugar-plate and comfits, and elsewhere candy, powdered or loaf-

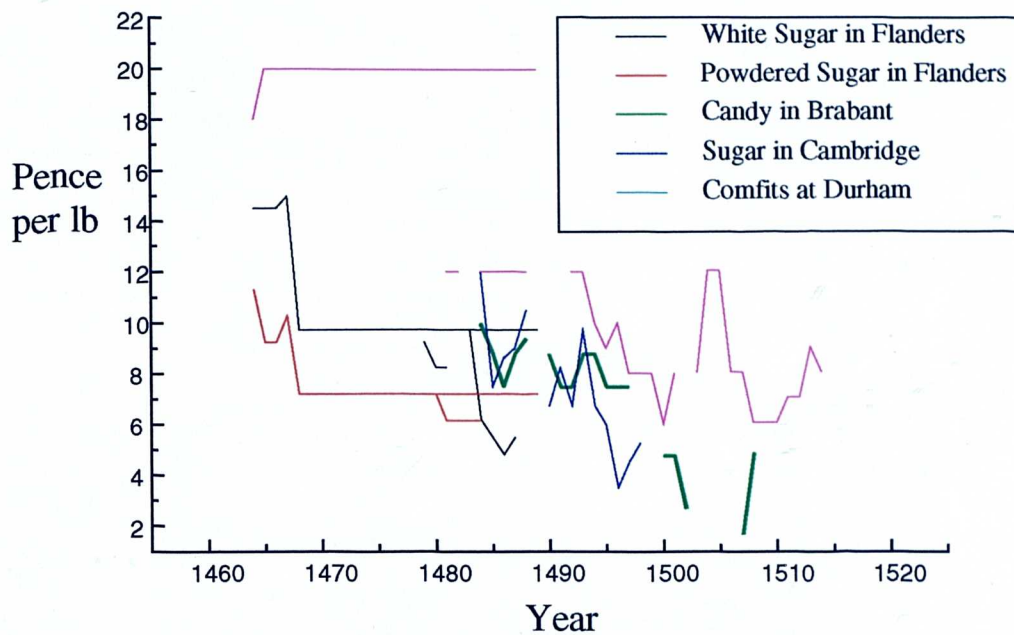
¹⁶⁵ H. Van der Wee, *The Growth of the Antwerp Market*, 3 vols. (The Hague, 1963), Vol.2, pp.127-9; J.A. Van Houtte, *An Economic History of the Low Countries* (London, 1977), p.176.

sugar was preferred - but prices for all the different types and grades of sugar appear to have risen and fallen together. Thorold Roger's records of prices in the Cambridge area show a great deal of variety, but an average price was probably around 1s.6d. per pound throughout the 1460s, falling to 1s. per pound in 1468 and then varying between 6d. and 1s. per pound until the 1490s, after which prices varied between 3d. and 8d. per pound for the rest of the period.¹⁶⁶ In Flanders, white sugar prices fell by a third, from around 15d. to 10d. per pound, in 1468, and prices then remained fairly constant until 1484, when they began to fall gradually to around 4d. per pound by 1500. Similarly, powdered sugar, which cost around 10d. per pound in the 1450s and 1460s, fell to 6d. per pound after 1468. The timing and magnitude of the price drop of these two types of sugar was thus the same, despite their very different prices. Prices for another type of sugar may be found in the records of St. Elizabeth's Hospital in Antwerp, which bought sugar-candy each year: from 1484 to 1498 the price averaged 8d. per pound. The price then fell suddenly after that date to average 4d. per pound in the first years of the new century.¹⁶⁷

¹⁶⁶Rogers, *Agriculture and Prices*, Vol.III, pp.528-535.

¹⁶⁷C.Verlinden, ed., *Documents pour l'histoire des prix et des salaires en Flandres et en Brabant*, (Bruges, 1959), pp.47-8, 330. Prices given in Flanders and Brabant coinage have been converted into the equivalent English currency using the Flanders/Sterling conversion table in N.B.Harte & K.G.Ponting eds., *Cloth and Clothing in Medieval Europe* (London, 1983), p.70; Brabant currency has been converted on the principal that £1.10s. Brabant = £1 Flanders, as stated in P.Spufford, *Handbook of Medieval Exchange* (London, 1986), p.230.

Fig. 32: Prices of sugar at Cambridge, Flanders, Brabant and Durham, 1464-1520



Two interesting features of the evidence from these accounts are that the drop in price in Durham came over a decade later than in Flanders; and that prices in Durham, (and presumably in the north-east in general), were significantly higher than elsewhere, at up to double the price in the Low Countries. As the graph (fig. 32) illustrates, sugar prices in Flanders dropped in the late 1460s, a fall that did not register at all in the prices paid by the monks of Durham (no data is recorded by Thorold Rogers for Cambridge for these years). The fall in prices experienced by Durham and Newcastle in the years around 1480 clearly mirrors trends elsewhere. However, for the whole of this period it can be seen clearly from the graph that the prices paid by the priory were consistently higher than prices in Flanders, Brabant or Cambridge. This may well reflect the additional transport costs involved in either importing sugar to Newcastle, or transporting it via London. It is also possible that low demand for

spices in the Durham and Newcastle area resulted in low levels of competition in the trade; only a handful of merchants appear supplying the priory with spices compared to nearly a hundred selling wine.¹⁶⁸ Both in Flanders and in East Anglia, then, sugar prices fell by about a third in 1468; in Newcastle, this fall appears to have been delayed until c.1480. The lesser fall at the end of the century is mirrored by the experience of St.Elizabeth's in Antwerp, but seems to have been preceded by around 15 years in Cambridge. Unfortunately the Flanders price series are broken off at 1500 and 1485 respectively, so comparisons here cannot be made.

The bursar, the cellarer and the communar all list sugar purchases in their accounts. The bursar purchased between 3lb and 8lb each year (averaging just over 5lb), and the communar between 3lb and 7½lb (averaging just over 6lb). The cellarer did not buy sugar on a regular basis until after 1478, and the amount that he purchased was much more varied, being between none and 64 lbs thereafter. His purchases averaged around 20lbs per year, although an average for these purchases is less meaningful than for those of the bursar and communar due to the much greater variation which existed from year to year. Nevertheless, the average sugar consumption of the monastery as a whole can be calculated to have been slightly more than 21 lb each year, or 8½ ounces per monk per year.

As with dried fruit, the priory's purchases of sugar show a marked increase over the period under consideration here, rising from around 6lb per year in the 1460s and 1470s, to 60 or 70 lb by the first decades of the sixteenth century.¹⁶⁹ By the 1520s and 1530s, over 100 lbs of sugar were being bought each year, and the average per monk had thus risen to 2½ lbs per year, much

¹⁶⁸See chapter six, p.274.

higher than the average for the period but still relatively small by today's standards. It should be stressed that the volume of sugar purchased by the priory in these years more than doubled over the period as the price halved. A detailed look at the purchases made by the bursar demonstrates the close relationship between price and amount purchased over this period. The bursar bought 3lbs per year in the 1470s, when sugar cost 20d./lb, and was buying around 6lb per year by the 1490s, when the price had dropped to 10d./lb or less. In 1505/6 and 1506/7, the price briefly rose from 6d./lb to 12d./lb, and the volume purchased by the bursar immediately dropped to 5lb, rising to 6lb again in 1507/8, when the price dropped to 8d./lb. The quantities bought by the cellarer make the same point more dramatically; he bought no or virtually no sugar in the 1460s and 70s, and only small amounts (6-26lbs) in the 1480s. By the 1500s much more was being bought: 49lb in 1503, 50lb in 1504, and 42lb in 1506, whilst the four surviving accounts from 1520-36 show the purchase of between 63 and 104 lbs per year.

Pepper

Pepper prices and quantities purchased are only specified in the cellarer's accounts until after 1502/3, when the communar began to separate pepper out in his accounts. Both clearly bought pepper throughout this period however, as it is frequently mentioned by name in the communar's miscellaneous list of spices purchased but without individual details being given. The lack of more than a single data source means that fewer conclusions can be drawn for pepper than for the spices looked at so far. It would seem however, that no great changes took place in the priory's purchasing of pepper. The price paid varied from year to

¹⁶⁹ As with dried fruit, sugar consumption was rising throughout Europe in this period. Hieatt and Butler, *Curye on Inglysch*, pp.9-12.

year, with a low of 13d. per pound paid by the cellarer in 1465/6, and a high of 24d. per pound paid by the communar in 1502/3. However, these fluctuations were not indicative of any trend, and in general pepper prices appear to have remained around the 16-20d. mark throughout this period.

The amount bought, too, appears to have remained stable. The cellarer bought between 6 and 16 dozen pounds in these years, but the latter figure was unusual and occurred right at the end of the period. Throughout the late fifteenth and the first decade of the sixteenth centuries, the cellarer bought between 72 and 108 lbs of pepper per year, averaging 92½. The cellarer thus provided the vast majority of the priory's pepper, the communar purchasing only between ½ and 1 lb per year after 1502/3 when his accounts begin to show a quantity. On average, then, the priory purchased around 93 lbs of pepper per year, and this amount remained steady throughout this period.

Although it might be expected that the Portugese entry into the pepper business from 1500 onwards would have driven prices steeply downwards, it seems that the Portugese were careful not to over-supply the market, but to keep imports at a level that would maintain the price on the European market.¹⁷⁰ However, prices did drop slightly, and the prices paid by the priory fit the pattern found in Antwerp, with a lowest point around 1515, when the Portugese had achieved their major victories at sea.¹⁷¹

Ginger

Ginger was second only to pepper in providing the stable basis of the high-risk international spice trade. It was a very popular ingredient throughout

¹⁷⁰Wake, 'Changing Pattern', pp.387-8.

¹⁷¹Van der Wee, *Growth of the Antwerp Market*, Vol.II, p.129.

the medieval period, being considered an excellent aid to digestion.¹⁷² In particular, ginger was popular in comfits, and was a common ingredient in a wide variety of meat- and milk-based dishes.¹⁷³ The officers of Durham priory bought ginger regularly - it was one of the few spices mentioned by name each year in the hostillars' accounts, and was listed individually by the communar throughout this period. Ginger also occurs in the bursar/cellarer indentures, but differs from most of the spices acquired by the priory in being bought only sporadically by the cellarer, the purchases of the communar providing the priory with a regular supply of between ½lb and 1lb per year. The amount bought by the hostillar was not stated in the accounts but was clearly small, whilst the cellarer bought no ginger at all in 1485/6 and 1504/5, ½lb in 1465/6 and 1474/5, 4lb in 1515/6 and the unusually high amount of 13lb in 1495/6. Only the communar's purchases provide enough information for an analysis of purchasing trends to be attempted, but the pattern found here is very interesting.

The prices paid for ginger at Durham varied fairly widely over this period, between 1s.4d. and 3s.4d. a pound, a price range similar to that noted by Thorold Rogers for this period.¹⁷⁴ However, the actual amount spent by the communar on this spice did not vary to the same degree - being between 16d. and 24d. per year - since the amount that he purchased varied with these changes in price. A very clear correlation can be seen here between price and demand: the communar bought 1lb per year when ginger cost less than two shillings per pound, but only ½lb when the price rose above that level. Two shillings per pound was clearly felt to be the decisive point, as when ginger cost exactly this much quantities of ½lb, ¾lb and 1lb were purchased.

¹⁷²Boorde, *Dyetary*, p.286.

¹⁷³Austin, *Two Cookery Books*, eg. pp.10-11, 17, 25.

Aniseed and Licorice

Purchases of aniseed and licorice are recorded in the bursars' and the communars' accounts, with only one purchase recorded in the bursar/cellarer indentures.¹⁷⁵ The bursar consistently purchased 1lb of aniseed and ½lb of licorice in virtually every year until 1507/8, when these quantities suddenly rose to the new levels of 6lb and 1lb respectively, where they remained for the rest of the period. Price changes do not appear to have been behind this increase in the amount of these spices bought by the priory. Although aniseed and licorice prices are not given separately until after 1507/8, the total paid for the amount of the two that was bought prior to that date makes it clear that prices had not changed over this period. From 1507/8, the prices of the two commodities are given separately, at 3d. (occasionally 4d.) per pound for aniseed, and 6d. per pound for licorice dropping to 3d. or 4d. per pound after 1511/12. Before the change point, 6d. per year was paid for the two together, which is consistent with the 1507/8 pricing of 3d. and 6d. per pound respectively. The only price change evidenced here, then, was the late drop in the price of licorice. This occurred five years after the volume bought doubled, ruling out price change as a factor in that purchasing decision. In any case, this price drop has no parallel in the case of aniseed, yet the volume of this purchased by the bursar did not double but increased six-fold.

Interestingly, the prices and price changes for aniseed and licorice that are recorded in the bursars' accounts do not find parallels in the communars' records. These show the price of aniseed dropping quite early in this period, from 6d. per pound in 1474/5, to 5d. in 1489/90, and then to 4d. from 1496/7 onwards. The price of licorice was around 4d. per pound in 1474/5 and 1480/1, 6d. per

¹⁷⁴Rogers, *Agriculture and Prices*, Vol.III, pp.528-535.

pound in 1489/90 and 1496/7, and then 4d. from 1499/1500 onwards, this drop thus preceding that shown in the bursar's accounts by ten years. Unfortunately, comparable price series for these commodities are not published, so it is difficult to get a feeling for which of these patterns is the deviant. It is possible that the reason the price drop came earlier for the communar was because he was purchasing larger quantities than the bursar, around 4lb of aniseed and 1 - 1½lb of licorice per year. However, the prices paid by the bursar did not drop when the quantities he purchased rose to these levels; and in any case, one would expect relative price changes to have appeared in both accounts at the same time, even if bulk discounts meant that the absolute prices differed. Nor can these differences be explained entirely by differing sources of supply, although little evidence for this survives and so this may have been the case in some years. The communar only states the merchant from whom aniseed was purchased in three years, and licorice never. In 1474/5, aniseed was bought from William Cornforth, in 1480/1 from John Farne and in 1505/6 from John Farne's widow. These are all familiar names from the bursar's accounts, although direct comparison is not possible in 1480/1 since the bursar's account for this year is badly damaged. In 1505/6, the bursar bought aniseed from a different merchant to the communar, John Eland. However, in 1474/5 both obedientiaries purchased their aniseed from William Cornforth of Newcastle yet they still paid different prices, the bursar paying 6d. for 1lb of aniseed and ½lb of licorice, the communar paying 1s.0d. for 2lb of aniseed.

It is interesting that the priory should have bought these spices in comparable quantities to the other spices looked at above, since they were much

¹⁷⁵ 2lb of aniseed were bought by the cellarer in 1495/6, but no other purchases are recorded in the sample years looked at here.

less common in the recipes of the time. It seems likely that these two items were used primarily for medicinal, rather than strictly culinary, purposes - although the two were by no means sharply differentiated in the medieval mind. The medicinal qualities assigned to them by Boorde do not read any differently from the characteristics he attributes to everything from pepper to strawberries: aniseed 'is good to cleanse the bladder...and makes one have sweet breath', whilst licorice 'is good to cleanse and open the lungs and breast, and loosens phlegm'.¹⁷⁶ However, it is perhaps significant that neither licorice nor aniseed are mentioned at all in the major surviving fifteenth-century recipe collections, and anise, the parent plant of aniseed, is mentioned only five times in the collections looked at here.¹⁷⁷ If it were indeed the case that these spices were used primarily as a medicine, then the sudden increase in volume seen in the middle of the first decade of the sixteenth century is explicable. Mortality, both at Durham and elsewhere, appears to have suddenly increased in this decade, with deaths often attributed to 'sweating sickness'.¹⁷⁸ The jump in purchasing of these spices in and after 1507/8 may well be the mark that this high mortality and the monks' attempts to stem it have left in the accounts.

Clearly there were variations in the priory's demand and pattern of changing demand for different commodities within the overall heading of luxury imported goods. However, the wines and spices bought by the priory can be seen as a class of goods with which the priory displayed certain characteristic purchasing behaviours. First, demand for these commodities was essentially elastic, in the basic sense that they were not staple foods. The priory's purchases

¹⁷⁶Boorde, *Dyetary*, pp.281, 287.

¹⁷⁷The recipe collections referred to here are Austin, *Two Cookery Books* and Hieatt and Butler, *Curye on Inglysch*.

generally show a tendency to increase purchases of these luxury items when prices dropped, although the element of display and status which the consumption of these goods incorporated ensured that short-term fluctuations were not necessarily mirrored in the priory's purchasing. The wine purchases of the priory are the clearest example of this. Secondly, being imported goods, changes in the political situation and in the economic well-being of areas far distant from the priory (e.g. the Levant) impacted upon prices and upon the supply of these goods. Thirdly, the impact of fashion and changing tastes must not be forgotten. Europe-wide trends such as the increasing popularity of strong sweet wines and an increasing tendency to purchase a wider variety of spices can be seen mirrored in the priory's purchases over this period.

(iii) Pomp: Cloth

The priory purchased a wide variety of cloths, falling into four major categories: livery cloths, other clothing, linens, and cheaper, coarser cloths. Cloths bought in this period included woollens, linen, serge, hardyn, canvas, sackcloth, haircloth, blanketing and shirting, and the price paid per yard varied from as little as 2d. for hardyn to as much as 4s.0d. for the woollen cloth for the prior's habit. Black and white furs were also bought, for trimming the gowns of the major officials of the priory, and some manufactured items such as gowns, gloves and hoods were also purchased. In total, the average yearly cost of all these goods to the priory was over £71, around 4% of the priory's total annual expenditure, for which an average of 1,474 yards of cloth were purchased each year.

¹⁷⁸ Forthcoming data from the Cambridge Population Study shows this phenomenon (private communication from Mr. Alan Piper, Chief Archivist of the Durham Cathedral Muniments).

The priory's cloth purchases show a clear distinction between cloths for which social significance was the overriding factor in choosing what to purchase and utility cloths for which function and price were the only or major considerations. In the first category came outer clothing and certainly the livery garments provided by the priory to its officials, servants and dependents. Vestments also came under this heading, with all their liturgical significance and potential for defining and reinforcing a divinely-ordained hierarchy, as did certain furnishings such as the prior's expensive table linen. Utilitarian cloths, meanwhile, were used for undergarments and everyday clothing and for a variety of household and estate functions. In the following section, the utility cloths are looked at first. Hardyn, sackcloth and haircloth were bought in large quantities, although the functions for which these cloths were used are often unclear. The price of these latter goods was the most important factor in their purchase, and a high degree of elasticity of demand and responsiveness to price changes can be seen in the priory's purchases. Linens are an intermediate category, containing some relatively cheap, coarse cloths used for general household purposes and fitting the above pattern, but also some much more expensive textiles used for socially sensitive functions such as table-linen and vestments. Via these latter, the discussion then turns to the cloths bought with display or social differentiation in mind. The priory's purchases of vestments, garments and the priory's livery cloths are described, apparent factors in the choices made in these areas are discussed, and finally the social context is examined and comparisons with contemporary practise at other monastic and secular households are made.

Hardyn, Haircloth, Sackcloth, Canvas and Blanketing

The cheap, utility cloths which were bought in significant quantities by the priory were hardyn and sackcloth. In addition to these, haircloth occurs twelve times, canvas twice and blanketing once in these accounts. For most of these purchases no use for the cloth bought is specified, but occasional references both from the Durham material and the records of other similar houses make it clear that these cheap textiles were used for a variety of domestic purposes, ranging from household uses such as bedding through kitchen functions as rags, rough sieves and containers, to uses as building materials. For example, Battle Abbey bought linen and canvas in 1442/3 'for binding pipes in the running water system', and more canvas for the same purpose in both 1465/6 and 1478/9.¹⁷⁹ Again at Battle, in 1399/1400 the purchase of sackcloth and horsehides 'for sacks and other necessities in the bakehouse' is recorded.¹⁸⁰ At Selby Abbey, the granger purchased both sackcloth and cloth 'for making sieves' in 1404/5, whilst the kitchener purchased cloth for horses' girths and canvas 'for making sacks for the poulterer with in 1416/7.¹⁸¹ Sacks were almost certainly the use to which most of the sackcloth bought was put, and these were probably made up within the monastery, as the evidence from Selby suggests. The Durham bursar's necessary expenses frequently included payments for thread, and in 1464/5 this was specified to have been purchased 'for sewing sacks and other necessities'. Other uses specified for such cloths in the Durham accounts were 4 yards of hardyn purchased by the communar in 1508/9 which were described as being 'for his exchequer', and the bursar's purchase of 10 yards of bolting cloth (for use in refining flour) in 1464/5. The almoner's inventory from 1515/6

¹⁷⁹ Searle and Ross, eds., *Battle Abbey*, pp.136, 144, 150.

¹⁸⁰ *Ibid*, p.95.

included a number of cloth items which were probably made of the kinds of textiles under consideration here, such as girths, horsecloths and a number of blankets ('of which 8 are moderately good, and 4 are old').¹⁸²

None of these uses for such cloths would have involved them being in any sense on show, or having any impact on public perceptions of the priory, its status or its financial position. The sole example of these cheap cloths being used in a public way is the purchase of haircloth for use as an altar cloth. In 1446/7 the sacrist of Selby Abbey bought haircloth 'for the altar of St.Katherine and St. Cuthbert', whilst in 1436/7 the master of the infirmary at Durham also bought 'one haircloth for an altar'.¹⁸³ It would seem probable that these were intended for dressing the altar in penitential array for Lent, the one occasion on which austerity itself might be described as a perverse form of conspicuous consumption.

Canvas was bought only in 1465/6 and in 1466/7, and it is therefore surprising to see quite large quantities, 113 and 86 ells respectively, appearing in those years. The price in 1465 was 3.2d. per ell and in 1466 3.5d., but clearly no conclusions about the priory's responsiveness to canvas prices can be drawn from such a small amount of data. The fact that only two purchases of canvas occur in these accounts suggest that it was to some extent a speciality cloth, purchased only for specific purposes. In support of this, there is some external evidence to suggest that canvas may have been an imported cloth. Unlike the other cheap cloths discussed here, which are not mentioned in the surviving Newcastle customs accounts, canvas appears several times as an import into

¹⁸¹ Tillotson, *Monastery and Society*, pp.135, 167.

¹⁸² Fowler, *Account Rolls*, Vol.1, p.253.

¹⁸³ Tillotson, *Monastery and Society*, p. 223; Fowler, *Account Rolls*, Vol.1, p.274.

Newcastle¹⁸⁴. In addition, references to canvas in the Cely letters suggest that it was commonly bought in Calais rather than England, and in one case specify the purchase of Normandy canvas¹⁸⁵. It would seem likely that the priory bought canvas for a specific unrecorded purpose in 1465-6.

Similarly the accounts record only a single purchase of blanketing, made by the chamberlain in 1504/5. In this year he purchased 160 yards, 100 priced at 6.5d. per yard and 60 at 6d. per yard. The large quantity involved suggest that he may have been replacing blankets throughout the monastery; unfortunately, since only ten of the chamberlains' accounts for these years have survived it is not possible to deduce the lifespan of a medieval monks' blanket. Blanketing may have been used for some warm clothing as well as for blankets themselves, as is shown by two entries in the Selby Abbey accounts which give the uses for which this fabric was purchased: the keeper of the guest-house bought 12 ells in 1413/4 'for making blankets from', but in addition in 1441/2 the pittance and chamberlain bought a small amount 'for the slippers given to the Rector of Averham this year'.¹⁸⁶

Slightly more information has survived about haircloth, but again this was not a very common commodity and insufficient data exists for conclusions to be drawn about the priory's purchasing habits. Purchases are recorded in only twelve years out of those looked at here, and occur only in the bursars' accounts. A function is specified only once, when the 40 yards of haircloth bought by the bursar in 1478 were described as being 'for the malt-kiln'. The quantities purchased remained fairly stable over this time, averaging 47.1 yards per year. Prices too were stable, both the mean and the mode price being 4d. per ell and

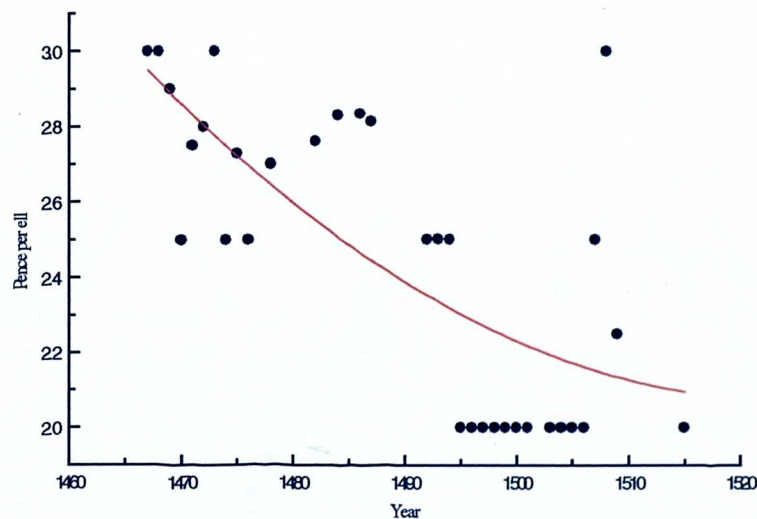
¹⁸⁴ Wade, *Customs Accounts*, pp. 19, 22-6, 32, 56-8, 128, 231, 267 and 271.

¹⁸⁵ A.Hanham, ed., *The Cely Letters 1472-1488* (Early English Text Society, 273, 1975), p.125.

the price only varying from this figure on four out of the twelve occasions on which haircloth was bought.

Of all these utility cloths, the most significant in terms of the amount bought by the priory was hardyn. This was a coarse fabric made from the hards of flax or hemp; that is, from the woodier parts of the fibres, otherwise discarded after being combed out to leave the finer fibres for making linen. Hardyn was extremely cheap, and became even cheaper over this period, the price per yard falling from 3d. to 2½d. between 1467 and 1492, remaining at 2½d. until 1494, and from 1495 onwards becoming a steady 2d. per ell, although with some fluctuations after 1507.¹⁸⁷ This dramatic fall in price by a third in only thirty years is shown on the following graph (fig. 33).

Fig. 33: Prices paid by the priory for hardyn, with best-fit line, 1460-1520

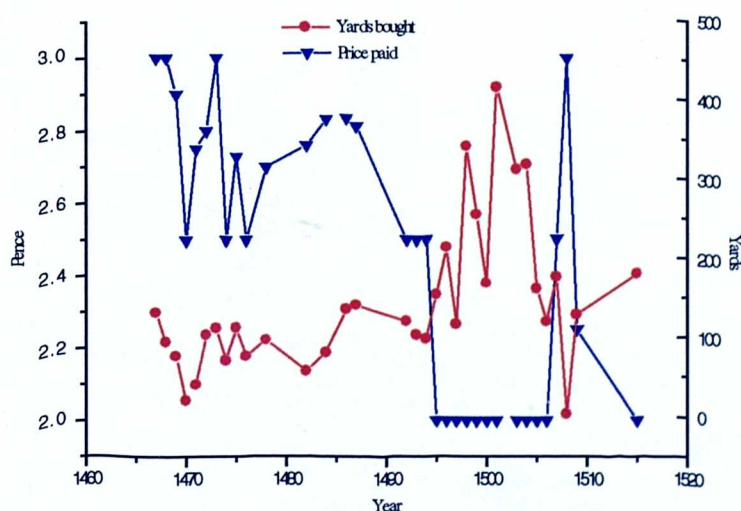


¹⁸⁶ Tillotson, *Monastery and Society*, pp.253, 111.

¹⁸⁷ The only exceptions to the 2d. price after 149/6 came in 1507/8, when the bursar bought 16 out of 177 ells at the higher price of 3d.; in 1508/9, when the communar's four ells cost 3d. per ell, and in 1509/10, when the bursar paid 2.5d. for just under half his purchases of hardyn.

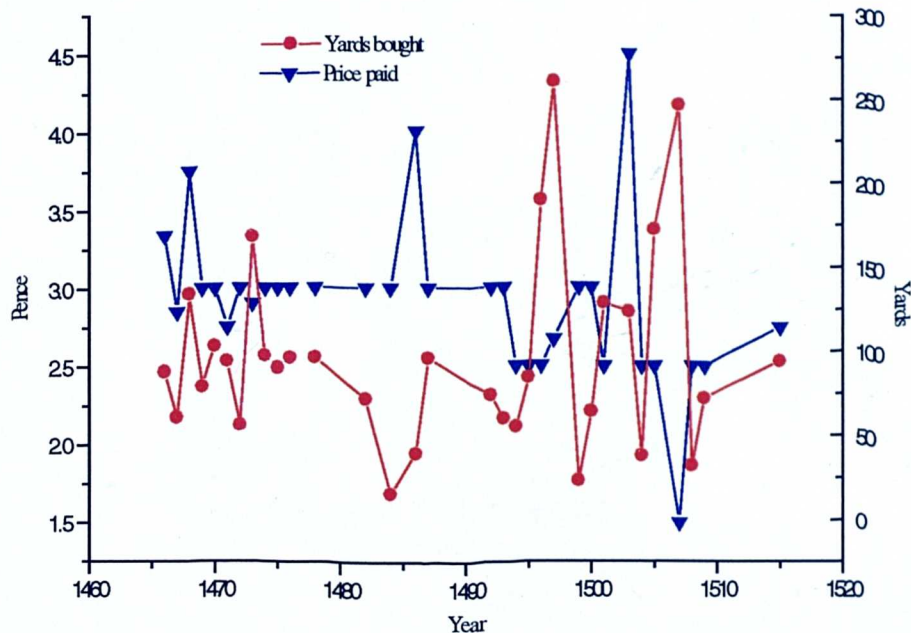
Hardyn was almost exclusively bought by the bursar, and this together with its cheapness and coarseness suggests that it was mainly used for menial household and estate purposes. The only other purchases to be found in these accounts are in 1486, when the sacrist's church expenses included eight ells of hardyn, and in 1508, when the communar bought four ells for his exchequer as already noted. The bursar bought relatively large quantities of this cheapest of textiles, an average of 148.6 ells per year. However, this average conceals the fact that the amount bought was much lower towards the beginning, and higher in the later years of this period. Split by decade, this can clearly be seen; the average bought was 86.4 ells in the 1460s and 1470s, 102.4 in the 1480s, 176.3 in the 1490s and 220.8 after 1500. The priory's purchases of hardyn show a clear correlation with the changing price, suggesting that the price being charged was the main factor in the choice of hardyn as a material, and in the decision of how much of it to buy in a given year (see fig. 34).

Fig. 34: Hardyn prices and the amount bought by the bursar, 1460-1520



Sackcloth, the other of these miscellaneous cloths of which substantial purchases were made, appears only in the bursars' accounts where an average purchase of 96.9 ells per year is recorded. There is no marked upwards trend in the volume of sackcloth bought, as occurs for hardyn, though prices again can be seen to have dropped over the period, from between 2.75d. and 3.85d. per ell in the 1460s, to a mode price of 3d. up to 1493, and to a mix of 2.5d. and 3d., weighted towards the lower of the two, thereafter. The drop is less dramatic than for hardyn, and so it is perhaps unsurprising that the correlation between prices and purchases is not so clearly defined here. Indeed, the two seem often to have moved together, suggesting that the priory's demand for sackcloth was relatively inelastic and might even have been a factor in setting the price (although the limited quantities bought by the priory make this unlikely). However, there were some years in which the price changed a great deal and does appear to have impacted upon the priory's purchasing decisions. When the price rose to 4d. from 3d. in 1486/7 the amount bought dropped considerably, although it should be noted that no noticeable reduction in the priory's purchases occurred in 1503/4, when sackcloth was at 4½d. per yard, its most expensive in this period. Conversely, in 1507/8 the price that the bursar paid for sackcloth dipped briefly to 2d., and in that year the quantity bought by him was abnormally high, at 246½ yards. Although this was not the highest purchase seen in this period, it seems probable that the low price in that year prompted some stockpiling to take place, an interpretation supported by the fact that the volumes bought by the bursar in the two years following this large purchase were unusually low, 32 yards in 1508/9 and 72 in 1509/10.

Fig. 34: The prices paid for sackcloth
and the amount bought by the bursar, 1460-1520



Linen

In an average year, a total of 495.6 ells of linen were purchased by the priory, at a wide variety of prices and for a variety of uses. The sacrist bought an average of 28.6 ells per year, the bursar 148.1 and the chamberlain 318.9 ells. Linen textiles was a very broad category in the middle ages which included both relatively cheap domestically produced cloths and the rather more expensive Flemish and Holland linens, and both types were bought by Durham Priory in this period.¹⁸⁸ Strictly speaking, the origin of much of the linen bought by the priory is unclear; that is to say, with the exceptions of Flemish cloth and Holland

¹⁸⁸ The Durham accounts do not tend to specify that Holland and Flemish cloths were types of linen, but it is clear that this was in fact the case; in 1471/2 the bursar accounted for the purchase of 54 ells of linen cloth 'called flemysshcloth'. See also Hanham, *Cely Letters*, p.321, and Wade, *Customs Accounts*, pp. 55, 193.

cloth, the provenance of the linens bought by the various obedientiaries is not recorded in their accounts. However, it seems extremely probable that the cheaper cloths were made locally. Circumstantial evidence to this effect comes in the form of familiar local suppliers' names and the absence in the accounts of transport costs for these fabrics. Certainly there was a domestic linen industry in England throughout the middle ages, especially concentrated in the north and east of the country – in Scotland, Yorkshire, Lancashire and East Anglia.¹⁸⁹ It is also known from archaeological evidence that flax was grown in the Durham and Newcastle areas.¹⁹⁰

As their name implies, however, Holland and Flemish cloths were imports from the Low Countries, and there are several examples of the import of Holland cloth (although not of Flemish cloth) into Newcastle in the surviving customs accounts¹⁹¹. The main supplier of these cloths to the priory was William Cornforth, a notable supplier of other imported goods to the priory, especially spices.¹⁹² In addition, a great many small quantities of linen (not otherwise described) were also imported in this period, and on one occasion for which records have survived were exported too.¹⁹³ It cannot therefore be assumed that all linen not otherwise described was in fact of domestic manufacture.

¹⁸⁹ N.Evans, *The East Anglian Linen Industry: Rural Industry and Local Economy, 1500-1850* (Pasold Studies in Textile History, 5, 1985), p.1.

¹⁹⁰ J.P.Huntley and S.Stallibrass, *Plant and Vertebrae Remains from Archaeological Sites in Northern England: Data Reviews and Future Directions* (Architectural and Archaeological Society of Durham and Northumberland Research Report, 4, 1995), pp.70-1.

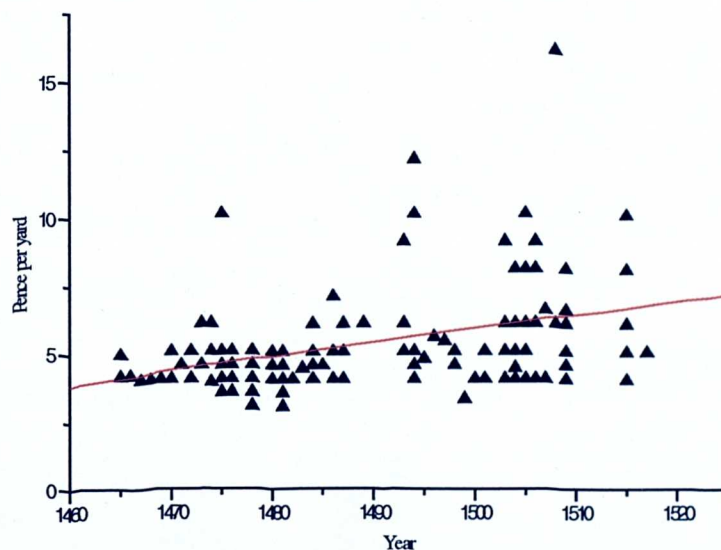
¹⁹¹ Wade, *Customs Accounts*, pp. 55, 193, 262, 266, 270-1, 273-4. On some of these occasions the cloth was further described as being 'coarse holland cloth' (pp. 262, 266 and 271).

¹⁹² Threlfall-Holmes, 'Provisioning', pp. 95-6.

¹⁹³ Wade, *Customs Accounts*. For linen imports, see pp. 20, 22, 24-6, 55-7, 60, 118, 120, 12, 124, 127, 133, 141, 145, 147-8, 150, 182, 189-90, 194, 196, 160-1. In addition, 'coarse' linen was imported on three occasions: pp. 28, 238 and 259. Linen was exported from Newcastle on the 4th May 1457, pp. 37-8.

The linens bought by the priory varied in price a great deal, both between years and within a single year, so a more meaningful picture of the prices paid by the priory may be gained from a scatter diagram which shows all the prices paid by the priory for linen in each year, rather than from a consideration of the average price paid each year. As the diagram (fig. 36) demonstrates, linen cost the priory between 3d. and 1s.4d. per ell, but the overwhelming majority of consignments were in the 4d. to 6d. per ell range, which might therefore be called the 'normal' price.

Fig. 36: Prices paid by the priory for linen, 1464-1520



The best-fit line on the diagram shows the a slight upwards trend in prices over this period, similar to that already seen for livery cloths. The highest price paid, of 1s.4d. per ell, applied only to the 1508 purchase noted above, and the 12d. paid in 1494 applied only to a single purchase, this time of only 3 ells, 'for the lord prior'. Other than these, the highest price paid for linen was 10d. per ell.

Even this was rare: it applied only to two and a half of the 330.5 ells of linen bought by the chamberlain in 1475-6, to 30 of the 111 ells bought by the bursar in 1494, and to 44 of the bursar's 172 ells for 1515. A price of 9d. per ell was equally unusual, again occurring only three times - in 1493, 1503 and 1506 (all minor consignments in the bursar's accounts). The 30 ells of linen bought by the bursar in 1494 are particularly interesting in that they were probably, and unusually, bought from a named London merchant, a Thomas Ayer.

It would seem likely that these much more expensive linens were in some way physically different from the normally priced type - probably of heavier weight, or perhaps with an elaborate weave pattern. It was certainly the case that the only named linens to appear in these accounts, Holland and Flemish cloths, were amongst the higher priced linens bought by the priory, costing between 7d. and 10d. per ell. The relatively narrow price-band in which they appear confirms that these names were used of similar cloths and were used consistently in the first two decades looked at here. Both appear only occasionally and only in the bursars' accounts, and in relatively small quantities - the average for both types together was 40.4 ells per year, and it should be noted that this is an average for those years in which they were mentioned (seventeen), rather than an average over this period (of thirty-eight surviving bursars' accounts), which would produce the much lower figure of 18.1 ells per year. Both types (it is not clear what, if any, features distinguished the two) cost an average of 8d. per ell, with the range being from 7d. to 10d. per ell.

It is also interesting to note that named Flemish and Holland cloths are mentioned only in the first part of this period, from 1465 to 1487. However, in this period they are virtually the only cloths bought in their price range, whereas

after 1487 several mentions occur of unspecified linens costing similar amounts per ell. It seems likely, therefore, that the change was one of scribal habit or common nomenclature rather than reflecting a real change in the type or origin of the cloth bought by the priory.

Linen had several uses in the medieval household, monastic or otherwise. Archaeological evidence from other medieval sites has found that linen was being used for a wide variety of purposes, including underwear, bedlinen, headcoverings, aprons, burial cloths, toilet paper and (in the case of raised weaves) towels.¹⁹⁴ Unfortunately, the intended uses for the linen purchased by the priory are only rarely stated in these accounts, but other uses may be surmised. Some was used for ceremonial purposes in church, being made into ecclesiastical garments such as albs and amices, and this is discussed in the section on vestments which follows. Table linen is sometimes mentioned: on one occasion four ells of linen purchased at by the bursar at 4d. the ell were made up into 2 tablecloths 'for the table and dish in front of the kitchen window'.¹⁹⁵ The following year 15½ ells of linen at the very high price of 1s.4d. the ell were bought 'for napkins and long handtowels for the lord prior's table'.¹⁹⁶ It is unsurprising that table-linen for the prior represented by far the most expensive linen purchased by the priory in this period, as medieval table-linen could be extremely elaborate in design and costly in execution. That bought for the prior was by no means the most expensive available, or out of place on the table of a

¹⁹⁴ E.Crowfoot, F.Pritchard and K.Staniland, *Textiles and Clothing c.1150 - c.1450: Medieval Finds from Excavations in London* (London, 1992), pp.80-81. This work goes on to point out that linen was made in a wide range of patterns in London, as the 1456 gild regulations demonstrate in a list of different types which includes 'crossewerk', 'cross diamounde', 'smale knottes' and 'damask knottes with chapelettes'. The differing degrees of complexity, and perhaps also different weave densities and fabric weights, involved in these different patterns may be a factor in explaining the wide price range found for linens in the priory accounts.

¹⁹⁵ DCM Bursar's account, ('necessary expenses' section), 1507/8.

¹⁹⁶ DCM Bursar's account, ('necessary expenses' section), 1508/9.

noble of his standing.¹⁹⁷ On the other hand, the extremely wide price-range for such things is shown by the purchase by the Durham cell at Monk Wearmouth in 1468/9 of 60 ells of linen ‘for sheets, napkins and long handtowels’, at only 3d. the ell.¹⁹⁸

Another example of the destination – though not the precise use - of some of the priory’s linen comes in the communar’s accounts. On three occasions, in 1489/90, 1508/9 and 1517/8, the communar purchased small amounts of linen for his exchequer. It is not clear what the purpose of this cloth was, but it might perhaps have been for the periodic replacement of the exchequer cloths, marked out for the accounting procedure. The communar was certainly not a regular cloth purchaser, the only other mention of any cloth in his accounts being 3s.4d.-worth of serge bought in 1499/1500, also for the exchequer.¹⁹⁹

These stated uses, however, account for only a small amount of the nearly 500 ells of linen bought by the priory in an average year. The uses to which the remainder was put can only be guessed at from the obedientiary responsible for purchasing it, and from occasional entries in similar accounts from other monasteries. All of the small amounts of linen purchased by the communar and sacrist are accounted for by the above: the bursar and chamberlain, who bought the bulk are however largely unaccounted for. The large amounts of linen bought by the chamberlain were probably, given his other responsibilities, for the personal use of the monks both as bedlinen and for undergarments. At Selby Abbey, the Chamberlain paid cash sums to the monks for them to provide clothes

¹⁹⁷ D.M.Mitchell, ‘ “By Your Leave my Masters”: British Taste in Table Linen in the Fifteenth and Sixteenth Centuries’, *Textile History*, 20 (1989), pp.49-77.

¹⁹⁸ J.Raine, ed., *The Inventories and Account Rolls of the Benedictine Houses or Cells of Jarrow and Monk-Wearmouth in the County of Durham* (Surtees Society, 29, 1854), p.211.

¹⁹⁹ DCM Communars’ accounts, (‘necessary expenses’ sections) 1489/90, 1499/1500, 1508/9, 1517/8.

for themselves by 1441/2, but still purchased some small amounts of linen ‘for towels to be hung in the cloister’.²⁰⁰ It seems likely, from his remit and from the assortment of other cheap textiles which appear in his accounts alongside linen, that the linen bought by the bursar was destined for a hundred and one miscellaneous domestic applications. Examples might be uses in the kitchen, the brewhouse and the bakehouse such as dishcloths, cheese-cloths, cloths for straining the mash for beer and bolting-cloths for sieving flour. The more expensive linens that he brought may have been used for towels, every-day table-cloths, and so on: the 1512 house-hold book of Henry Percy, fifth Earl of Northumberland sets out that 70 ells of linen, at 8d. the ell, are to be bought for his household each year, to be used for such things as table-cloths for the knight’s table in the Great Hall, hand towels for the Earl himself, napkins, cupboard cloths, pantry towels and dresser cloths for the kitchen.²⁰¹

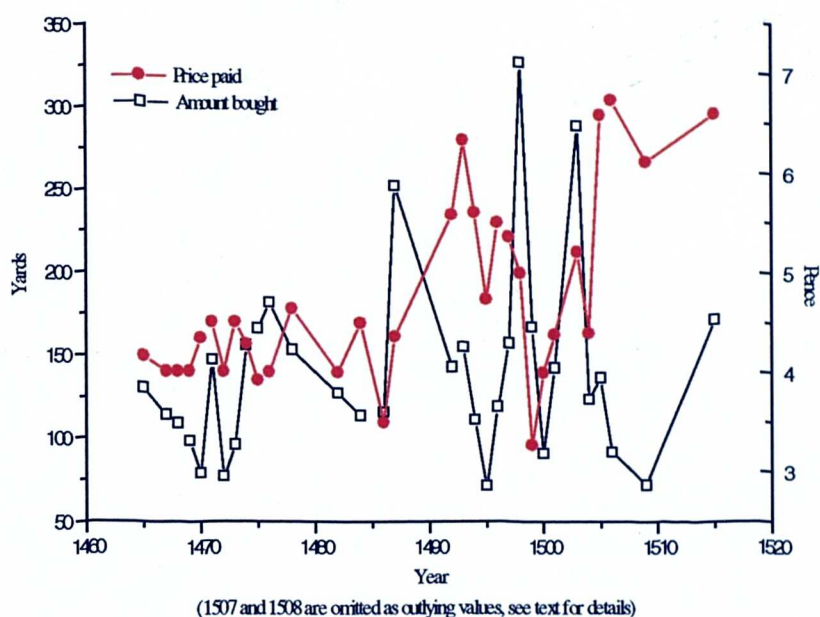
Neither the bursar nor the chamberlain were noticeably price-responsive in their linen purchases. It is hard to be sure about this since the price range at which linens were bought was so wide, and the amounts purchased also varied a great deal from year, but the following graphs show that there is no visible pattern of purchasing which correlates to price changes. These graphs show the average price paid by each obedientiary for the linen which he bought. Every year for which the relevant accounts survive are included with the exception of the bursar’s accounts for 1507/8 and 1508/9. These have been omitted as they contain outlying values, the inclusion of which makes the scale much smaller and thus the graphs harder to interpret. In 1507/8, the bursar bought an unusually large amount of linen, 496 yards, at a price which was about average at 5¼d. per

²⁰⁰ Tillotson, *Monastery and Society*, p.111.

²⁰¹ Percy, *Regulations and Establishment*, p.16.

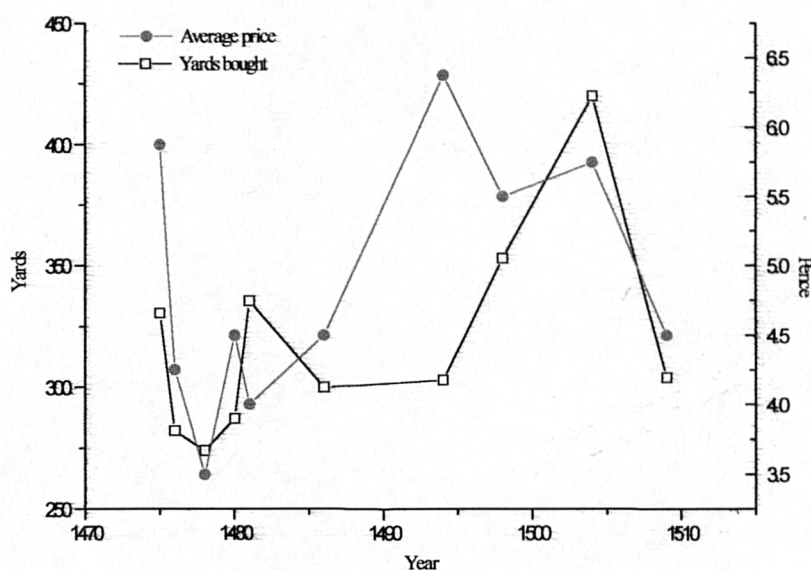
yard. In 1508/9, the average price paid by the bursar was much higher than usual due to the inclusion of the prior's table-linen at 1s.4d. per yard, already discussed.

Fig. 37: Prices paid for linen and amount bought by the bursar, 1460-1520



The graph of the bursars' linen purchasing above (fig. 37) shows the amount bought and the price paid in any one year apparently moving independently of each other. In some years, notably 1492/3 and 1498/9, upward movements in price do co-exist with downward movements in the quantity purchased, or vice versa. However other years, such as 1492-6, show the reverse pattern, with price movements and the amount purchased by the bursar apparently moving together. The graph of the chamberlains' linen purchases shows a similar picture (fig. 38).

Fig. 38: Prices paid for linen and amount bought by the chamberlain, 1460-1520



Overall, it does not appear that the absolute price of linen was an important factor in the purchasing decisions of the bursar or chamberlain, though it is of course likely that the relative prices charged would have been taken into consideration when choosing suppliers or even types of linen for a particular task. Linen, therefore, would appear to have occupied a kind of half-way house between utility cloths and the 'display' cloths to which this discussion will now turn.

Vestments

More than any other cloth or clothing bought by the priory, vestments were symbolic and considerations of display and precedent were undoubtedly the main factors in choosing them. Whether the intention was to glorify God or to emphasise the medieval social and ecclesiastical hierarchy, or whether the two were indistinguishable in the minds of the monks, the result was the same; the

most spectacular and costly textiles to enter the priory were those destined for use in the church and chapels under the monastery's control. However, perhaps because of their cost they were only rarely bought, and thus only a few references to such garments occur in the priory archives. Those that do exist, however, suggest that whilst the priory had no intention of skimping on their ecclesiastical splendour, they nevertheless saw no reason to be unnecessarily extravagant. They wanted the best, but they also wanted to buy it at the best price possible, and once bought they wanted it to last.

The extravagant nature of the fabrics used for vestments, and also the priory's continued concern for price and – if not economy, at least budgeting – can be seen in a letter from the prior of Durham to his trusted steward, Robert Rodes, who was in London on business in May 1456. The prior asks him to provide six copes of blue velvet, and to ornament them with gold flowers as in the sample he sent; also to provide orphreys with embroidery to go with the said copes, at the price of 8 marks each as he quoted to the prior in a previous letter. Further, he is asked to provide an additional six copes of the same blue velvet and to have these latter embroidered with smaller and fewer gold flowers. This is presumably intended as an economy, as the prior goes on to specify that Robert should expect to pay 6d., or 7d. if necessary, per flower. The total sum available for spending on all these things is £103.6s.8d., although the prior is clearly expecting there to be some change, as he requests that 5 marks be paid to a third party out of this, and that anything left be spent on providing additional vestments.²⁰² Another letter from the same year both shows this concern for price and the importance of precedent in the provision and selection of cloth for

²⁰² DCM Reg.Parv.III, 79v.-80r.

vestments as for liveries: the prior discusses the prevailing price of cloth of gold at some length, but goes on to ask that cloth might be supplied at qualities and prices most closely approximating those that the priory had had before.²⁰³

Such expenditure was not a regular occurrence, however. Apart from these letters very few references to the purchase of vestments survive, and none from this period. Fowler records two instances from the beginning of the fourteenth century: in 1401/2 the bursar's account recorded the purchase of a white vestment for the prior's chapel, at a cost of £2.0s.0d., whilst in 1416/7 the almoner spent £2.0s.10d. on mending vestments and service books and purchasing a new vestment for the chapel at Helton.²⁰⁴ The few surviving inventories for the priory do not suggest that a large collection of vestments was kept. The feretrar's inventory for 1441/2 shows that he was in possession of only four whole sets of vestments. He lists a whole set of green vestments, together with curtains, cloth to surround the altar, an altar-cloth and a frontal; a red vestment with matching altar-cloth and frontal; an old green vestment with altar-cloth and frontal, and a grey and red velvet vestment with 2 altar-cloths and a frontal. The sacrists' inventory for 1404/5 includes a pair of chests for vestments, a white mitre and a crozier (with a head of ebony inlaid with precious stones), 13 brocade cloths (possibly processional canopies), 10 blue cloths with arms, 2 old cloths and a vestment for St. Benedict's altar, and a few other individual cloths, including '2 new cloths for Corpus Christi with the remains of a brocade for making orphreys'.²⁰⁵

The only references to vestments in the sacrist's and other obedientiaries' accounts for this period are for mending and making up rather than purchasing

²⁰³ DCM Reg.Parv.III, 88v.

²⁰⁴ Fowler, *Account Rolls*, Vol.3, p.604, Vol.1, p.225.

new vestments, and this fits with the presence in these inventories of old vestments and of cloths for making vestments. The sacrist paid 13s.8d. in 1472/3 for making five vestments, and a further 12d. for dying linen to line them with. No cloth for these is purchased in that year; but since only a few of the sacrists' accounts survive for this period it may have been recorded in an account now lost, or the cloth might have been old and only now being made up. Other than that, the only references to vestments in the obediary accounts for this period are to linen accessories, such as albs and amices, rather than to the elaborate and expensive vestments themselves. These garments were also mended when required; in 1465/6 the purchase of linen is immediately followed by an expenditure of 2s.11d. 'for making albs and amices and mending an alb', and mending is also recorded in 1473/4.

The sacrist's accounts have only survived for nine years, but in each of these except that for 1487/8 the purchase of linen is recorded, often specified to have been 'for albs and other necessaries'. The quantities of linen purchased by the sacrist varied a great deal: 8 ells in 1486/7, 14 ells in 1484/5, 15 ells in 1485/6, 20 ells in each of 1472/3 and 1474/5, 44 ells in 1473/4, 45 ells in 1483/4 and 63 ells in 1465/6. The widely varying amounts of linen which were bought by the sacrist in different years make it clear that the provision of such garments and accessories was not a regular, yearly charge but something which was done as required. Old garments were clearly worn for as long as they remained in good condition, and repaired when necessary. This fact makes it abundantly plain that whilst the priory would spend whatever was necessary on keeping up appearances, they were not in the business of being unnecessarily extravagant.

²⁰⁵ Fowler, *Account Rolls*, Vol.2, pp.394-5.

God and his church demanded the best, but they would drive a hard bargain for the cloth of gold they wanted, and would look after it when they got it.

Clothing

The standard clothing requirements of a monk were quite limited, consisting of a habit, a shirt (*staminum*), three or four under-shirts (*femoralia*) and perhaps an outer garment (*vestis*) for wear whilst riding.²⁰⁶ These basic needs were seen to by the chamberlain, who purchased large quantities of white and black serge and a small amount of woollen cloth for the monks' habits. Little information is given about these cloths in the accounts, and since the chamberlains' accounts have survived for only ten years in this period it is not possible to draw any conclusions about the price responsiveness or otherwise of his purchases of these cloths, although one would expect that, like the linens looked at above, purchases would have been largely impervious to any but very dramatic changes in supply or price. The chamberlains' accounts contain reasonably large quantities of black and white serge, which were almost certainly intended to clothe the majority of the monks resident in the priory. The white serge, of which the chamberlain bought an average 93.2 ells per year, at an average price of 7.7d. per ell, was specified in the accounts to have been for shirts. No intended use is mentioned in connection with the average 152.9 ells of black serge that were bought each year at an average price of 10.3d. per ell:

²⁰⁶ J.Greatrex, ed., *Account Rolls of the Obedientiaries of Peterborough* (Northamptonshire Record Society, 33, 1984), pp.28, 33. At Peterborough each monk was issued with all of this clothing except for the habit, for which they apparently received a cash payment. For the regulations on the *vestis* see W.A.Pantin, ed., *Documents Illustrating the Activities of the General and Provincial Chapters of the English Black Monks, 1215-1540* (Camden Society, 3rd. Ser., XLV, XLVII and LIV, 1931-1937), Vol.2, pp.66-7, 124.

however, the colour, quantity and lack of alternatives elsewhere in the accounts all strongly imply that this material formed the monks' habits.

In addition to this black serge, the chamberlain also bought a certain quantity of woollen cloth each year. This came in both wide and narrow varieties, as discussed in the measures section above; here, total ells per year of standard (wide) cloth have been calculated by taking narrow cloth ells to be equivalent to half of wide cloth ells. The amounts of woollen cloth that the chamberlain purchased in each year fluctuated widely, between 28.5 ells in 1509 and 153 ells in 1504, but the average amount bought each year was the equivalent of 67.4 wide cloth ells. It seems probable that whilst the black serge provided the monks' habits, the woollen cloth purchased by the chamberlain provided outer garments to those monks not already provided with these garments by the bursar's livery distribution. Other miscellaneous items of clothing may also have been provided for by the woollen cloth: in 1417/8, the chamberlain of Abingdon Abbey noted the purchase of woollen cloth worth £1.8s.6d. 'for the feet' – presumably for socks.²⁰⁷

The average number of monks present in the monastery, so far as can be ascertained, was 66, so an average of 152.9 ells of black serge to provide habits would give 2.3 ells to each monk, (including the nine obedientiaries).²⁰⁸ This figure seems realistic enough: it can be compared with the 27 ells of woollen cloth purchased by the bursar in most years for the outer robes of the priory's nine main obedientiaries, which works out at 3 ells each.

These quantities of cloth per gown can be compared with a contemporary benchmark in the form of the maximum permitted lengths of cloth which were

²⁰⁷ Kirk, *Abingdon Abbey*, p.86.

²⁰⁸ For the population of the priory, see chapter one, pp.13-6.

specified for the lower ranks in the 1510 sumptuary law. Men below the rank of Knight (with certain exceptions, including 'spiritual men') were not permitted to 'use any more cloth in any long gown than four broad yards, and in a riding gown or coat above three yards', whilst 'no serving man under the degree of a gentleman' was allowed to 'use or wear any gown or coat or such like apparell of more cloth than two broad yards and a half in a short gown and three broad yards in a long gown'.²⁰⁹ It would seem from this that an average of around three yards of broadcloth may be taken as an effective minimum for a full-length garment, and that therefore the priory was by no means extravagant in the clothing of its monks. The prior stood out alone in having an outer gown made with six ells of the highest quality material purchased by the bursar – the next in rank to him, the main obedientiaries, had only three ells each in theirs, the same as was contained in the habits of the remaining monks and the maximum permitted by the sumptuary laws (from which they were exempted, as spirituals) to knights in short gowns or to servants in long.

For servants the picture is slightly less clear since the number of servants for whom the bursars' annual livery purchases were intended was not stated in his accounts. For 1509/10 and 1510/1, however, lists of the livery distributed to the priory's dependants survive in the bursar's notebook or household book. That for 1509/10 has bracketed together to one side of the page a note to the effect that the amount of cloth involved in these liveries was 3 ells per gentlemen, and 5 ells per two valets or grooms, i.e. 2.5 ells each. There was clearly some variation in actual practise, as certain individual entries differ from this standard. For example, the cellarer's valet received 3 ells, whilst the sacrist's 6 valets received

²⁰⁹Williams, *English Historical Documents*, pp.250-1.

the standard 15 ells between them, and the chamberlain's servant was given 3.5 ells. Most of the servants listed with individual amounts of cloth noted received 3 ells, although quantities of 3.25, 3.5, and 3.75 ells were also recorded. In other words, the priory's servants were receiving quantities of livery cloth identical to those received by the monks themselves, albeit of lower quality.

These cloths were bought by the piece, and were presumably made up into garments on the monastic premises, although this activity has left little trace in the accounts.²¹⁰ The other purchases of apparel which occur in these accounts are those in which 'garments' are purchased, usually for servants or household members, by various obedientiaries. Whilst it is possible that these transactions may have been simply customary, in other words may in fact represent cash payments rather than the purchase of actual made-up garments, the fluctuations in the prices paid by the same obedientiaries from year to year make this unlikely. For example, the sacrists' accounts survive for the three consecutive years from 1472/3 to 1474/5, and in these years he paid 7s.½d., 8s.2d. and 5s.6d. respectively for valet's garments. Were these simply customary payments one would expect to see much more standardised sums appearing.

Whole garments were bought on a regular basis by the almoner and the sacrist, and on one occasion in this period by the bursar.²¹¹ The expenditure section of the almoners' accounts begins with a wardrobe sub-section, the contents of which varied little over this period, comprising two furred tunics, for

²¹⁰ In the thirteenth century, the chamberlain purchased cloth which was dyed black, cut and made up in the monastery, as described in M.R.Foster, 'Durham Cathedral Priory 1229-1333: Aspects of the Ecclesiastical History and Interests of the Monastic Community' (unpublished PhD thesis, University of Cambridge, 1979), p.74. However, no traces of such activity are to be found in the chamberlains' accounts for this period.

²¹¹ The only example of such a purchase in the bursar's accounts comes in 1472/3, when the last entry in the wardrobe section of the bursar's account reads 'Paid to Jacob Bonelet for 2 garments for him and his servant, 13s.4d.'. No explanation is given in the account of the reason behind this unusual entry.

the almoner himself '*et socio suo*' (20s.); a furred garment for the master of the grammar school (11s., including 11d. worth of fur); and a garment each for the almoner's valet (6s.4d.), coachman (*custos cove*) (6s.4d.) and groom (*custos equo(rum)*) (5s.0d.). The sacrist's list of retainers was somewhat longer: his necessary expense account regularly included the cost of garments for three unspecified servants at an average cost of 6s.6d. each, and for between five and seven (though usually six) valets, at an average cost of 4s.9d. each. The accounts do not include any further detail about these garments, so the amount or quality of the cloth that they contained cannot be ascertained.

The use of garments as a social symbol – as payment, badge, creator of bonds of loyalty and to define social status – can be seen at its most developed in the priory's use of livery, which alone accounted for around £40 of the £71 spent on textiles by the priory in an average year. Each year, the bursar spent this sum on black woollen cloth and black fur for smart new outer garments for the prior and the nine chief obedientiaries, on coloured cloth with white fur for the gentlemen, and on coloured cloth alone for the valets and grooms who were on the priory's pay-roll. In all, around 350 ells of livery cloths were bought each year. The types of cloth deemed suitable for the wear of each degree of person within the monastery appears to have been very highly stratified, with the five grades of wearer being set out one by one in the accounts and different cloth bought for each.

The livery cloths were accounted for by the bursar, and their importance and value is reflected in the fact that they were the subject of the first subdivision of his expenditure accounts. The list of purchases within this section followed a rigid format, which was only rarely deviated from. First, the cloth bought for the

gowns of the nine major obedientiaries was accounted for, followed by that for the prior's gown. Next came cloth for gentleman servants, valets and finally grooms. For each of these, a different value of cloth was purchased. The gentleman and valet categories were normally specified to cover both clerical and lay servants, and although no distinction was made between them in terms of cloth value, it was occasionally the case that different patterns of cloth were bought for the two. The accounts went on to note the purchase of black furs for the monk officials' gowns, then for the prior's gown, and then white furs for the gentlemen servants' gowns. Hoods for the prior's steward and chaplain are also recorded, but are not discussed here as they remained standard throughout this period, at a cost of 6s.8d. each with no further details given.

Occasionally there were slight variations to this pattern. In four years, the purchases of cloth and fur for the nine main obedientiaries of the priory (excluding the prior) were replaced by what appears to have been a cash payment to the individuals involved.²¹² In these years the entries for cloth and black fur for the use of monk officials do not occur in the bursar's wardrobe accounts, being replaced with a single entry recording the payment to the nine monks involved of 10s.0d. each. This payment is specified in the 1486/7 and 1487/8 accounts to be for their 'kirtils with fur', whilst in 1498/9 the usual amount of black furs were bought in addition to this payment. It should be noted that this payment of 10s.0d. was very slightly less than the combined value of the cloth and fur that were more commonly bought. The usual purchase of 1 cloth and 3 ells of cloth for the nine monks involved gave each an average of 3 ells, at a usual cost of 33.33d. per ell, and the 13½ furs gave each monk 1½, at a cost of

²¹² DCM Bursars' accounts, 1486/7, 1487/8, 1497/8 and 1498/9.

18d. each. The total value of cloth and fur bought separately was therefore in the region of 10s.7½d., 6% more than the cash alternative. Tailoring costs are not mentioned anywhere in these accounts in connection with these livery cloths, but if these accounted for the difference one would expect the cost of a whole garment to be higher than that of its constituent parts, not the other way. It may be that a cash alternative was considered desirable by the obedientiaries and so slightly less could be given; however, if that were the case it would be expected that this commutation would be common practice rather than only occurring in four of the years looked at here. It does however appear to have been the case that the obedientiaries concerned received garments in these years which were equivalent to those allocated to them in years when the accounts record the purchase of cloth directly by the bursar. This is implied by the entries in the income section of the bursars' accounts which note the money received from the sale of the obedientiaries' garments from the previous year; no difference can be seen in the income received or the way in which the garments are described in the years following those in which direct payments are recorded in the accounts.²¹³

Only very occasionally do the accounts give any more detail about the cloths purchased than a brief indication of their colour ('black' for the monastics and 'coloured' for the servants) and the social status of their intended wearers. It is not clear what colour the 'coloured' cloths usually were, nor is it possible to tell whether there was in fact a standard shade or whether different colours were used in different years. More detail on colour occurs only in a single account in this period, that for 1499-1500, in which the entry for gentlemens' cloth includes

²¹³DCM Bursars' accounts, e.g. those for 1486/7, 1487/8 and 1488/9.

the words *coloris tawnys*, and that for grooms' cloth *eiusdem coloris*. Both these phrases are crossed out in the account, but whether this was because they were erroneous, or considered extraneous, it is not possible to tell. The only other references to the colours of the livery cloths come from just outside this period; in 1446/7 the bursar bought green cloth for the servants' liveries and supplemented this with smaller amounts of red cloth, whilst in 1449/50 the colour of the servants' cloth was described as 'red medley'.

The other non-standard term that occurs in connection with these livery cloths is *stragulati*, striped cloths. This description occurs in two years, 1467/8 and 1473/4. In both cases a distinction is made between clerical and lay gentlemen and valets. In every other year the clerical and lay are not distinguished, but in these two years extra entries occur. 'Coloured cloth' is bought as usual for clerical and lay gentlemen at one value and clerical and lay valets at another value, but in addition 'striped cloth' is bought at the same two values for the lay gentlemen and the lay valets only. The clerical/lay distinction is nowhere made in the case of grooms, but in these two years the cloth purchased for their use is a combination of the usual 'coloured' cloth and striped. These striped cloths appear to have been at least partially supplementary to, rather than part of, the usual cloth requirements. Between three and four broadcloths were usually purchased for the gentlemen each year. In 1467/8, three cloths and two ells were bought, with the addition of a further three and a half striped cloths, whilst in 1473/4 three and a half cloths each of coloured and striped cloths were bought. Similarly, the usual six cloths for valets became five striped in addition to three and a half (1467) or four (1473) normal cloths. To a

lesser extent the same applied to the cloth bought for the grooms: the six cloths usually purchased became three normal and four striped in both these years.

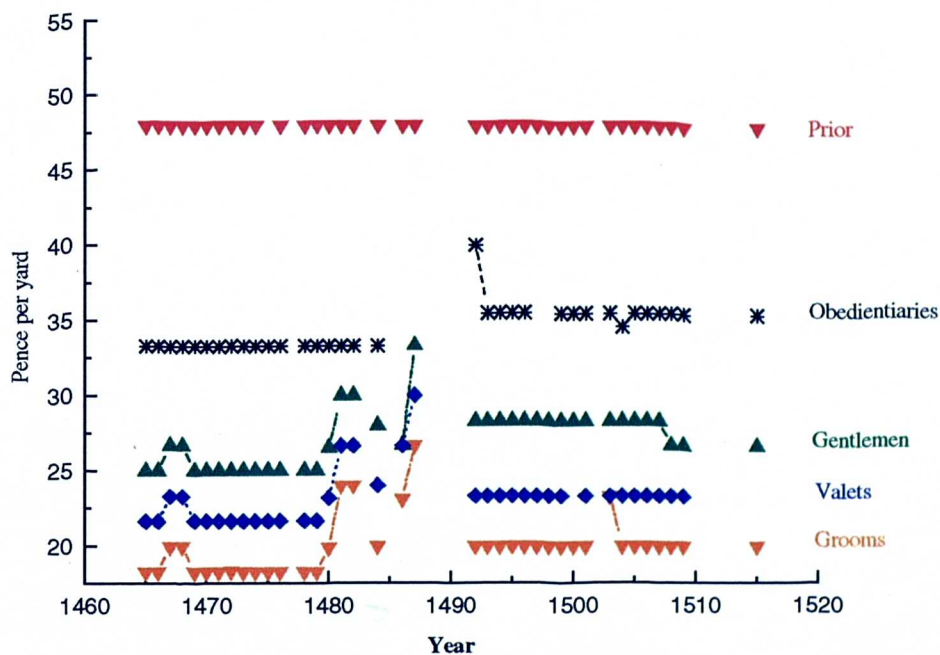
It would seem probable that the colour of the livery cloth chosen by the priory varied from year to year, and that in these years a mixed pattern was decided upon. The purchase of both striped and coloured cloths for servants seems to have been a fairly common practise in this period. The Peterborough Abbey receiver's account for 1443/4 lists the purchase of several different colours of cloth for servants, including *panni radiati le Chaumpe Murrey* (a grey striped cloth), *blewe medlye* or *blewmarlely* (blue medley), and *Strawenblewe*.²¹⁴ Clearly, however, striped cloths were considered rather too frivolous for men of clerical status.

Apart from these occasional references to stripes, then, the fact that the livery cloths for the obedientiaries of the priory were black and those for the servants were coloured is all that is disclosed in these accounts about the actual cloths bought. However, the five grades of wearer are clearly mirrored in the sharply differentiated prices paid for the cloth intended for each. For example, in 1465-6 an ell of the cloth bought for the prior cost 4s.0d., for the main obedientiaries just over 2s.9d., for the gentlemen 2s.1d., for the valets just under 1s.10d., and just over 1s.6d. for the grooms. In 1509-10, the equivalent prices were 4s.0d., just under 3s.0d., just under 2s.4d., just over 1s.11d., and 1s.8d. respectively. Although the cost of cloth for the prior did not change in this period, and the small price rise that occurred in the mid-1480s did not change all the prices in exactly the same proportion, the resulting alteration in the differentials between the five price levels is slight. On only four occasions are the

²¹⁴ Greatrex, *Peterborough*, p.164.

five degrees outlined above not present in the accounts in this stratified manner. In 1475/6, the prior's livery is not mentioned (although his usual furs are still purchased); in 1500/1 and 1515/6, when for no apparent reason the 'valet' class is not present (with no concomitant rise in the volume of cloth purchased in other categories); and in 1486/7, when the gentlemen and valets are classed together and the same type of cloth (at the lower of the two prices, i.e. that current for valets' cloth) is purchased for both. The clear stratification of these prices is shown on the following graph.

Fig. 39: Prices paid by the bursar for livery cloth for the prior, obedientiaries, gentlemen, valets and grooms of the priory respectively, 1464-1520.



It can be seen from the graph that the cloth bought for the prior's livery cost well over 100% more than that for grooms. However, the only warning given in these accounts that these cloths were very different items is their widely

differing prices. The combination of these two facts should alert us to a major danger in comparing medieval cloth prices from different sources, or even from within the same source in the absence of the clues given here as to the intended destination of the cloth: that it is very possible that ostensibly similar cloths may in fact have been of greatly differing qualities without such a difference being noted in the surviving records. In the case of these Durham livery cloths, it is possible to distinguish the black cloth intended for the monk officials and for the prior from the coloured cloths purchased for servants' liveries; but even within these two groupings prices varied a great deal. The cloth bought for the prior was over a third more expensive than that bought for the major obedientiaries, and a similar differential applied between the gentlemens' and grooms' cloth. A significant margin of error must therefore be presumed to exist in any comparison of cloth prices where the sources do not make it tolerably certain that like is being compared with like.²¹⁵

It is clear that the different price levels paid by the priory for the cloth for the livery of different grades of dependent must have represented very different qualities of cloth, as was considered appropriate to the status of the respective wearers. It was common practice at this time for liveries to be given which both proclaimed the wearer's association with a household or other grouping, and at the same time made his or her status clear. For example, the liveries of the City of London were graded to differentiate between Mayor, Sheriffs, gentlemen, yeomen and so on, 'possibly in the colours and quality [of the cloths] and

²¹⁵ A similar example, from a very different context, of different prices being the only differentiator between different cloth qualities is quoted by K.Staniland, 'Clothing Provision and the Great Wardrobe in the Mid-Thirteenth Century', *Textile History*, 22 (1991), p.248; Bartholomew Tyer of Lyons was requested in 1244 to supply, amongst a long list of other items, '100 cloths of *Arest* without gold, 40 cloths of gold of higher price, 20 cloths of gold of greater price than the aforesaid cloths'.

certainly in the quantity given'.²¹⁶ A similar gradation to that seen for Durham is also to be found in other clerical establishments, for example at Peterborough Abbey and in the household of the Bishop of Hereford.²¹⁷ Thorold Rogers also noted such a hierarchy of cloth prices in the extensive information which he gathered from New College, Oxford.²¹⁸

At Sion Abbey in 1481, livery cloth for gentlemen cost 3s.6d. per yard, that for yeomen cost 2s.6d. and for grooms, 1s. 10½d; in 1489 equivalent cloths cost 3s.6d., 2s.8d. and 2s.0d. respectively.²¹⁹ At Oxford, livery prices appear to have changed little throughout this period, even in the 1480s when small but significant price changes can be seen for almost all the cloths bought for livery at Durham. Thorold Rogers records gentlemens' livery cloth as having cost 48s.0d. per whole cloth, and servants' livery cloth 38s.0d., in 1452, 1454, 1461, 1472, 1483, 1484 and 1489. Furthermore, gentlemen's cloth cost the same (48s.0d.) and servant's cloth the slightly lower price of 36s. per cloth in 1466, 1494, 1497, 1501 and 1510.²²⁰

Furs

Furs were also bought as part of the priory's livery purchases by the bursar for the prior, some monks (the nine main obedientiaries for whom he bought livery cloths) and the gentlemen servants of the priory. The price and description of these furs remained constant throughout this period, with the exception of the three years mentioned earlier in which furs for the monks were

²¹⁶ A.F.Sutton, 'Order and Fashion in Clothes: The King. His Household and the City of London at the End of the Fifteenth Century', *Textile History*, 22 (1991), p.263.

²¹⁷ Greatrex, *Peterborough*, pp. 11, 116-7, 164, 183, 197; Dyer, *Standards of Living*, p.78.

²¹⁸ Rogers, *Agriculture and Prices*, Vol.IV, pp.564-6.

²¹⁹ Rogers, *Agriculture and Prices*, Vol.III, p.500-1.

²²⁰ Rogers, *Agriculture and Prices*, Vol.III, pp.496-502.

not listed separately but were included in the cash payment made to them for their livery as a whole. Apart from these three years, in every year for which accounts have survived the bursar purchased $16\frac{1}{2}$ black furs costing 1s.6d. each - 3 for the prior and a total of $13\frac{1}{2}$ for the main obedientiaries, which represents $1\frac{1}{2}$ each.²²¹ It is interesting to note that the difference in status between the prior and his main obedientiaries is here marked only in a difference of quantity, rather than of quantity and quality as is the case with the livery cloth recorded only a few lines before in the accounts. It may well have been the case that fur price increments were larger than those for cloth and thus did not allow for such fine differentiations of rank; in other words, that the purchase of a more expensive type or higher grade of fur for higher ranking officials would have meant a much greater leap in price than was considered acceptable within the range of monastic purchasing.

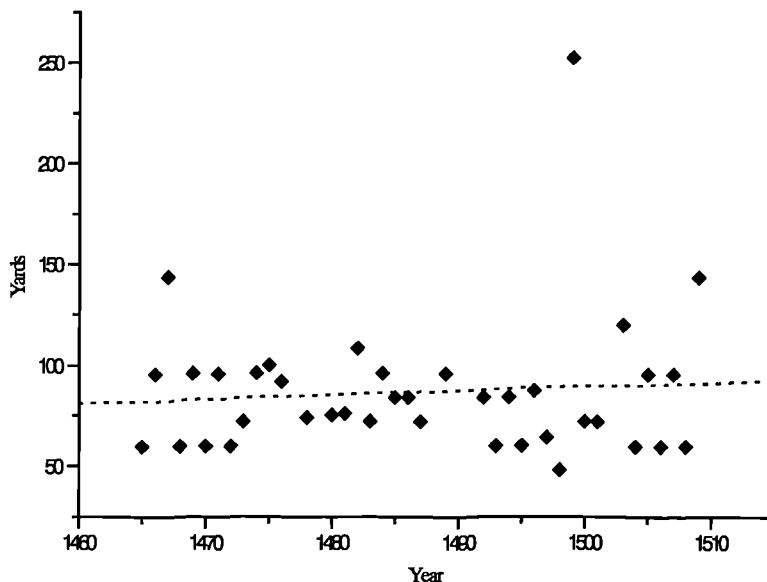
The fur intended for the livery of the gentlemen servants of the priory, on the other hand, was differentiated from that purchased for the monastic liveries in all of the three ways seen for the livery cloths: quantity, price and colour. Each year the bursar purchased between 8 and 12 white furs (usually 8), costing 11d. each, for these servants. It is not clear exactly how many furs each this represented, but the lists of servants' liveries which have survived for 1509/10 and 1510/11 record that the priory had 10 gentlemen servants in those years.²²² The bursar's account for the latter year has not survived, but in 1509/10 the standard purchase of 8 white furs was made, suggesting that each gentleman received four-fifths of a fur.

²²¹ In the bursar's account for 1507/8 the prior's fur is described as white. The price remains the same, however, and it seems likely that this was a scribal error.

²²² DCM B.Bk.H, 204v., 274v.-275r.

If this was a standard allowance, as other allowances of cloth appear to have been, then the changing amounts bought by the bursar would seem to imply a decrease in the number of gentlemen servants over the period looked at here. Twelve white furs per year were bought in the first seven years of this period, from 1465 to 1471; this decreased to 10 in 1472, 9 in 1473 and 1474, and to 8 in every other year from 1475 onwards, a decline which might well have matched a decline in the number of gentleman servants retained by the priory from 15 to 10 over the same decade. However, as the graph (fig. 40) shows, no similar pattern of decline may be seen in the amount of cloth bought by the bursar for gentlemen's livery each year.

Fig. 40: The amount of livery cloth bought by the bursar for the gentlemen of the priory, 1464-1520



The quantity of cloth bought for the priory's gentlemen fluctuated a great deal from year to year, but a best-fit line reveals if anything a slight trend

upwards rather than downwards. It was probably the case, therefore, that what changed over this period was rather the amount of fur given per person, with the annual distribution to each gentleman servant of four-fifths of a fur representing a decline from an earlier standard distribution of one and a fifth furs. This would fit with the general pattern often noted of a decline in fur wearing throughout medieval Europe by the late medieval period; but if the monastery was indeed reacting to fashion in such an apparently fine-tuned way, this would imply a remarkable degree of flexibility and willingness to set aside tradition.

The type of fur which the bursar purchased is not stated in these accounts. However, from the colours bought and the prices paid it seems likely that they were lamb skins, the most common fur in general use in England throughout the later middle ages, but by no means a fashionable or prestigious one.²²³ As far as can be ascertained from surviving account rolls from other monasteries, lamb seems to have been a fairly usual monastic purchase, and the prices paid by the Durham bursar were in the usual range of prices for furs identified in other accounts as being lamb. For example, in 1398/9 the bursar of Selby Abbey purchased 10 lambskins for the esquires' livery at 1s.3d. each, in 1404/5 the abbot's receiver at Peterborough Abbey purchased 15 lamb furs costing 1s.3d. each, and in 1433/4 the latter official purchased two lamb furs at 2s.0d. each and another two furs at 2s.3d. which were probably lamb.²²⁴ The recipients of the Peterborough furs are not named, so they may have been monks or servants. However, they certainly did not include the abbot, for whom a much more expensive fur was bought in 1433/4, 14s.8d. being spent on the purchase of a

²²³ E.M.Veale, *The English Fur Trade in the Later Middle Ages* (Oxford, 1966), pp.133, 176.

²²⁴ Tillotson, *Monastery and Society*, p.74; Greatrex, *Peterborough Abbey*, pp.117, 164. The 1433/4 entry states that two unidentified furs were bought for 4s.6d., and then that two 'other

single new fur and the mending of another for him.²²⁵ At an earlier period it would seem that the prior wore budge (a more expensive, imported lambskin) and the chief obedientiaris squirrel; it is unsurprising that this had changed, since all the rarer furs were becoming extinct or greatly increasing in price by the fifteenth century, a process which contributed to the declining fashion for furs already noted.²²⁶

Livery and the Priory's Standard of Living

Cloth and clothing have always been important, since visible, indicators of social standing and of wealth, and most societies have used textiles in some way to define and advertise status, hierarchy and tradition.²²⁷ In medieval Europe in particular the use of fabrics in this way, as definers of social stratification, was taken for granted at all levels of society. The disquiet felt by those in power when those below them on the social ladder copied their fashions took statutory form in the various sumptuary laws passed from time to time throughout this period. These frequently had economic motives behind them, such as to encourage home production and exports and limit imports, but their provisions make it clear that a prime intention was also 'the desire to preserve class distinctions, so that any stranger could tell by merely looking at a man's dress to what rank in society he belonged.'²²⁸ Since it is frequently alleged, no doubt with a great deal of truth, that the reason these laws were so frequently re-enacted was because they were

lamb furs' were bought for 4s.0d.; the use of the word 'other' suggesting that the first two were in fact also lamb.

²²⁵ Greatrex, *Peterborough Abbey*, p.164.

²²⁶ Veale, *English Fur Trade*, p.8; Fowler, *Account Rolls*, Vol.I pp. 165, 169, 178, 215, Vol.II pp. 495, 505, 507, 562.

²²⁷ A.B.Weiner and J.Schneider, eds., *Cloth and Human Experience* (Washington, 1989).

²²⁸ F.E.Baldwin, *Sumptuary Legislation and Personal Regulation in England* (Baltimore, 1926), p.10.

widely ignored, it is interesting to see that the practice at Durham priory show definite parallels with the sumptuary laws passed in England in this period.

Acts of Apparel were passed by Parliament in this period in 1463, 1483, 1510 and 1515, all containing broadly similar prohibitions but with a tendency to increase the provision for exemptions over time. For example, that of 1510 excluded all women from its provisions whereas the act of 1483 had specifically included the wives and daughters of husbandmen and labourers, whilst the 1515 act provided for a greater degree of flexibility for servants in the royal households.²²⁹ The 1510 legislation provides a useful (if somewhat limited in scope) benchmark against which to assess the generosity or otherwise of the priory's cloth provision to its servants and inhabitants, since its provisions include several clauses prohibiting certain classes of people from wearing garments containing more than certain amounts of cloth, as has been seen, and also from wearing cloth valued at more than certain sums per yard. This act specified that cloth costing above 2s.0d. per yard (of standard broadcloth width) was not to be worn by 'servant of husbandry nor shepherd nor common labourer nor servant unto any artificer out of the city or borough nor husbandman having no goods of his own above the value of £10', and furthermore that the same group were not to wear hose worth more than 10d. the yard. Other servants have only the cost of their hose regulated: 'no serving man waiting upon his master under the degree of Gentleman' was permitted to wear hose made of cloth costing more than 1s.8d. the yard, 'except it be of his master's wearing' – in other words, unless it were a hand-me-down.²³⁰

²²⁹ W.Hooper, 'The Tudor Sumptuary Laws', *Economic History Review*, XXX (1915), pp.433-4.

²³⁰ Williams, *English Historical Documents*, pp.250-1.

These statutory price-marks can be compared with the amount paid by the priory for its servant's livery cloths in 1509/10: just under 2s.4d. the yard for gentlemen, just over 1s.11d. for valets and 1s.6d. for grooms. Leaving aside the value of hose specified in the act, for which it is not easy to make comparisons with these Durham figures, the important division appears to be between those who are, and those who are not, permitted to wear cloth worth more than two shillings per yard. It is interesting to see that the cloth values for the Durham liveries in this year circle this figure, seemingly aware of its symbolic importance – only those servants who are categorised as gentlemen are bought cloth over this value, whilst the cloth for the next level down, the valets, is just marginally under this level. In addition, the 1510 statute specifies that servants beneath the rank of gentlemen were not permitted to wear any kind of fur, a prohibition which evidently matched the practice at Durham where furs was purchased for the prior, monks and gentlemen only.²³¹

A similar lack of ostentation would appear to have prevailed in the quality of the cloth purchased for the monks' clothing. Comparisons of the amount paid by the priory for such cloth with other contemporary sources of cloth price information show that the cloths bought by the priory were by no means extravagant by the standards of the day. This was perhaps just as well, since there was a strong tradition in this period of equating the wearing of exaggerated fashions and costly garments with devilish activity. The vision of Edmund Leversedge, which was written in 1465, described a vision of devils and angels wrestling for a man's soul, the devils using his fashionable dress as evidence that he was theirs. The angels protest, and he is saved but warned never

²³¹ Williams, *English Historical Documents*, p.250. The same distinction was in force at Westminster Abbey in this period: B.Harvey, *Living and Dying*, p.168.

to wear such clothes again. The condemned fashions are described in some detail – he is to refrain from wearing padded shoulders, very short tunics, long, pointed shoes, long hair, high hats and tight hose. In prescribing a modest standard of dress, the vision notes not only that henceforth his gown should be mid-leg in length and black in colour, but also that the black cloth should cost only 2s.6d. or 2s.7d. per yard, further evidence that the quality of cloth was generally described only by reference to its price.²³² The cloth bought by the priory in this period compares well with the yardstick of extravagance laid down by Edmund's vision: with the exception of the 4s.0d. per yard paid for the cloth for the prior's gown, the most expensive cloth purchased by the priory was the black bought by the bursar for the main obedientiaries' gowns, at 2s.7d. the yard in the 1460s and just under 3s.0d. the yard by 1510.

By contrast, cloth purchased by the royal household and for the households of the higher nobility could be breath-takingly expensive. The most expensive textiles – velvet, silks, cloth of gold and so on – were priced more on a par with jewels than with normal clothing. An example of the extravagant expenditure on textiles which was commonplace in such households may be found in the Duke of Norfolk's draper's bill for 1483, which came to a grand total of £156.16s.2d. The two single largest items of expenditure were £40.0s.0d. for 15 yards of cloth of gold, and £38.8s.4d. for 9¾ yards of damask; these textiles therefore cost £2.10s.0d. and £3.18s.9½d. per yard respectively. The most expensive textile bought was half a yard of crimson (perhaps mixed with gold) which cost an astonishing £4.0s.0d. per yard. In addition, large amounts of luxurious velvet and satin were bought, in various different dyes, costing

²³² W.F.Nijenhuis, ed., *The Vision of Edmund Leversedge* (Nijmegen, 1991), pp.10, 60-1, 121.

between 7s.0d. (for black satin) and 16s.0d. (for purple velvet) per yard.²³³ The royal household spent on an even grander scale, as the long lists of golden, velvet and ermine-trimmed garments in the wardrobes of the kings of this period demonstrates.²³⁴ Although the priory accounts do not include any expenditure on this scale, such luxury materials as these were certainly present (in somewhat smaller quantities) in the priory in the form of the precious vestements described above. Even the more everyday cloths bought by the royal and magnate households, such as woollen broadcloths for outer clothing, were often priced at up to twice the amount paid for the highest quality cloth bought by the priory, that for the prior's robe. Although such cloths were the preserve of the very highest households, cloths of higher price than those bought by the priory were purchased by a wide stratum of the nobility. The Stonor family, for example, purchased a range of cloths; a bill from 1478/9 shows that the russet and tawny broadcloths worn by the chief members of the family cost between 6s.0d. and 7s.6d. the yard.²³⁵

The cloth prices paid by Durham Cathedral Priory would appear to place the monks' clothing, somewhat surprisingly, alongside that of the lesser nobility and gentry families such as the Pastons. In 1449 Margaret Paston asked her husband to obtain black broadcloth at 3s.8d. or 4s.0d. the yard for a hood for herself, and in the mid-1450s she reported to him that she was having difficulty finding suitable broadcloth for liveries at the price she wanted to pay, which was a maximum of 3s.0d. the yard.²³⁶

²³³ J.P. Collier, ed., *The Household Books of John, Duke of Norfolk and Thomas, Earl of Surrey, 1481-90* (London, 1844), pp.416-7.

²³⁴ Sutton, 'Order and Fashion', pp.255-8.

²³⁵ C.L. Kingsford, ed., *The Stonor Letters and Papers, 1290-1483*, 2 vols. (Camden Society, 3rd Ser., XXIX and XXX, 1919), Vol.2, p.75.

²³⁶ H.S. Bennett, *The Pastons and their England* (Cambridge, 3rd edn. 1990), p.54.

The lack of much evidence of cloth purchases from other monastic establishments in this makes it hard to tell whether the relatively modest standard of dress at Durham was typical or atypical. About the only directly comparable example from elsewhere comes from Peterborough Abbey in 1504-5, when the livery purchases included 14 ells of black cloth for the Abbot and his officials, at a cost of 5s.0d. the ell. In addition, whole garments were bought for four categories of servant - gentlemen, principal valets, second valets and grooms - at 8s.0d., 6s.8d., 6s.0d. and 5s.0d respectively – but these prices are not, of course, directly comparable with the Durham figures for cloth by the ell.²³⁷ It can be seen, however, that the black cloth was significantly more expensive than that bought by Durham at the same date, 20% more for the prior/abbot and around 65% more for the chief obedientiaries. However, it would be irresponsible to refine too much upon a single example, and such differences could potentially be accounted for by transport costs: Durham was buying from Leeds in 1504/5, but the source of the Peterborough cloth is not stated in the accounts. For cloth for servants, the closest comparison comes from slightly earlier in the century, when the accounts of the cellarers of Battle Abbey record the purchase in both 1435/6 and 1442/3 of woollen cloth for the livery of the cellarer's servants at 1s.10d. per yard.²³⁸ The degree of the servants is unknown, but this figure is very close to those seen for valets and grooms at Durham in 1465/6, at just under 1s.10d. and just over 1s.6d. respectively.

Overall, therefore, the cloths bought by the Durham obedientiaries may be split into two major groupings. The main division was between cloths bought purely for utility, selected presumably because they were suited to the purpose in

²³⁷ Greatrex, *Peterborough*, p.183.

²³⁸ Searle and Ross, *Battle Abbey*, pp.116, 136.

mind, but also for their cheapness; and cloths bought for use, certainly, but with the impact that, in fulfilling that use, they would have upon perceptions of the priory and its status always in mind. The cheapest cloths bought show a strong degree of price-responsiveness, purchases increasing when prices fell and decreasing when they rose. Other middling cloths, such as linen and serge, were not bought with display in mind, but demand was relatively inelastic since clothing, bedlinen and so on were a constant requirement and a certain standard was no doubt assumed to be necessary. The demand for the livery cloths was apparently totally inelastic, although the lack of any great fluctuations in price means that this was not tested in this period. Certainly, however, the priory's purchases of these status-defining cloths show clearly that the firm and rigid delineation of the varying steps of social status was a primary object here. There is some evidence to suggest that the bursar shopped around for the best deal when his reliable supply in York dried up in the mid-1480s, (discussed in depth in chapter 4), but other than then the livery cloths are the one area in the priory's purchasing when a long-term relationship with a single supplier can be seen, suggesting that here at least consistency, reliability and perhaps even tradition, were considered more important than price. Yet even when buying the most expensive cloths ever to enter the priory, the vestments, the epitome of cloths for which display, magnificence and beauty were paramount, the priory never lost sight of price altogether. Relatively, if not absolutely, the obedientiaries still hoped for good value.

Conclusion

Finally, it may be valuable to take an overview of the price movements of all the commodities considered here, and to look both at the overall trends of prices and at the overall purchasing strategies pursued by the priory in response to or in defiance of such changes. Whilst most price series in this period were characterised by fluctuation rather than steady progression, the overall trend of price movements in the commodities looked at in this chapter can be crudely compared by looking at the lines of best fit which may be plotted onto their respective price graphs. The first thing which is immediately clear from such an exercise is that there was no general price trend, either inflationary or deflationary, which could be said to have been in operation across all or most commodities at this time. The different commodities looked at here show a range of price movements, differing from each other not only in degree but also in direction. Wine, dried fruit and sugar prices fell noticeably over this period, but no equivalent trend can be seen in the prices paid by the priory for other spices such as pepper or ginger. For cloth, the prices of all the livery cloths (except that bought for the prior, which remained static) increased slightly over this period, whilst the prices of the cheaper cloths such as hardyn and sackcloth fell significantly. Within the overall heading of grain most varieties show if anything a slight decrease over time, but for barley the reverse is the case, although for all the grains bought by the priory the size of the annual fluctuations in price were such as to make linear analysis an unreliable indicator of trends.

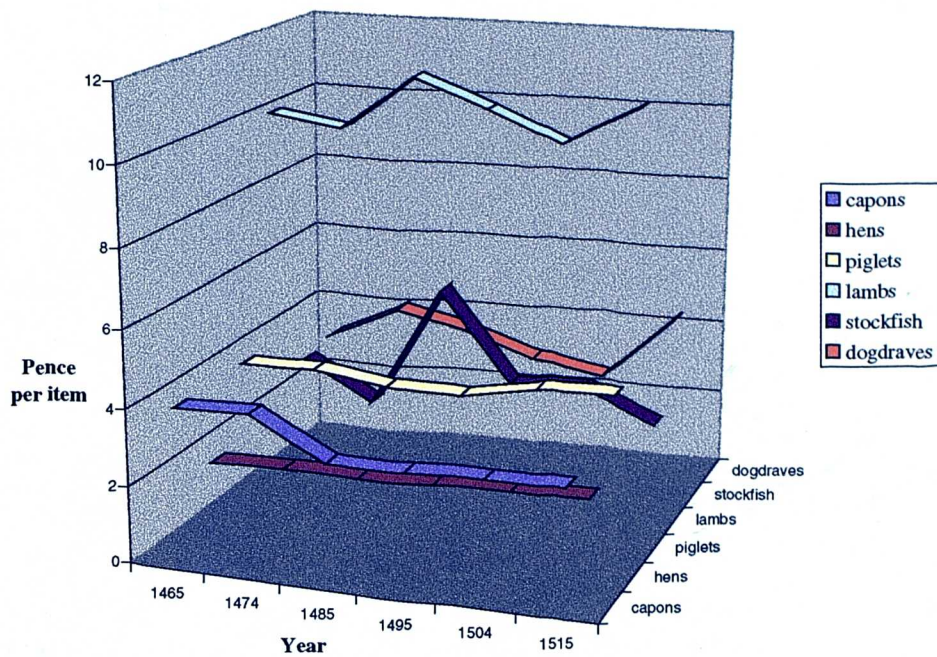
As with grain, for most of these commodities the degree of price change over this period was slight; so slight, indeed, as to be negligible in comparison with the annual fluctuations which were so normal a part of medieval life. This

lack of any strong directional tendency in the prices paid by the priory overall fits with the inflationary trends observed more generally for the later medieval period, which saw prices remain static or rise very slightly in the second half of the fifteenth century, began to rise after 1500, and increase more steeply as the sixteenth century progressed.²³⁹ Overall, the period examined here was one of price stability; that is to say, the often violent fluctuations in the prices of various commodities from year to year were essentially random and tended to cancel one another out over time, rather than concealing a general upwards or downwards trend.

Furthermore, the prices of the different commodities bought by the priory varied independently of one another. It was therefore not generally the case that a year in which one type of goods was particularly expensive was a year in which high prices prevailed over the whole monastic 'shopping basket' of goods, and this again tended to cancel out the effects of fluctuations over time. This phenomenon may be illustrated by looking at the prices of the livestock and fish purchased by the priory, goods which have not been analysed in detail in this chapter both because the use of sample years in their analysis has meant that full price series are unavailable and because the issues raised in the priory's purchasing of these commodities are very similar to those already seen for grain. The prices of each of these goods varied quite differently from one another in the sample years looked at here, with peaks and troughs occurring in different years or not at all for the different commodities (fig. 41).

²³⁹Y.S.Brenner, 'The Inflation of Prices in Early Sixteenth Century England', *Economic History Review*, 2nd Ser., 14 (1961), p.226: S.V.Hopkins and E.H.Phelps-Brown, 'Seven Centuries of the Prices of Consumables', *Economica*, New Ser., 23 (1956), pp.297-302.

Fig. 41: Price trends in a sample of meat and fish products, 1465 – 1515



As has been seen in the case-studies of grain, luxury goods and cloths, the priory's response to such fluctuations in price varied between commodities. The level of need, strength of desire and social implications all shaped the extent to which considerations of price were permitted to influence the priory's purchases of any particular commodity. The priory's grain purchases were characterised by a basic minimum need which was met regardless of price, coupled with an elastic degree of demand over and above that minimum when the price was right. That is to say, at least 1500q. of grain were bought in each year, but above this figure the priory's demand shows some correlation with price. This picture was further complicated by apparently random fluctuations in demand caused by a wide variety of largely incalculable factors such as the condition of stocks remaining in the granary. Furthermore the proportions of different types of grain bought,

whilst not conforming to any strict pattern, did respond to some extent to changes from year to year in the relative prices of the different varieties.

For other goods there was a more immediate correlation between price change and change in the amount bought by the priory. This was the case for two distinct types of commodity, both the very mundane and the very luxurious, and can be seen for example in the priory's purchases of hardyn and of sugar.

Meanwhile, other luxury goods which were highly associated with status and prestige were bought apparently regardless of price changes. This applied both to the priory's purchases of wine and of the livery cloths, which were bought in relatively constant quantities throughout this period whether or not the price rose or fell. Nevertheless, for both these commodities the priory appears to have been conscious of the prices paid for various qualities and types, and alert to subtle nuances in the social implications of such distinctions. Moreover, there is some evidence for both these commodities that the priory actively 'shopped around' for the best deal and was prepared to switch suppliers or look outside the immediate area to achieve the best price, implying that the maintenance of a constant volume of supply in the face of fluctuating prices was a considered decision rather than a side-effect of consumer inertia.

Overall, this analysis of the main factors influencing the priory's purchasing choices suggests that the obedientiaries were relatively sophisticated consumers. They were aware of the different varieties of goods available to them, and these were chosen taking into account both the absolute prevailing prices of goods and the relative costliness of one variety compared to another. The social implications of their choices were also considered, and the extent to which these and other factors were weighted in their final decisions varied from one

commodity to another. They were also both willing and able to source goods in a variety of ways and from a variety of markets. The strategies and techniques used by the priority in the actual sourcing of the goods they had decided to buy, and the impact in return of these issues on the goods bought, are the focus of the following discussion.

Chapter Four

Tenorial Purchasing

Introduction

Every transaction made by the priory involved four basic steps, at each of which decisions had to be made. First, it was necessary to decide what was wanted: how much of a particular commodity was needed, whether a particular quality or variety was required, and so on. Prevailing prices, availability, tradition and the expectations of various interested parties all played a role in determining the answers to these questions, as has been seen in the previous chapter. Secondly, a decision had to be made about from whom the commodity in question was to be sourced. The same factors of price, availability, tradition and expectations were important here, too, but others may also have had a bearing on the decisions made. It is possible, for example, that some purchasing decisions may have been affected by the convenience of using a particular supplier, kinship or other ties, or even by a desire to manipulate the market in some way – for example, to foster competition or conversely to maintain or establish a monopoly. Thirdly, once goods had been contracted for, they had to be brought to the priory (or other place of consumption). Arranging and paying for the carriage of goods may have been separate from or included in the original transaction; if separate, further decisions had to be made. Transport arrangements and costs may also have impacted on the decision of who to buy from, and in particular of whether it was worth looking outside the immediate area for supplies. Finally, the goods had to be paid for. How and when this was done again varied a great deal; the priory had to decide between direct payment,

payment through agents, or payment offset against debts owed to the priory by the supplier, and the date of payment appears also to have been a matter for negotiation.

Each transaction could involve any combination of decisions at each of these four stages, and examples of a wide variety of permutations can be found in these accounts, although certain decisions were much more likely to be taken for certain commodities, or for luxury as opposed to staple varieties. Cutting across these complexities, however, were two clearly distinct purchasing patterns: the 'market' and the 'tenorial' methods. Whilst there was some overlap between the commodities bought using these two methods, it was generally the case that local agricultural produce such as grain and livestock were bought via tenorial contacts, whilst imported and/or manufactured goods were bought via market networks.

This chapter addresses the first of these two patterns, the 'tenorial' method of purchasing goods. Most of the basic foodstuffs purchased by the priory were acquired in this way, as were some locally-manufactured goods such as coarse cloths and Weardale iron. These commodities were primarily purchased from tenants of the priory lands which lay around Durham, in an area roughly bordered by the Tyne to the north, the Tees to the south, the Wear to the west and the coast to the east. The priory's purchases of such goods from their own tenants meant that a close economic relationship existed between landlord and tenant, and this was mirrored in the accounting and payment system used for these purchases. That is to say, a two-way relationship of supply and payment existed between the priory and its tenants, the priory providing land for which the tenants owed rents, and the tenants supplying the priory with goods for which

payment was owed by the priory: and the accounting system used by the priory acknowledged and made use of this inter-relationship.

Rents were accounted for in the income sections and goods were accounted for in the expenditure sections of the obedientiary accounts at their cash values; however, it is clear that these two cash payments were rarely actually made. Instead, the tenants of the priory supplied goods, the value of which was recorded against the rent owed by each individual. Debts in both directions were thus balanced against each other and often any surplus was carried forward into future accounting years. Theoretically, therefore, the system could have been run on an entirely cashless basis, although in practise discrepancies in either direction at the end of the accounting year were often made good by cash payments of the balance to or by the priory as appropriate.

In this chapter the extent to which certain goods were acquired by the priory in this way rather than via market transactions is analysed, and some of the implications of the use of this method of supply are discussed. The issue of the locations from which such commodities were sourced is then addressed, first by looking at the methodology used here in analysing the often patchy locations information given in the accounts and then by mapping the areas from which certain commodities for which enough information exists were bought.

Grain

The single most prominent commodity acquired by the priory by the tenurial method of supply was grain – wheat, barley and oats. The grain acquired by the bursar came primarily from tenants of the priory, and the majority of this was paid to the priory as in-kind rent payments, as are detailed in the various

bursar's rent-books to have survived. These core supplies were supplemented by small amounts of grain bought by the bursar, and some which came into the priory from a few tithes that were paid directly rather than being farmed. The grain acquired from the bursar was then passed to the granator, who often also accounted for an *incrementum* (an adjustment to compensate for differences in measurement) which the bursar makes no mention of.

In order to investigate how many of the bursars' apparent grain purchases were in fact payments of grain made in kind in part-payment of debts or rents owed to the priory, a full comparison was made of all the grain mentioned in the grain sections of the bursar's account and in the bursar's rental for 1495/6. This year falls in the middle of the period under consideration here, but more importantly the rental for the year has survived intact and has recently been edited and published.²⁴⁰ There are a few relatively small discrepancies between the details listed in the account and the rental, some of which are clearly errors of little importance, and a small amount of additional grain was purchased by the bursar over and above that received from his tenants. Overall, however, the grain purchased by the bursar shows an almost exact match to that paid by tenants in lieu of money rents, clearly demonstrating that the overwhelming majority of the priory's grain was acquired in this manner.

Grain was acquired by the bursar from a total of 26 individuals and groupings of tenants. Of these, the details match exactly in eleven cases (that is, the grain acquired from the tenants of East Rainton, Moorsley, South Pittington, Eden, Cowpen Bewley, Chilton, East (Kirk) Merrington and West Merrington, William Brown of Monk Hesleden, John Kape of Southwick and the tithe

²⁴⁰ Lomas and Piper, *Rentals*. Bursar's books also exist in the archive for 1507-10.

payment of Richard Smyth of Shadforth), and are substantially the same in four more (that from the tenants of Dalton, North Pittington, Coatsay Moor and Newton Ketton). These latter cases have small differences in names and so on between the two accounts, but the quantities and values of the grain involved are either identical or would be but for what are clearly scribal errors.

The ten entries in the bursar's grain accounts which do not quite tally with those recorded in the rental are the purchases from the tenants of West Rainton, Monk Hesleden, Newton Bewley, Wolviston, Billingham, Newhouse (in Aycliffe), Aycliffe itself, Ferryhill and Mid Merrington or Middlestone, Roger Morland of Pittington and John Matho of Southwick. The majority of these discrepancies are very minor indeed, and are probably simply errors. For example, in the case of Roger Morland of Pittington the bursar's account records that he provided 44q. of wheat for £8.16s.0d. and 35q. of oats for £2.3s.9d., whilst the rental has it that he paid the first sum with only 40q. of wheat (still worth £8.16s.0d.), and that the 35q. of oats were worth £2.3s.10d.²⁴¹ The differences between the bursar's account and the rental for the Hesilden grain are merely that William Wilkyson is recorded as providing 8q.3b. of wheat in the account and only 8q. in the rental, whilst according to the account John Ranaldson sold the bursar 4q.6b. of oats, 1q. more than he is credited with in the rental.

The most significant differences between the two accounts are due to the appearance in the bursar's grain purchases of grain which was not mentioned in the rental, appearances which presumably imply additional purchases made over

²⁴¹ The account is likely to be right rather than the rental, since the sum divides by 44 to give 4s. a quarter, whereas £8 16s. 0d does not easily divide by 40. This discrepancy implies that the account was not drawn up from the rental, but that the two documents were compiled independently.

and above the grain received in payment of rent. There are three main examples of this happening. First, 5q. of wheat, 4q. of barley and 12q. of oats were purchased from Richard Denom of Newhouse. He does have an entry in the rental, indeed he is the only tenant listed for Newhouse, and paid the large rent of £2.13s.4d.; the rental does not record how this was paid, only that it was owed, so it is possible (the value of the grain being less than this at £2.7s.0d) that this was in fact a payment in kind.²⁴² It is not clear why this should not be mentioned in the rental if it were the case however: it cannot simply have come in too late to be included, since the grain have been provided in the same accounting year to have been included in the bursar's accounts.

The other two examples seem definitely to have been direct sales. The grain acquired by rental payments from Billingham was supplemented by a further 20q. of wheat and 39q. of barley which are recorded in the bursar's accounts as having been bought from individuals who are not mentioned in the rental. Similarly, John Matho of Southwick's name appears only in the bursar's account, where it is recorded that he sold the bursar 21q.1b. of barley.

More surprisingly, some grain is listed only in the rental and not in the bursar's account. It is hard to explain why this should occur, since in general any grain entering the priory was accounted for by the bursar at its cash value whatever its provenance or mode of acquisition. Indeed, a failure to double-account in this way for such sums as were paid in kind to the bursar in settlement of rents owed to him would have meant that he would be personally liable for the apparent disappearance of the sums paid. It seems likely that some of these instances were the result of errors: the sums involved are small, and they come

²⁴² Lomas and Piper, *Rentals*, p.171, l.15-6.

from areas which were supplying the bursar with other grain. This may well account for the inclusion in the rental of 4q. of oats from West Rainton which does not appear in the bursar's account, along with 6q. of barley from Newton, 1q.4b. barley and 4q.2b. wheat from Aycliffe and 2q. barley and 4q. oats from Ferryhill. Three other occurrences are less easily explained away, however, since they come from people and/or areas not otherwise supplying grain to the priory: 2q. of wheat paid by Thomas Hilton of Wardley, 21q. of barley paid by John Atkynson of Fulwell and 20q. of barley paid by the widow of Richard Clifton, from the manor of Bewley.²⁴³

Nevertheless, these quantities are minor in comparison to the large amount of grain purchased by the bursar in each year, and it can be seen that the vast majority of the grain which entered the priory did so as a result of the payment of in kind by the priory's tenants. The next largest source of grain for the priory, tithes, was also predicated upon such tenurial relationships. Throughout the period under consideration here the tithes of Billingham, Wolviston, Bewley manor, Cowpen Bewley and Newton Bewley were received directly by the priory in grain. However, although the tithes of the other manors were generally farmed there was some variation from year to year, with certain tithes reverting to the priory as farms ended and being re-farmed in the following year or soon afterwards. For example, the years 1461/2 and 1463/4 both saw particularly large numbers of manors rendering their tithes directly to the priory, including Monk Hesleden, Sheraton, Hutton Henry and Aycliffe. Indeed, Aycliffe was in hand throughout the 1460s, but was farmed for the remainder of this period reverting to hand only briefly in 1485/6. Heighington and Walworth

²⁴³ Lomas and Piper, *Rentals*, pp.138, 150, 164.

also rendered their tithes directly to the priory sporadically throughout this period; both were in hand in 1495/6, for example. This variation in the manors in hand in any one year naturally led to variations in the amount of grain received by the priory from directly paid tithes, from a low of just over 51q. in 1481 to a high of 287q. 4b. in 1464. On average, however, the priory received 124q. 4b. of grain annually from this source, 5.8% of the total grain acquired by the priory in an average year.

In addition to these direct payments of tithes, the 1495/6 rental shows that even farmed tithes were occasionally paid partially in kind. For example the Aycliffe tithe, sold to George Popley for £9.0s.0d., was in fact paid in a variety of goods. Included in this mixed bag were 9q. 5b. of barley, worth £1.8s.6d. , a horse worth £1.10s.0d., and some cash payments.²⁴⁴ Similarly the Nunstainton tithe, sold jointly to Thomas Foster, Thomas Hergyll and William Tailor for £6.13s.4d., was paid partly in 8q. each of barley and oats.²⁴⁵

It is impossible to be precise in quantifying the proportion of the grain bought by the priory via market transactions. The accounts rarely specify whether purchases were made via tenurial networks or on the open market, although occasional references are made to purchases *in foro*, and there are other indications of market transactions which are discussed in full in the following chapter. However, the 1495/6 rental includes those rent payments which were made in grain, and by a process of elimination it can be assumed that grains not accounted for here, in tithe or in increment must have been acquired as the result of market transactions. A comparison of the bursar's account for 1495/6 with the rental reveals a discrepancy of 37q.3b. of grain which on this assumption were

²⁴⁴ Lomas and Piper, *Rentals*, pp.194, 1.9-14.

²⁴⁵ Lomas and Piper, *Rentals*, pp.193, 1.27-35.

bought at market, 1.7% of the total grain acquired by the priory that year.²⁴⁶ This may well have been rather lower than the average amount bought at market, but the average is likely to have been in the region of this figure.

The grain bought by the bursar and controlled by the granator was consistently measured in the standard medieval units of quarters, bushels and pecks (where 1q. = 8b. and 1b.=4p.). It is clear however that the amount accounted for by the bursar was often slightly different from the amount received by the granator, a difference referred to in the granators' accounts as an 'increment'. This accounted for the difference between the amount recorded as having been bought by the bursar and the amount measured into the granary by the granator, a difference which occasionally occurred due to measurement inaccuracies or variations. An increment occurs in these accounts mainly in connection with wheat purchases, and occasionally for barley, but not for oats or peas and beans. The percentage of the amount supplied to the granator by the bursar which the increment added to the total can be calculated for 27 of the 31 surviving granators accounts, those in which both the amount bought by the bursar and the amount of any increment are present and legible. The average percentage represented by these increments was 9.8%, although this conceals a great deal of variation, from a minimum of 1.2% (in 1508) to a maximum of 23% (in 1513). It seems likely that an increment was not applicable to all the grain transactions made by the bursar, but a detailed transaction –by-transaction analysis is impossible since only the total increment is given in these accounts. What is clear is that such differences in measurement were of only minimal

²⁴⁶ The bursar's account for 1495/6 in fact includes 101q.1b. more grain than is listed in the rental. However, in addition, and inexplicably, the rental lists a total of 64q.6b. for which no counterpart can be found in the bursar's purchases. If these sums are offset against each other, a remainder of 37q.3b. is left which it may be assumed was purchased by the priory.

significance to the priory's supply of grain; on average, the increment noted by the granator added 29q. 5b. of wheat to bursars' nominal annual purchases, while the barley increment was of negligible importance since it occurred so infrequently. In all, the increments accounted for 1.4% of the priory's grain, implying that this was the average overall variation from standard measures experienced by the priory in its dealings with its various suppliers.

1495/6 was a fairly average year, with a total grain income (from the granator's account, so including any increment) of 2180q.4b. If the market purchases figure for this year is taken as normative, the result is a picture of the priory's grain income in which 91.1% of the grain was acquired as the result of rent payments being made in kind, 5.8% from tithes, 1.7% from market transactions and 1.4% from measuring increments which cannot be precisely allocated between these categories. If it is assumed that the increment was proportionally distributed between the rental and market grain (tithe grain being listed separately in the granators' accounts) then in total 98.3% of the priory's grain came from tenorial sources and only 1.7% from market transactions. Even were it to be found that all the increment applied only to the grain purchases made via market transactions, these proportions would be little altered, to 96.9% and 3.1% respectively.

The payment of grain in lieu of rents which were expressed in cash terms was such a significant feature of the monastic economy that it seems probable that it was in some sense designed or planned to the advantage of the monastery. Looked at from another angle, grain was such an important staple item of the medieval diet, supplying both the bread and the ale which formed the basis of the monks' sustenance, that it is hard to believe that the monastery would have taken

no steps to safeguard its supplies. From both these points of view it would seem likely that some fixed arrangement, either legal or customary, underlay the tenurial system of supply. However, no such pattern is discernible from the surviving rentals. In addition to the published rental from 1495/6, the bursars' rentals have also survived in the priory archive for the four years 1507-10. A comparison of the payments made by tenants who are recorded in all of these rentals shows that the way in which their rents were paid could and did vary considerably from year to year.

The following tables (figs. 42 and 43) show the grain payments made by tenants of Cowpen Bewley, chosen because it was one of the places showing an exact match in the 1495/6 bursar's account/rental comparison, and because several tenants can be traced through all the surviving rentals.²⁴⁷ The table includes all those tenants who both paid some part of their rent in grain in 1495/6 and whose tenancies were still included, either in the same name or in that of a recognisable close relation, in each of the 1507-10 rentals. Both the quantity and the value of the grain paid is given, as clearly either element could have been fixed by the priory. Most of those included below paid a substantial amount of their rent in grain each year, presumably reflecting their farming interests; but even this aspect of their payments was not fixed, with both Robert and William Clyfton paying none of their rent using grain in 1510/1.

²⁴⁷ Lomas and Piper, *Rentals*, pp.157-9 for 1495/6; DCM B.Bk.H ff.28r-29v. (1507/8, ff.97r.-98v. (1508/9), ff.168r.-169v. (1509/10) and ff. 232r.-233v. (1510/11).

Fig. 42: Table showing the rental payments made in grain by tenants of Cowpen Bewley, 1495-1510

<u>Name</u>	<u>1495/6</u>	<u>1507/8</u>	<u>1508/9</u>	<u>1509/10</u>	<u>1510/11</u>
Robert Clyfton	£2.0s.0d. in 10q. Wheat	£2.0s.0d. in 6q. Wheat	10s.8d. in 2q. Wheat	£2.8s.0d. in 12q. Wheat	none
William Clyfton	£1.4s.0d. in 6q. Wheat	£1.6s.8d. in 4q. Wheat	£1.1s.4d. in 4q. Wheat	£1.12s.0d. in 8q. Wheat & 5s. 4d. in 2q. Barley	none
Robert Shoroton*	10s.0d. in 2q.4b. Wheat	£2.0s.0d. in 6q. Wheat & 8s.0d. in 2q. Barley	£2. 2s. 8d. in 8q. Wheat	£2.8s.0d. in 12q. Wheat & 12s.0d. in 4q. Barley	12s.0d. in 4q. Barley
Edward Dawson	8s.0d. in 2q. Wheat	8s.4d. in 2q. Wheat & 4s.0d. in 1q. Barley	£1.12s.0d. in 6q. Wheat	£2.0s.0d. in 10q. Wheat & 12s.0d. in 4q. Barley	12s.0d. in 4q. Barley
William Lawe junior	16s.0d. in 4q. Wheat	13s.4d. in 2q. Wheat	10s.8d. in 2q. Wheat	8s.0d. in 2q. Wheat & 6s.0d. in 2q. Barley	4s.3d. in 2q. Barley
William White**	£1.0s.0d. in 5q. Wheat	£1.6s.8d. in 4q. Wheat	£1.17s 4d in 7q. Wheat & 10s.0d. in 2q. Barley	£2.8s.0d. in 12q. Wheat & 12s.0d. in 4q. Barley	6s.8d. in 2q. Barley

*Robert Shoroton is named in 1495/6, his widow in 1507/8, his widow and her son together in 1508/9 and 1509/10, and the son only in 1510/1.

**William White is named in 1495/6 and 1507/8, and Alice White, probably his widow, from 1508/9 onwards

The variety and haphazard nature of the payments shown here make it clear that the way rents were paid was by no means frozen or fixed from year to year. In the light of this unexpected finding it is interesting to speculate whether the priory or the tenants had the upper hand in choosing how to make up the rental payments. If the priory specified this, one would expect to find more rents paid in grain when prices were high (if the intention was to minimise expenditure), or conversely when prices were low (if the intention was to maximise stores where possible). Similar alternatives might motivate tenants' decisions if they had the choice; in either case, one would expect there to be a strong correlation between price and the amount of rent paid in grain. In fact there is no such thing, as may be seen from the table.

Fig. 43: Table summarising the prevailing grain prices and grain used to pay rents at Cowpen Bewley, 1495-1510.

Year	Price of wheat	Total wheat used	Price of barley	Total barley used
1495/6	4s.0d.	29q. 4b.		
1507/8	5s.0d.	24q. 0b.	4s.0d.	3q. 0b.
1508/9	5s.4d.	29q. 0b.	5s.0d.	1q. 0b.
1509/10	4s.0d.	46q. 0b.	3s.0d.	16q. 0b.
1510/11			2s.1½d. – 3s.4d.	12q. 0b.

As the above table demonstrates, the amount of grain used by the tenants of Cowpen Bewley to pay their rents varied independently of the prevailing price. This may be seen particularly clearly in the different amounts of wheat rendered in the years in which the price was identical, 1495/6 and 1509/10. Such variation would suggest that the way in which rents were paid was a matter for the tenants to decide,

and that their decision was based on their individual circumstances in each year rather than being a matter of policy. However, one tendency that appears to have been common between these tenants was to use barley in addition to wheat in 1509/10, and either no grain at all or only barley in 1510/11. Such a tendency suggests some connection with the prevailing conditions rather than individual circumstance. In both these years wheat and barley were relatively cheap, both selling at a mode price that was 75% of the average over this period, with wheat costing 4s.0d. and barley 3s.0d. per quarter, so there was no relative difference in the value of the two grains that might account for such a pattern. It is notable that a significant drop in the amount of wheat acquired by the priory did occur in 1510/1, when the bursar accounted for only 338q.4b. of wheat compared with just over 802q. in 1508/9 and just under 713q. in 1509/10. (The amount of barley acquired did not change significantly in this period.) The pattern at Cowpen Bewley would thus appear to have been mirrored across the priory's estates, and in the absence of any notable change in the absolute or relative prices of the two grains which might explain such a trend it seems likely that the priory was to some extent controlling supplies. When this is taken in conjunction with the variation noted above, it seems probable that the priory was guiding but not coercing tenants in the nature of their payments, perhaps by issuing guidelines or by informally suggesting which grains would be most welcomed in a given year. If this were indeed the case, it would in turn imply that the relationship between the priory and its tenants was cordial and based on a high degree of mutual trust and understanding.

It has been suggested that grain and other goods were used in lieu of currency in the later middle ages due to a severe shortage of circulating coinage, especially small change. However, this theory does not suffice here to explain the widespread

use of such goods. In the first place, the chronology is wrong. The priory accounts show the use of in-kind payments flourishing in the years for which rentals have survived, 1495/6 and 1507-11, whereas the European 'bullion famine' of the mid-fifteenth century was at its height in c.1457-64, with the development of new sources of silver rapidly righting the shortage across Europe from the early 1470s.²⁴⁸

Meanwhile in England Edward IV's debasement of the coinage in 1464/5 (the only example of this in England in this period) led to an increase in production in English mint outputs between 1465 and 1480.²⁴⁹ Secondly, the importance of in-kind rent payments to the provisioning of the priory should not be allowed to obscure the fact that such payments were not the primary means by which the priory's tenants paid their rents. In the 1495/6 rental, 226 rents were paid entirely and 165 partially in cash, whilst 138 rents were paid entirely and 165 partially by goods or other non-cash means.²⁵⁰ It is possible that such a pattern would have been reversed in earlier decades when the currency shortage was at its height. Indeed, Spufford suggests that the end of the shortage in c.1465 led to a major shift in the nature of the medieval economy, being the turning point between a host of changes including a shift from deflation to inflation and 'a tendency to pay rents increasingly in kind ... and a tendency to pay rents once again in cash; between an increasing resort to barter and a decreasing use of direct exchange of goods'.²⁵¹ It is unfortunate that the bursar's rentals do not exist from earlier in the century to enable this suggestion to be tested. Whilst no statistical comparison of the 1495/6 rental with those from two decades later has been made, the

²⁴⁸ P.Spufford, *Money and its Use in Medieval Europe* (Cambridge, 1988), pp.359-63.

²⁴⁹ J.H.A.Munro, *Bullion Flows and Monetary Policies in England and the Low Countries, 1350-1500* (Aldershot, 1992), pp.114, 117.

²⁵⁰ R.A.Lomas, 'A Priory and its Tenants', in R.H.Britnell, ed., *Daily Life in the Late Middle Ages*, (Stroud, 1998), pp.117-9.

²⁵¹ Spufford, *Money*, p.377.

impression given from reading them is that there was no discernible drift towards cash and away from commodity payments over these years.

Three sets of people are mentioned in the grain sections of the bursars' accounts. In the first place, some names appear in the tithes section of the income part, as farmers of the priory's grain tithes. Clearly, these people were not 'supplying' grain to the priory, but they were part of the web of transactions which surrounded the priory's grain dealings, and in fact the same people often appeared in one of the following categories as well. Secondly, grain "purchases" are listed by village, with the various tenants of that village from whom grain was acquired listed together; the majority of the names given occur in these sections. Finally, a few individuals are mentioned on their own account, with their location given but not grouped together with other tenants of the same area.

Of the five names given as farming grain tithes from the priory in 1495/6, four occur in the database as supplying goods to the priory, and three of these have a location given in the database which matches that of the tithes that they were farming, implying a strong local link. John Pattonson, who paid the bursar £1.13s.4d. in 1495/6 for the Aycliffe grain tithe, also supplied 20 ells of linen in 1484/5 (when his location was not specified, since locations are not given in the cloth accounts) and 12 hens in 1495/6, when he was specified to have been "of Aycliffe".

Richard Taylor and Thomas Denom jointly farmed the Coatsay Moor tithe from the bursar for £2.0s.0d. in 1495/6. Both names appear in the database several times, often specified to have been from Coatsay Moor. Richard Taylor is a name which appears nine times in all, associated with several different places and none, but four of these references are specified to have been from Coatsay Moor, two in 1495/6 (when he sold 20 geese and 4 piglets to the cellarer) and two in 1504/5 (when he

supplied a further 17 piglets and one ox). Four located references also exist for Thomas Denom, along with a further two where no place is specified (for linen in 1487/8, and capons in 1467/8). In 1485/6 he supplied the cellarer with two cattle, and in 1504/5 with 20 geese, 16 hens and one ox.

These are clearly examples of very strong matches between the grain tithe farmers and the commodity suppliers recorded in the database. In addition, however, two other tithe-farmers are mentioned in the 1495/6 bursar's account, Robert Johnson who paid £1.13s.4d for the Newbiggin and Aldin Grange tithes and Richard Younger who paid £6 for the Redworth tithe. The latter name does not appear in the database at all, whilst the only occurrence of a Robert Johnson comes in 1505/6, supplying 28 ells of hardyn. No place is mentioned, but this is standard for cloth purchases and so this could be another link, but it is not possible to tell. Three out of five is a clear majority of matches, but on so small a sample size that little can be deduced from this.

Meat, fish and other commodities

Grain was by far the most important of the commodities in which rent was paid, but other commodities, notably meat and fish, were also prominent in the rentals. In 1495/6, 91 tenants paid their rent partially or entirely in livestock, while fish was used by a total of 72 tenants (53 from South Shields and 19 from elsewhere), compared with 115 tenants who paid their rents using an element of grain.²⁵² However, unlike the grain rents the meat, fish and sundries received by the priory in this way did not account for virtually all of its provisioning requirements. A comparison of the 1495/6 rental payments made in meat, fish, honey, oil and so on with the purchases of such commodities recorded in the bursar/cellarer indenture for

²⁵² Lomas, 'Priory and its Tenants', pp.118-9; Piper and Lomas, *Rentals*, pp.145-9.

that year shows that only around half of the total amounts of these goods bought by the priory were acquired in this way.

A total of 55 placenames are mentioned in the bursar/cellarer indenture as supplying meat, fish and sundry comestibles to the priory in 1495/6, and most of these places also appear in the 1495/6 bursar's rental. However, eleven places from which the priory sourced such goods do not appear in the rental at all, whilst the identification of a further four is uncertain. Of the 40 places which are common to both sources, all but two, Farne and Holy Island, have payments in kind made to the priory listed in the rental; and of the 38 places for which such payments are recorded, 23 have at least some of their payments made in commodities that are also listed in the indenture as having been bought from them, while the remaining 15 have none of these commodities mentioned in the rental. In other words, a total of only 23 out of the 55 places recorded in the bursar/cellarer indenture as supplying foodstuffs other than grain to the priory (42%) had at least some overlap between their rents and their sales to the priory, in striking contrast to the near-exact correspondance between the two seen for grain.

Only a single manor, Burdon, shows an exact correspondance between the goods received by the priory listed in the rental and the goods bought by the priory from that place as recorded in the bursar/cellarer indenture. The acquisition of three capons from Norman Maynerd at a value of 9d. is noted in both documents, whilst no other goods were recorded as coming from Burdon and no other rental payments from that place were made in kind.²⁵³ Slightly less rare was the situation at Chilton, where the rental entries correspond exactly with entries in the bursar/cellarer indenture, but where a number of other goods not noted in the rental were also acquired from the

²⁵³ Piper and Lomas, *Rentals*, pp.168-9.

village, presumably under market conditions. The goods other than grain paid in the rental by Chilton tenants comprised an ox worth 8s.0d. from William Maltby and an ox and a cow, worth a total of 16s.4d., from Thomas Kay.²⁵⁴ The bursar/cellarer indenture, meanwhile, notes these acquisitions alongside the additional purchases of ten hens and twelve piglets from William Maltby, a calf from Thomas Kay, and twenty piglets from a Thomas Lax, whose name does not appear in the rental. This pattern also occurred at Monk Hesleden and at Newton Ketton.²⁵⁵

More commonly, there was a degree of correspondance but with some additional items in the rental or in both the rental and the indenture. From Cowpen Bewley, for example, the bursar/cellarer indenture noted only the purchase of £1.8s.0d. – worth of cockles and mussels, whilst the rental recorded receipt of this item, but also of six pigs, worth a total of 13s.0d., from two other tenants.²⁵⁶ Similarly, the indenture records only eight gallons of honey, worth 6s.8d., from Wardley in Jarrow, whilst the rental notes that Thomas Hilton paid his rent using this, together with 40 ewes, 40 lambs and 3 cows.²⁵⁷ In both cases, the additional items mentioned in the rental but not in the bursar/cellarer indenture are livestock, and the discrepancy between the two documents suggests that these animals were received as breeding stock for the priory's farms rather than either as dead meat or as animals intended for immediate slaughter and consumption. A similar situation applied at several other places, notably at Aycliffe, Billingham, East Merrington, Ferryhill, Newton Bewley and Westerton, with the addition of several items which appeared in the bursar/cellarer indenture only implying that these were bought via normal market

²⁵⁴ Piper and Lomas, *Rentals*, pp.175-6.

²⁵⁵ Piper and Lomas, *Rentals*, pp.156-7, 170.

²⁵⁶ Piper and Lomas, *Rentals*, pp.157-9.

²⁵⁷ Piper and Lomas, *Rentals*, pp.138-9.

transactions.²⁵⁸ In addition, however, some fish appears in the rental without being listed in the bursar/cellarer indenture, which is highly unlikely to have been breeding stock. For example, George Williamson of Gateshead used several hundred sparring as part-payment of his rent in 1495/6, yet no fish at all is mentioned in the indenture in connection either with Gateshead or with a supplier named George Williamson. Similarly, some 'surplus' fish occurs in the rental from Harton, Nether Heworth and (especially) South Shields. It is possible that this fish, otherwise unaccounted for in the bursar/cellarer indenture, might be referred to in the mention of payments to fish purveyors in that document,²⁵⁹ although the quantities involved do not seem large enough to account for the size of these puzzling payments, and there is no suggestion in the rental that this 'surplus' fish paid towards rents was acquired differently or via particular agents.

There were also some places for which there is only a small degree of overlap, or even very little in common between the goods or livestock received as rent payments and the goods bought by the cellarer for the priory's consumption. This situation occurred both at places that were of only minor importance and at places that were major suppliers of the priory. An example of the former was Aldin Grange in Durham, from which a boar worth 9s.0d. and eighteen lambs worth a total of 15s.0d. were received as part payment of William Cliff's rent in 1495/6.²⁶⁰ In the bursar/cellarer indenture for that year the boar is recorded and the lambs are not, suggesting that they were intended to be used as breeding stock, but in addition the cellarer purchased twelve ewes and two oxen from William Cliff. At Coatsay Moor, part of Heighington, there was no point of comparison at all between the goods bought by the cellarer in 1495/6 – piglets, capons, geese and hens – and the single

²⁵⁸ Piper and Lomas, *Rentals*, pp.162-8, 172-82.

²⁵⁹ See chapter two, pp.50-2

cow received as rent.²⁶¹ Even the suppliers of these goods were different, the cow being paid by one Thomas Denom from whom no goods were sourced by the cellarer, although a John Denom of Coatsay Moor does appear in the indenture supplying capons, hens and piglets that year. At East Rainton, an important supplier of the priory, there was again no match between the goods supplied to the priory as recorded in the two documents; the bursar/cellarer indenture recorded the purchase of capons, hens, piglets and calves from there, whilst only cows are recorded as having been used in part payment of the East Rainton rents.²⁶² In this case, however, the individuals named in the two sources do coincide.

Sources of Supply: Methodology

An analysis of the locations at which the priory's purchases were made, or of the geographic origin of the goods bought by the priory, is hampered by two things. First, the distinction, if any, between where an item was bought and its ultimate origin is not made in the accounts; where a location is given, it is usually indirectly associated with the commodity in question, stating that the item was bought 'from [the supplier's name] of [placename]'. Very occasionally it is explicitly stated that the purchase was made 'at [placename]', usually instead of giving a supplier's name; and sometimes, usually with imported goods, the description of the commodity involved includes mention of its place of origin. Examples of the latter include Bay salt, Flemish cloth and the distinction between Spanish and Weardale iron.²⁶³ The database of the priory's purchases used for this study contains information for a total of 3345

²⁶⁰ Piper and Lomas, *Rentals*, p.183.

²⁶¹ Piper and Lomas, *Rentals*, p.171.

²⁶² Piper and Lomas, *Rentals*, p.151-2.

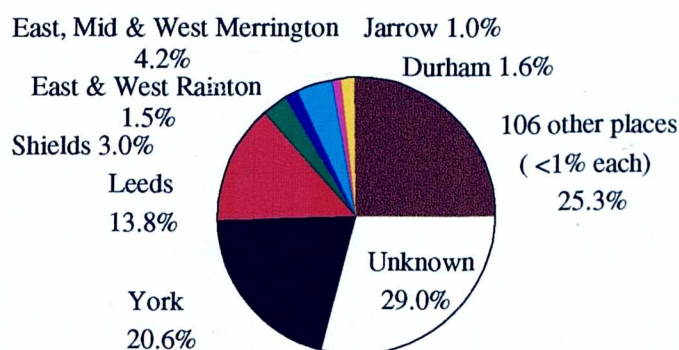
²⁶³ In the case of iron these terms may not have been intended as an exact description of origin, but rather as a means of making the distinction between the local and imported product. M.Threlfall-Holmes, 'Late Medieval Iron Production and Trade in the North-East', *Archaeologia Aeliana*, 5th Ser., XXVII (1999), p111.

transactions. Of these, there is no supplier information at all for 234 (7%). A further 263 (8%) have only limited information: 59 transactions say they were made “at [place]”, 44 “from the tenants of [place]” and 160 are from individuals who are not named but are identified by the office they hold, such as ‘the master of Farne’, or ‘the vicar of Easington’. The remaining 2848 transactions, 85% of the total, mention an individual supplier by name, although by no means all of these are given associated locations in the accounts. Locations are mentioned for 49% of all the databased transactions, whilst in 51% of cases the location is unknown. The 1632 transactions for which a place is stated include 87 made with office holders who are identified by the place with which their office was associated, the 44 transactions involving the tenants of a particular place and the 59 transactions made “at [place]”. The remaining 1442 transactions for which a placename is given have a named supplier also given, and these account for 42% of total transactions and 51% of those transactions for which an individual supplier is named. It follows that an analysis of the locations from which the priory acquired goods can only discuss around half of all transactions, although for some commodities more information is available.

Looking at the information by value rather than by number of transactions immediately changes the emphasis to be placed on unstated locations. Only 29.0% of the total amount spent by the priory recorded in this database was spent at an unspecified place. The largest shares were the 20.6% spent at York and 13.8% at Leeds, virtually entirely accounted for by the high-value livery cloth purchases made at those towns over this period. Other than these, only five other places had more than a 1% share of this expenditure: Shields (3.0%), the Raintons (East and West jointly: 1.5%), West Merrington (2.6% in its own right: the other Merringtons together

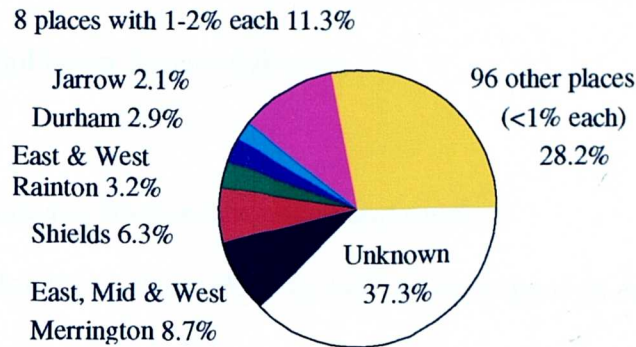
accounted for a further 1.6%), Jarrow (1.0%) and Durham itself (1.6%). The other 106 places each received less than 1% of this expenditure.

Fig. 44: Locations at which the expenditure of the priory which has been recorded in the database used in this study was made



These results are clearly skewed by the inclusion of the high-value cloth purchases made at major marketplaces, which themselves accounted for over half (51.5%) of the spending included in this database. When these purchases are excluded from the analysis four places (Halifax, Leeds, London and Yorkshire) disappear from the list of locations supplying goods to the priory, although York remains, supplying a small amount of fish. On this reading of the data, 37.3% of expenditure was made at an unstated place, a proportion still just low enough to make further investigation worthwhile. The places which were notable before now stand out more prominently: 8.7% was spent at the Merringtons (5.3% at West Merrington), 6.3% at Shields, 3.2% at the Raintons, 2.9% at Durham and 2.1% at Jarrow. A further eight places took between 1 and 2% (Aycliffe, Billingham, Esh, Ferryhill, Hartlepool, Newton Ketton, Sunderland and Southwick), leaving 96 other places mentioned in the accounts with less than 1% of the priory's spending each.

Fig. 45: Locations at which the expenditure of the priory which has been recorded in the database used in this study was made, excluding cloth purchases



As the effect of the removal of the cloth purchases from this analysis demonstrates, there was a clear distinction between the commodities purchased primarily via market transactions and those acquired mainly or in significant proportion via the priory's residual tenurial networks and tenurial relationships. Purchases of the former were characterised by large orders being made at the main towns of the region; the sources of supply for goods bought primarily via market transactions are discussed in the following chapter. In contrast, local agricultural produce was acquired from a wide variety of suppliers scattered across the region of the priory's influence, and this pattern applied to purchases of such commodities as grain and livestock whether the particular transaction under consideration was in fact a purchase made under market conditions or a rent or other payment made to the priory in kind. In other words, the distinction to be made when considering the geographical distribution of supply is between types of goods rather than strictly between the way in which an individual transaction was made. Agricultural produce

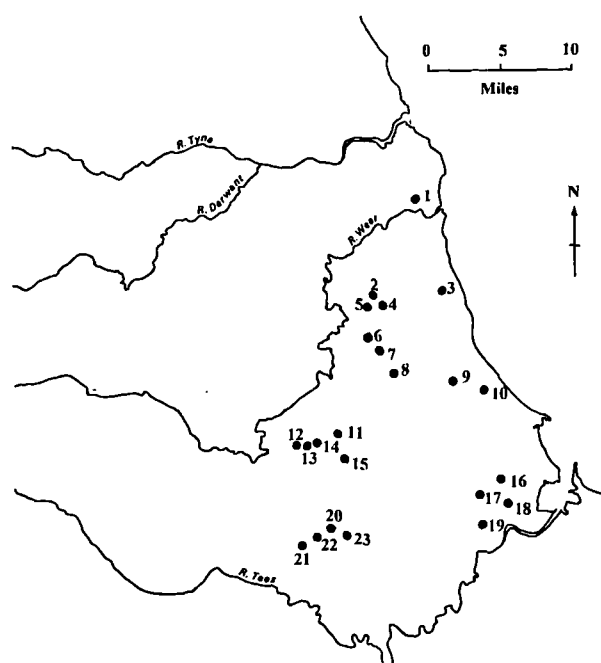
such as grain and livestock, of which roughly half was purchased and half acquired in lieu of monetary payments owed to the priory, was almost all sourced from the Tyne/Tees region, whereas imported and manufactured goods (as will be seen in the next chapter) were almost all sourced from towns even in the few cases where such goods were supplied on the tenorial basis.

The geographical distribution of agricultural produce

The following analysis plots the total amount spent on each commodity for each placename given in the accounts. For grain this comparison has been made for 1495/6, whilst for the commodities recorded in the bursar/cellarer indentures the comparison has been made across the sample years included in the database (1465/6, 1467/8, 1474/5, 1485/6, 1495/6, 1504/5 and 1515/6). The categories into which the purchases have been divided for the purposes of this analysis are grain, poultry, pigs, cattle, sheep, herring, dogdraves, salmon, miscellaneous fish (a category which includes unspecified fish, various freshwater fish, eels, seals, shellfish), and miscellaneous other foodstuffs (butter, fat, green peas, etc.). In addition, a more detailed analysis has also been carried out, in which the individual commodity names (such as capons, hens, geese and so on within the overall class of poultry) have been cross-referenced with the same location data, the value being measured in this case being the total number of each item bought. This data shows the geographical distribution of the various types of agricultural produce and fish acquired by the priory. Two main points emerge from this, the first being the large number of places from which each type of produce was sourced and the second being the slightly different areas which can be seen supplying different products.

As might be expected, the grain acquired by the priory came from a wide range of places within the area defined to the north by the river Wear and to the south by the river Tees. Grain was not acquired from the priory's more distant manors such as those on the Tyne or in Weardale or Derwentdale, but significant quantities were acquired from as far afield as the area around Billingham, which lies 26 miles from Durham as the crow flies and rather more by road.

Fig. 46: Locations from which the priory acquired grain in 1495/6



Key to grain map: modern place-name (name in accounts if different)

1	Southwick	13	Kirk Merrington (East Merrington)
2	East Rainton	14	Middlestone (Mid Merrington)
3	Dalton	15	Chilton
4	Moorsley	16	Newton Bewley (Newton)
5	West Rainton	17	Wolviston
6	North Pittington	18	Cowpen Bewley (Coupon)
7	South Pittington	19	Billingham
8	Shadforth	20	Aycliffe
9	Castle Eden (Eden)	21	Newton Aycliffe (Newhouse)
10	Monk Hesilden (Hesilden)	22	Newton Ketton
11	Ferryhill (Fery)	23	Coatsay Moor
12	Westerton (West Merrington)		

Virtually all of the grain acquired by the bursar is associated with a location in these accounts, a fact which emphasises the close connection between the priory's grain supply and tenurial relationships. No single place dominated the priory's grain supplies, but Ferryhill was the most prominent, supplying 9.5% of all the grain purchased by the bursar. This was closely followed by Pittington (9.4%), Billingham (8.1%), Newton Bewley (7.8%) and Wolviston (7.6%). East and West Rainton supplied 8.5%, split roughly equally between them, whilst the three Merringtons supplied a total of 7.6%, with the majority (4.7%) coming from East or Kirk Merrington. Slightly less was supplied by Monk Hesleden (5.8%), Dalton (3.1%) and Aycliffe (2.8%), whilst the remaining places each supplied under 2% of the priory's requirements. These places are shown on the above map (fig. 46).

The first thing to note in looking at the data for produce other than grain is that a great many acquisitions were made without the location being specified in the account. It is perhaps more surprising that in many cases this unknown classification is not an overwhelmingly large proportion of the total number of transactions. Rather in several cases, notably for fish and birds, well over a half or two-thirds of acquisitions can be associated with a placename. Those categories for which the majority of the placenames are unknown, however, can clearly have few conclusions about location drawn from them.

Of the top-level categories looked at in the first analysis, poultry is by far the most clearly "located" classification, only 11.7% of the total value of this category going to unspecified locations. Cattle and pigs are medium, 24.4% and 40.6% respectively being unassociated with a specific location. Sheep however are not reliably located, 76.7% of acquisitions by value having no placenames specified. For this reason sheep have been excluded from the following analysis. Of fish, dogdraves

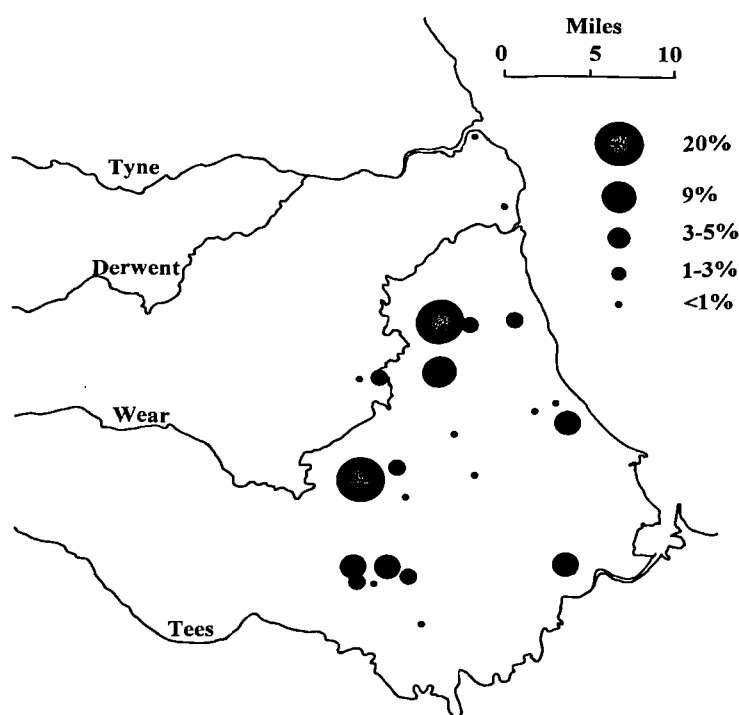
are reasonable at a level of 25.7% of acquisitions being unlocated, as are salmon at 33.4%. Miscellaneous fish has a place unspecified for 43.0% of the value of transactions, whilst herring again does not bear analysis being 62.0% unlocated. Miscellaneous food is 69.8% unspecified, and the more detailed commodity analysis is of more use here.

An analysis of the placenames that are mentioned in association with purchases of poultry reveals no clear preference for any one location, but rather a succession of small purchases being made in a total of 46 different places. Some of these do form groups of villages which can reasonably be counted together, notably the Merringtons (East, Mid and West Merrington, now known respectively as Kirk Merrington, Middlestone and Westerton) and the Raintons (East and West). These two groupings received nearly 40% of the priory's total poultry expenditure between them, a total of 20.9% being spent at the and 19.9% at the Raintons. The remaining 48.8% which is associated with a location was widely distributed over 41 other places, of which the most prominent were Pittington (8.7%), Easington (4.5%), Aycliffe (3.9%), Billingham (3.8%) and Heighington (3.0%).

When these places are plotted on a map of the area no particular geographical pattern emerges other than the very general points that these places are all between the Tyne and the Tees, and are virtually all priory lands, although a certain tendency for poultry suppliers to be grouped to the west of the region may be seen. Further analysis at the more detailed commodity level reveals a similar picture. There are no great centres of specialism supplying all or most of the priory's requirements for any one commodity, although some villages do only appear to be supplying a small range of goods. For example Heighington supplied only geese to the priory in these years, so may perhaps be considered a goose specialist; but the 108 geese supplied accounted

for only 5.6% of the priory's total geese acquisitions, being outweighed by transactions involving several other villages. In particular, 366 geese were acquired from the Merringtons and 495 from the Raintons. It seems more likely that Heighington was simply a small supplier of the priory in general, and maybe a small village with a not very mixed economy, rather than a specialist in any significant sense of the word. Similarly, it does not appear to have been the case that the more prominent Merringtons and Raintons were poultry specialists, rather that they were major suppliers of the priory in general.

Fig. 47: Map showing the distribution of the priory's poultry purchases, 1465-1515



Omitted from the map as either outside the mapped area or invisible since contiguous with another mapped place are Eastrington, East Yorkshire and St.Margaret's Chapel (all 3-5%) and Wiralshire and St.Oswald's Church (both <1%). A location is unstated in the accounts for 11.7% of poultry purchase

A similar picture of general sourcing of livestock from a wide variety of places with no strong locational bias may be seen for the priory's purchases of pigs and cattle. In the sample years looked at here, cattle for which a location was given in the accounts were supplied from a total of 66 places, and these transactions accounted for 75.6% of the total amount spent on cattle by the priory in these years. The place of purchase was unstated for a further 23.5%, whilst the remaining 0.9% was specified only to have been spent *in foro*; perhaps Durham market is implied. The sources of cattle were even less concentrated than was the case for poultry, only three places providing more than 3.5% of the total: the Merringtons (18.9%), the Raintons (5.3%) and Durham itself (6.8%). A further five places provided between two and three per cent of the priory's requirements (Ferryhill 3.2%, Newton Ketton 3.1%, Esh 3.0%, Aycliffe 2.8% and Billingham 2.0%), with the remaining 58 places supplying under two per cent each, and in most cases well under one per cent.

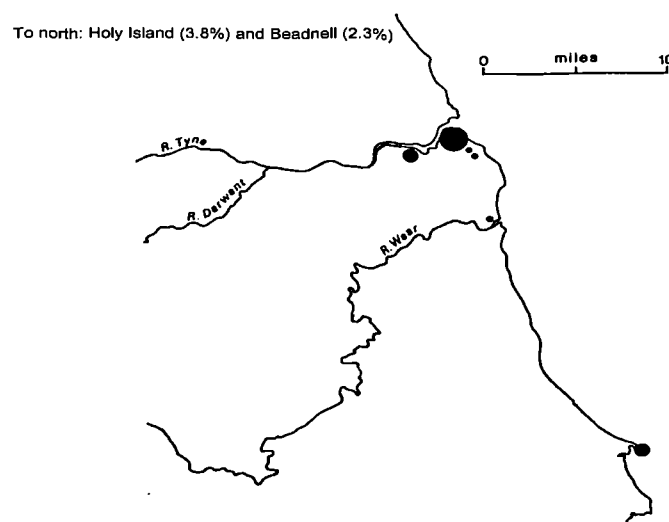
Pigs were acquired from slightly fewer places, 46, although this may be a result of the higher level of unspecified locations found here. In all, a location is specified for 62.4% of pig transactions by value, 36.5% had no location given and 1.1% were purchased *in foro*. The priory's pig sources show a similar low level of concentration to that found for cattle; only seven places provided more than two per cent of the priory's needs each. As usual, the Merringtons and Raintons predominated, with 12.4% and 8.2% of the total value of pigs acquired by the priory being accounted for by supplies from those two areas respectively. In addition, Billingham accounted for 6.0%, Aycliffe 3.6%, Durham 3.0%, Monk Hesleden 3.0% and Ferryhill 2.2%. Although sheep have so few locations given that an analysis would be misleading, it may be noted that, in addition to the 73.9% the amount spent by the priory on sheep for which no location was given, 2.9% was specified to have

been spent *in patria* and none *in foro*, in marked contrast to the terminology used for cattle and pigs alike. Whether this reflects a different nature of transaction is unclear, but it may simply have been the case that sheep tended not to be brought to market but were sold from the field. It may well also be the case that the high level of unlocated transactions found here indicates that a much higher proportion of the sheep acquired by the priory were purchased in market transactions rather than being supplied via tenurial links, since it would be more likely that place names would be specified in the accounts when they were intimately bound up with the transaction, as was the case when goods were supplied by tenants in lieu of rents.

Even fish, a class of goods which might have been expected to have been very much more localised than livestock, were supplied from 32 stated places, in addition to the 41% overall which was of unstated origin. There was some degree of clustering, with 19% of the fish acquired by the priory in these years coming from South Shields, 6.5% from Jarrow, 5.5% from Hartlepool and 3% each from Holy Island, Southwick and Sunderland. However, a greater degree of geographic specialism emerges if individual fish types are looked at instead of the class of fish as a whole. Dogdraves, a type of cod which formed one of the staple ingredients of the fish part of the monks' diet and which accounted for 36.5% of the amount spent on fish by the priory, were unsurprisingly all supplied from the coast, primarily from South Shields. There were also many fewer different places listed in association with these acquisitions than was the case for poultry or other meat. In all, 25.7% by value of the dogdraves acquired by the priory in this period were unlocated, 38.6% were from Shields, and the remainder from only nine other locations: 9.8% from Jarrow, 9.5% from Hartlepool and between 0.5% and 4.1% each from Beadnell, Farne, Harton, Holy Island, Wearmouth and Westoe. Notable here are the much more northerly Holy Island, Farne and Beadnell,

especially Beadnell which was not a place belonging to the priory. The distribution of supplies between these sources was not static over the seven years looked at here. For example, the appearance of Beadnell in these accounts was almost entirely accounted for by the 600 dogdraves supplied from there in 1467/8, whilst Hartlepool appears only twice, providing 180 dogdraves in 1467/8 and 740 in 1474/5. Whilst the fact that a quarter of the dogdraves supplied do not have any location mentioned in the accounts prevents any firm conclusions about the changing location of supplies being drawn, it would seem likely that the South Shields fish formed the bulk of the priory's supply and that this supply was supplemented as necessary by purchases or ad hoc rental payments from elsewhere.

Fig. 48: Map showing the distribution of the priory's purchases of dogdraves, 1465-1515



The priory's herring supplies were characterised by an even smaller number of sources, although unfortunately a much larger proportion of these acquisitions are unlocated: 56.2% in the case of white herring and 71.5% for red herring. (As noted for sheep, it is possible that this might indicate a higher proportion of market purchases operating here.) Of the remaining 43.8% of white herring supplies with which a location is associated, just over two-thirds, 30.3% of the total, came from South Shields. This represents 45 barrels out of a total of 148.5 barrels acquired over this period. Much smaller amounts came from four other places: ten barrels from Jarrow, six from Hartlepool, and two each from Newcastle and Harton. Of the 28.5% of red herring for which a location is given, supplies from South Shields again predominated although by a far smaller margin, accounting for 31.3% of the herring for which a location is given in the accounts. Again, only four other placenames are mentioned: Sunderland (22.4%), Jarrow (21.2%), Hartlepool (19.0%) and Harton (6.1%).

Turning to salmon, which formed a substantial but not staple part of the monks' fish diet, the pattern is somewhere between those seen so far for the staple varieties of fish, that is for dogdraves and herring, and for meat. The proportion of the priory's salmon which is unassociated with any placename not prohibitively high, at 33.4%. The general picture is of several small acquisitions from a total of sixteen different places. Of these, four or five bear a larger part, with the most prominent being Southwick, supplies from which accounted for 16.8% by value of the salmon acquired by the priory in this period. Southwick is followed in importance by Berwick (8.0%), Sunderland (7.9%), Holy Island (7.4%), Gateshead (5.9%), Shoreswood (in Norham, Northumberland) (5.7%) and Norham (4.9%). Lesser amounts were spent at the other places mentioned: Westoe, Monkwearmouth, Simonside (in Jarrow), Chester-le-Street, Fulwell, Ryton, Newcastle, Morpeth and 'Marom' (unidentified).

It can be noted that the priory's salmon were sourced from a rather wider catchment area than applied to other fish or meat purchases. Particularly notable in this context is the 8.0% of the total expenditure on salmon by the priory in the years looked at here which was spent at Berwick. When a more detailed analysis is carried out, distinguishing between different types of salmon, it can be seen that all the salmon coming from Berwick and Holy Island was salt salmon (which accounted for 85% of the total salmon supplied to the priory, the rest being fresh). It is tempting to draw the conclusion that salt salmon - generally described as being bought by the barrel, which seem to have contained an average of 28 fish each - was more susceptible to long-distance carriage, but it should also be remembered that since salt salmon predominated in the priory's supply, it might be expected similarly to dominate that sourced from outside the immediate locality. Fresh salmon certainly came from as far afield as Morpeth, where four were bought in 1467. Others came from Shoreswood, Ryton, Cornhill (in Norham, Northumberland) and Sunderland, but the majority of the salmon specified to have been fresh is not associated with a location in the accounts. It might be speculated that it was locally -caught, perhaps in the priory's fish-weirs on the river Wear below the cathedral.

Miscellaneous other fish, including shellfish and freshwater fish, accounted for the remaining 10.5% of the amount spent on fish by the priory. Only thirteen places are mentioned in connection with the supply of such goods, whilst 42.6% of transactions by value had no placename specified in the accounts. The main places from which such miscellaneous fish were supplied were Cowpen Bewley (16.4 %) and Farne (14.5%). Cowpen Bewley was the major supplier of cockles and mussels to the priory, and indeed supplied little else. One cockle and mussel transaction is recorded in each of the sampled bursar/cellarer indentures, and on only one occasion, in

1504/5, was this commodity acquired not from Cowpen Bewley but from nearby Billingham instead. Cowpen Bewley is only recorded on two occasions elsewhere in the databased account entries, supplying a pig in 1467/8 and six piglets in 1485/6. The range of goods supplied by Farne island was similarly limited in extent. The miscellaneous fish supplied by Farne over this period consisted of a total of nineteen seals and dolphins, whilst the only other transaction in which Farne participated in these years was the supply of 360 dogdraves to the priory in 1467/8. In addition to the seals and dolphins specified to have been from Farne, 26½ other seals and dolphins were acquired by the priory in these years. Of these, 23½ were of unstated origin, two came from Beadnell and one from Wearmouth.

Whilst it was to be expected that the priory would consume a greater proportion of fresh fish than it might otherwise have done due to its location on a river and near to the coast, preserved forms of fish were also acquired in large numbers. Although the number of entries for such goods for which a location is specified is severely limited, there is some evidence to suggest that these were predominantly source from the major market towns, and were probably bought via market transactions rather than using the tenurial model. Eels were normally bought salted, although fresh eels also frequently appear in the priory accounts, but virtually all eel purchases have no placename given in the accounts. The only two entries which do include a location are for purchases from Hull and Newcastle respectively. Similarly, of the ten stockfish (ie, dried cod) transactions recorded in these accounts, only three have a location specified and those three relate to transactions at Hull, York and Newcastle respectively. The latter was the only purchase of fish made at York in these years, whilst the only other fish supplied by Hull was a barrel of sturgeon, and by Newcastle two barrels of salted herring, again preserved forms of fish.

Finally, of the miscellaneous other foodstuffs bought by the priory over this period two, honey and oil, have locations associated with them in these accounts, although for both more than half of the acquisitions have no location specified. The first of these, honey, was 63.7% unspecified, whilst a further 21.2% of purchases were noted only to have been made *in patria*. Locations given for the remaining 15.1% of purchases were ‘Caldronley’ (unidentified), Hebburn, Beaurepaire, Consett, Durham, Follingsby (in Jarrow), Holmeside (near Edmondsley), Ludworth, Muggleswick, Newton Bewley, Wardley and West Rainton. The pattern, insofar as it can be ascertained from such a small sample, was therefore for honey to come in small parcels from widely dispersed priory lands. Clearly, however, the two-thirds of the honey acquired by the priory for which no location was specified may have followed an entirely different pattern, and may have been the result of market transactions. It should be noted that only a single instance of honey being used to pay rent occurs in the 1495/6 rental, involving eight gallons supplied by Thomas Hilton of Wardley (in Jarrow).²⁶⁴ The picture for oil appears to have been rather different. Just over a quarter of oil purchases had no location specified in the accounts, whilst one barrel, representing around 5% of the priory’s oil purchases, was acquired from Nether Heworth. The remainder was bought only at the region’s sizeable towns (Gateshead, Hull, Newcastle and Durham itself) indicating that this commodity was bought primarily by market transactions.

Conclusion

The tenorial system of purchasing, then, was used primarily for the staple foods which resulted from local agriculture and fishing, rather than for imported,

²⁶⁴ Piper and Lomas, *Rentals*, p.138.

manufactured or processed goods, or for high-value goods bought only occasionally, such as fresh-water fish. It was most prevalent for grain, almost all of which was supplied to the priory or sourced by the priory in this manner. Cattle, sheep, pigs, poultry and some seafood such as dogdraves, cockles and mussels were also sourced substantially from the priory's tenants, though for most of these goods only around half were technically bought using this method, i.e. were paid for by the priory by being offset against rents owed, and the rest was bought from the same individuals but on the market principle.

The tendency of the priory to buy such goods from its tenants is not in itself surprising, since much of the surrounding area was owned by the priory and so simple availability would have forced some such pattern even if relations between the priory and its tenants had been exceptionally bad. However, the interrelationship between priory and tenants seen here was exceptionally close. In the first place, the extent to which such goods were bought almost exclusively from tenants does suggest a closer relationship than mere expediency would necessarily demand. More importantly, the evidence seen here shows that such a relationship was actually designed into the structural framework of the priory's purchasing and accounting systems. Finally, the variation seen in the ways in which tenants' rental payments were paid from year to year and the lack of any clear pattern in such changes suggest that neither party to this arrangement was abusing the system. That is to say, the priory does not appear to have used its influence to insist upon goods when prices were high and cash were prices were low, and neither do the tenants seem to have been attempting the reverse. It is not possible to ascertain from the blunt lists in the rentals exactly what negotiations or decisions led to the payments that were made, but it would appear to have been the case that the tenants had considerable freedom of choice in how to pay

their rents and that the priory may have indicated its preferences from time to time but either did not or could not enforce compliance. Such a system must have been based upon goodwill and personal relationships, and the fact that it was still in place at this period suggests that it worked.

Nevertheless there was a limit to how useful this system could be. The market was still needed throughout the priory's life both to supply those goods which tenants could not or did not produce, or to purchase top-up supplies of commodities which were primarily supplied via the tenurial system. Such supplementary supplies were normally needed to some extent from year to year because of natural fluctuations in the exact amounts of any one commodity rendered by tenants in a system which did not strictly regulate the goods owed by each individual, but the market was also a safety net which could be used to acquire a supply of goods from outside the region when local conditions or disease caused supply failure on the priory's lands. This issue of inter-regional trade and the related question of regional price and supply variations will be looked at in the following chapter on the market system of supply, which also addresses more general thematic questions such as the issue of transport and the carriage of goods.

Chapter Five

Market Purchasing

Introduction

Whilst many goods were acquired by the priory via the system based on tenurial relationships described in the previous chapter, many were also bought via market transactions of a more conventional nature. Most imported and manufactured goods were bought on the open market, and in addition market transactions were used when necessary as a method of topping-up supplies of the local agricultural produce primarily acquired from the priory's tenants in lieu of rent payments. There is thus no clear dividing line between either the goods or the individual suppliers involved in these two methods of supply; the same tenant might supply the priory with two pigs in lieu of rent and sell another to the priory in a market transaction. Nevertheless, the two methods are themselves distinct, and certain goods and suppliers tended to be more closely associated with one or the other. The clearest difference between the two lies in the method of payment used by the priory. The complex double accounting used in the payment of rents in kind by tenants is mirrored in the equally complex web of payments, agents and credit used by the priory when purchasing on the open market, although the extent and details of the latter is much less clearly indicated in these accounts. In addition, the locations at which market purchases were made were clearly different to those from which tenurial payments in kind came.

The fine state of preservation of the priory accounts as a series allows long-term trends in the institutional purchasing practices of the priory to be seen, as well as enabling the actual goods purchased by the priory to be studied. This

chapter takes a thematic rather than a commodity-based approach, examining certain key features of the priory's market purchases using evidence drawn from the purchase of a wide range of goods. The role of purchasing agents, methods of payment, credit, the markets from which the priory bought goods and transport issues are all addressed in turn, with both changes over time and geographic or regional differences being identified and discussed. In the first place, however, it is important to look at the priory's use of the market in relation to the staple agricultural goods which were primarily supplied via the priory's network of tenurial relationships. The first part of this chapter therefore takes the form of a detailed analysis of the grain purchases made by the priory on the open market, a study which emphasises the importance to the medieval market of regional variations in supply and demand.

Market purchases of grain and the regionality of grain prices

The majority of the grain acquired by the bursar each year was received in lieu of rents from priory tenants.²⁶⁵ In addition, however, some grain was bought on the open market in most years; this was usually only a small amount, but occasionally more significant quantities were purchased. Although the information relating to the rent book is only available for very few years, the accounts of the bursars' grain purchases survive for most years, and these suggest that the pattern of purchases seen in the years for which these can be compared with the rentals were typical. Most of the examples of purchases of grain which were market transactions refer to grain bought *in patria* or *in villa et patria*. These purchases tended to be of fairly small amounts, certainly less than

²⁶⁵ See chapter four, p.200.

that coming in from tenants as rent payments: the impression given is of ‘top-up’ supplies being purchased. This interpretation is given further credence by the fact that these purchases are very often made at a higher price per quarter than the mode price in operation in the relevant year – such purchases may well represent additional purchases made towards the end of the year. For example, in 1514/5 the bursar bought 77q. 3b. of wheat and 71q. of barley from various unspecified suppliers in the countryside, quantities which represent only small proportions - roughly 10% and 8% respectively – of the total amount of each grain bought that year. In both cases the price paid for this grain was higher than the year’s mode price for that variety: the wheat was bought for 8s.0d. a quarter, compared to the mode price of 5s.4d. (an increase of 50%), and the barley for 5s.0d. as against the mode price of 4s.0d. (an increase of 25%).²⁶⁶

In addition to such *in villa/in patria* purchases, other transactions in the bursars’ accounts also appear to represent market transactions rather than tenurial renderings. There are often a handful of entries in a year which are charged at a higher price than the mode price for that year, and it may well be the case that these too represent top-up purchases of grain later in the season. This cannot be proven, but it is worth noting that such entries tend to be grouped together in the accounts, and are often towards the end of each section. Furthermore, some of the individuals named as the suppliers in these entries are very unlikely to be the priory’s tenants. For example, just under 25q. of barley were bought from the suffragan bishop in 1513/4, whilst the names of Newcastle merchants are given on three occasions. In 1505/6, the wheat purchases section of the bursar’s

²⁶⁶ Other examples of such purchases in the bursars’ accounts are oats being bought *in patria* in 1515/6, *in foro* in 1482/3 and *in foro et patria* in 1512/3, barley being bought *in patria* in 1514/5, and wheat being bought *in patria* in 1515/6 and 1520/1, and *in villa et patria* in 1512/3 and 1513/4. In each case the price(s) paid were higher than the mode price in the relevant year.

account includes 5q.6b. of wheat from Alan Harding of Newcastle, and 4q. of rye from Edward Baxter. Edward is not identified in the account as being from Newcastle, but was probably the same Edward Baxter who was a prominent Newcastle merchant in this period.²⁶⁷ In 1520/1, the bursar purchased 80q. of wheat from John Brandling and John Tailor, whom he specifically described as being 'merchants of Newcastle' in the entry. Both wheat purchases in these two years were charged at a price higher than the mode price for their years; in 1505 Alan Harding was paid 9s.4d. the quarter compared to the mode price of 8s.0d., and in 1515 the prices were 9s.4¼d. and 5s.4d. respectively.

As can be seen from the dates of the occurrences quoted above, there was a marked increase in the incidence of identifiable market transactions in the second half of this period. This goes alongside a similar increase in the amount of price variation in each year.²⁶⁸ There is of course a danger of entering into a circular argument here, since one of the features by which such transactions have been identified is their tendency to have different, normally higher, prices than the mode price: however, other distinguishing features such as the terms used in the entries are also used to mark out likely market transactions. It seems likely, therefore, that the increase in the amount of price variation is to some extent a factor of the increase in market transactions, rather than the latter being an illusory effect of the former.

The striking exception to this pattern of occasional small top-up purchases being made from local merchants or other suppliers, and by far the starkest example of the reality of market conditions operating in the priory's supply, comes in 1482/3. In this year prices were at their highest peak in this

²⁶⁷ Threlfall-Holmes, 'Provisioning', p.69; C.M.Fraser, 'The Early Hostmen of Newcastle-upon-Tyne', *Archaeologia Aeliana*, 5th Ser., XII (1984), pp.169-70.

period, with wheat costing 13s.4d. and barley 8s.0d. per quarter, both at least twice their average modal prices over this period of 6s.0d. and 4s.0d. respectively. In this year, the bursar bought a very substantial amount of grain from outside the region – 531q. of barley, at the much lower price of 5s.6½d. per quarter, *in partibus Australibus* or ‘from Southern parts’. This purchase, unique in this period, accounted for well over three-quarters of the barley acquired by the bursar that year, and for 71% of the total amount spent by him on barley. It is notable that no carriage charge relating to this grain appears in the account, suggesting either that the much lower cost of the southern grain included the cost of its transport to Durham, or that it was collected by the priory and that this cost was not specifically accounted for.

The only other example in this period of grain being bought from outside the immediate region is much smaller in scale, when in 1507/8 the bursar purchased 4q. of peas and beans at Hartlepool. Though clearly of much less importance, this purchase in fact came about in very similar circumstances to the 1482/3 barley purchase: the price paid at Hartlepool was 4s.0d. per quarter, whilst the mode price being paid by the bursar around Durham was 6s.8d. per quarter, only the second highest price recorded for peas and beans in this period and 188% of the average mode price, 3s.8d. (the highest peas and beans price, 8s.0d., came in the very bad year 1482/3). A similar situation, in which grain shortages explicitly forced the priory to purchase grain on the open market to supplement supplies acquired from tenants, would appear to have occurred just prior to 1438/9, although it is not clear in this instance whether the grain in question was imported from outside the immediate region. In that year the priory

²⁶⁸ See chapter three, pp.108-9.

agreed a schedule of debt-repayment with William Hoton of Hardwick, which included the sum of £23.16s.4d. owed to him by the priory for grain which he had bought for them. The schedule stated that ‘considering the serious burdens incumbent on the monastery this year, [including] purchasing grains at an excessive price’ the total debt would be paid off over the following three years.²⁶⁹

Since grain was a staple food of (largely) uniform quality it is an ideal candidate for a study of price regionality. Much study of grain prices in England has been based upon the figures compiled by Thorold Rogers at the end of the nineteenth century, and this collection of evidence remains important although some more recent studies take a wider tranch of evidence into account.²⁷⁰

However, several criticisms have been made of the quality of Rogers’ evidence. Of particular relevance to the questions under consideration here, of regionalism and the typicality of the Durham price series, is a point made by Lutz: that Rogers’ price series seriously under-represent the North and the West of England, being dominated by prices from the South-East region.²⁷¹ Lutz has compiled separate decennial averages for each of these three regions using the figures given by Rogers, and these demonstrate that grain prices could vary dramatically between regions, not only absolutely over time but also relatively. For example, the average decennial price of grain was higher in the north than in

²⁶⁹ DCM Reg.Parv.II, 100v.-101r.

²⁷⁰ Rogers, *Agriculture and Prices*. Important studies based on Rogers’ figures include Gras, *Evolution of the English Corn Market* and W.Abel, *Agricultural Fluctuations in Europe*, trans. O.Ordish (London 1980). More recent and more widely-based studies include W.G.Hoskins, ‘Harvest Fluctuations and English Economic History, 1480-1619’, *Agricultural History Review*, XII (1964), P.Bowden, ‘Agricultural Prices, Farm Profits and Rents’ in J.Thirsk, ed., *The Agrarian History of England and Wales, Vol. IV, 1500-1640* (Cambridge, 1967), pp.593-695 and D.L.Farmer, ‘Prices and Wages 1350-1500’ in E.Miller, ed., *The Agrarian History of England and Wales, Vol. III, 1348-1500* (Cambridge, 1991), pp. 431-525.

²⁷¹ H.L.Lutz, ‘Inaccuracies in Rogers’ History of Prices’, *Quarterly Journal of Economics*, 23 (1909), pp.356-7.

the south-east of England in four out of the six decades looked at here, but lower in the other two.

Fig. 49: Decennial average prices of wheat by region, 1461-1520²⁷²

Years	South and East	North	West
1461-70	5s.6½d.	5s.7¾d.	4s.10¾d.
1471-80	5s.¼d.	5s.8d.	5s.2d.
1481-90	5s.10d.	6s.11d.	6s.3¾d.
1491-1500	4s.7½d.	4s.3½d.	5s.9½d.
1501-10	5s.5¼d.	3s.11½d.	6s.2d.
1511-20	6s.6¾d.	7s.1¼d.	7s.3¾d.

These problems with Rogers' data were noted by Gras when he used these grain prices for his detailed study of the grain trade in England. He added data from Winchester, but other than that used Rogers' figures as they stood, notwithstanding these issues. Gras concluded that 'an empirical study of the price materials of Rogers indicates the existence of local market areas, that is, districts having a strong tendency towards a differential price level', and he mapped fifteen of these areas onto England.²⁷³ Durham and its environs he classified as area thirteen, with the third highest grain price levels after East Essex and Battle. The cheapest grain was to be found in a broad band between the Upper Severn region, Bristol and East Anglia, with higher prices in the South West, North (Durham and York) and extreme South East.²⁷⁴ The picture of regionalism thus drawn is one which it is tempting to take at face value, but Gras' figures have been trenchantly criticised. Kneisel pointed out that evidence for most areas for most years was lacking, and that Gras' results were counter-intuitive since they

²⁷² Based on table in Lutz, 'Inaccuracies', p.357.

²⁷³ Gras, *Evolution*, pp.38-9, 42, 47.

ignored river corridors which would be expected to produce more consistent grain prices than areas joined only by proximity over land, since transport costs could easily account for the relatively small price differences found between Gras' regions. Kneisel concluded that the regionalism drawn by Gras was illusory, apparently 'formed more or less arbitrarily by drawing neat circles round contiguous areas on the map'.²⁷⁵ It seems, however, that no easy generalisations about regional variations are possible from the data currently available, and that the only way forward is to compare the Durham evidence with a notional English norm. Other historians have identified Durham as a region of high cereals prices. Bowden points out that prices and wages could and did vary significantly from area to area as a result of factors independent of actual harvest quality in a particular year, such as the demand for labour and the geography and climate, and that wheat was expensive in the Durham region since conditions there favoured pastoral husbandry and spring-sown crops instead.²⁷⁶ Farmer adds that barley as well as wheat was relatively expensive in this region, but that in contrast oats were relatively cheap.²⁷⁷

A coherent source of price data for the period after 1480 comes from Hoskins' analysis of harvest fluctuations in the long sixteenth century. Hoskins used evidence primarily from Winchester, Exeter and Lincoln, with some prices also coming from Norwich and London, to give information on a total of 140 harvests. These were classified by price: the harvest in years in which prices were within 10% of the average for the period were designated average; when prices were between 10 and 30% higher than average the harvest was described

²⁷⁴ Gras, *Evolution*, p.47.

²⁷⁵ E.Kneisel, 'The Evolution of the English Corn Market', *Journal of Economic History*, XIV (1954), pp.46-52, esp. p.51.

²⁷⁶ Bowden, 'Agricultural Prices', pp.609-16.

as deficient, or bad when prices were more than 30% higher than the average; when prices were between 10 and 30% less than average the harvest was described as good, and when prices were more than 30% less than the average the harvest was classified as abundant.²⁷⁸ Overall, Hoskins found that the 1480s were a period of bad harvests, with prices in the three consecutive years 1481-3 all being greater than 30% of the average, and the harvest of 1482 being particularly bad, especially in the eastern counties. The 1490s, on the other hand, saw a series of particularly bountiful harvests: according to the classification outlined above, those for 1492-3 were good, 1494-5 abundant, 1496-8 average and 1499 good. The sixteenth century began badly, with deficient or bad harvests in 1500-3, but harvests picked up in the latter half of the first decade, with the price in 1509 being the lowest in 200 years and 1510 also being an abundant year. Overall, the second decade of the sixteenth century was slightly better than average, with harvests average or good from 1513-8, but that of 1519 was deficient and 1520 saw dearth, with prices 53.9% higher than the average.²⁷⁹ Again, regional differences could be striking: 1487, 1504 and 1515 saw average prices overall but a bad harvest in the West, for example.²⁸⁰ Stratton also notes harvest conditions for certain year, and for the years pre-1480 this evidence too is worth considering. Stratton notes that the period from 1463-77 brought a series of good or very good harvests, with that of 1477 being not so good as previously. In 1478 a wet summer apparently caused the grain to be of inferior quality, but the harvest of 1479 was again good.²⁸¹

²⁷⁷ Farmer, 'Prices and Wages', p.447.

²⁷⁸ Hoskins, 'Harvest Fluctuations', pp.29-30.

²⁷⁹ Ibid, pp.31-3.

²⁸⁰ Ibid, p.44.

²⁸¹ J.M.Stratton and J.H. Brown, ed. R.Whitlock, *Agricultural Records, A.D. 220-1977*, (London, 2nd edn. 1978), p.36.

All this information for grain prices and harvest qualities across England in this period can be compared with the figures derived from the Durham bursar's accounts. Wheat prices, the standard measure used in most of the studies referred to above, will be used as the measure of comparison. At the highest level of abstraction, decennial averages for Durham can be compared with those given for England as a whole (using Rogers' figures which are weighted towards the South-East) by Abel. To make the figures comparable, indices are given, where 100 represents the average of each series for this period. The relative changes in each decade are thus compared, rather than absolute prices.

Fig. 50: Comparison of grain price indices at Durham
with those for England overall, 1461-1520

Years	England	Durham	Difference
1461-70	92	98	6%
1471-80	94	93	1%
1481-90	111	134	21%
1491-1500	89	86	3%
1501-10	95	98	3%
1511-20	118	90	24%

The indices used in this table are based on the average grain price in each region for this period. For England figures, which are calculated from those given in Abel, *Agricultural Fluctuations*, p.304, 100 = 22.6 grains of silver per 100kg of wheat. For the Durham figures, 100 = 5.88 pence per quarter of wheat. These bases are different in order to factor out regional variations in absolute grain prices, so that only differences in the size or direction of grain price fluctuations are shown here.

It can be seen from the table above (fig.50) that the proportional movements in grain prices were generally similar, with less than 6% difference

between the two in four out of the six decades examined. However, in the two decades in which grain prices were notably higher in England as a whole the regional difference was striking. In 1481-90, when grain prices were 11% higher than average in England as a whole, the priory paid 34% more than average. By contrast the priory paid 10% less than average in the last decade of this period, when prices overall in England were 18% higher than average. Clearly, therefore, prices in the Durham region were subject to fluctuations and local conditions which could operate quite independently of those affecting the rest of the country.

More detail of how the Durham prices varied with or apart from the average for the country as a whole may be gained by examining individually the years in which particularly high or low prices were current. Using Hoskins' methodology and designating bad or good harvests to be those in which the price rose or fell by more than 30% of the average for this period, Durham may be said to have enjoyed particularly good harvests in 1473/4, 1494/5, 1495/6, 1498/9, 1499/1500, 1509/10 and 1510/1. Bad harvests occurred in 1465/6, 1470/1, 1481/2, 1482/3, 1486/7, 1488/9 and 1505/6. Those of 1481/2 were especially disastrous, the prices in these years rising to 168% and 224% of the average for this period. A comparison of the harvest qualities calculated for the Durham region with those calculated for the rest of the country by Hoskins shows that overall, Durham harvests tended to be slightly worse than those elsewhere. In particular, the dearth of the early 1480s seems to have been even more disastrous in the North than in the rest of England, starting earlier and affecting prices more severely; elsewhere, dearth only hit in 1482/3, when prices rose to 175% of their average level, whereas Durham saw very bad harvests in the previous two years

also, and prices peaked at 224% of the average. However Durham did do better in certain other years, and especially in the early sixteenth century when Durham prices were proportionally lower than those elsewhere in 1498-9 and 1511-20, and notably were good in 1520/1, a year which saw dearth elsewhere.

Some regionality in grain prices was clearly present, therefore, but in a more dynamic fashion than that suggested by Gras. Whilst prices overall do seem to have been somewhat higher in the north, this was not a static pattern but varied as harvests varied from region to region and from year to year. Nevertheless, it is notable that such a strong difference in prices should have existed between Durham and the south in 1482/3, when the harvests in both areas were poor with prices at dearth levels. The explanation for this may well lie in the harvests in previous years. The prices paid by the Durham bursar suggest that harvests in the north-east had been below average for the previous two years, being deficient in 1480/1 and at dearth levels in 1481/2 as well as in 1482/3. Any stored grain would thus have been used up over this period, and this would have exacerbated the effects of the 1482/3 bad harvest, which would usually have been softened by the release of such stored supplies. The granator's accounts for this period show that grain was indeed removed from the granary in 1480/1 and to a greater extent in 1481/2, although unfortunately no figures are available for grain stock movements in 1482/3.²⁸² Hoskins figures for England overall, however (i.e, for the south and east of the country) show an average harvest in 1480/1, a bad harvest in 1481/2 and dearth hitting in 1482/3. The cumulative effect of a series of bad harvest would therefore not have been so severe further south.

²⁸² See Chapter 3, p121-2.

**Fig. 51: Comparison of harvest qualities for Durham
and England overall, 1460-1520²⁸³**

Year	England	Durham	Year	England	Durham
1460			1490	Deficient	
1461			1491	Average	
1462		Good	1492	Good	Good
1463			1493	Good	Good
1464			1494	Abundant	Abundant
1465		Bad	1495	Abundant	Abundant
1466		Good	1496	Average	Bad
1467		Deficient	1497	Average	Bad
1468		Deficient	1498	Average	Abundant
1469		Deficient	1499	Good	Abundant
1470		Bad	1500	Deficient	Average
1471		Deficient	1501	Bad	Good
1472		Good	1502	Bad	
1473		Abundant	1503	Deficient	Deficient
1474		Good	1504	Average	Deficient
1475		Good	1505	Average	Bad
1476		Average	1506	Good	Good
1477			1507	Average	Deficient
1478		Average	1508	Good	Good
1479		Good	1509	Abundant	Abundant
1480	Average	Deficient	1510	Abundant	Abundant
1481	Bad	Dearth	1511	Average	Good
1482	Dearth	Dearth	1512	Deficient	Good
1483	Bad		1513	Average	Good
1484	Average	Good	1514	Good	Good
1485	Good	Good	1515	Average	Good
1486	Average	Bad	1516	Good	
1487	Average	Average	1517	Good	
1488	Average	Bad	1518	Good	
1489	Average		1519	Deficient	
			1520	Dearth	Good

It is clear that, whilst the bursar made small additional purchases of grain in most years to supplement that supplied by tenants in part-payment of their rents, large-scale market purchases were an eventuality reserved for years of dearth. The situation in 1482/3, when grain had to be purchased in southern England to make good the shortfall felt in the Durham region, was unique so far as the priory was concerned in this period and perhaps in this century. The fact that the price in southern England was so much lower than that in the north that

²⁸³ England harvest qualities after 1480 taken from Hoskins, 'Harvest Fluctuations', p.44. Durham harvest qualities are calculated after the same methodology.

buying outside the region was both necessary and worthwhile is particularly interesting, as is the very fact that this was such an unusual event.

Markets

The above discussion of regionality of grain prices, whilst specific to grain, is nevertheless indicative of the variations of demand, supply and pricing in different areas that could apply to all kinds of commodities in this period. Despite these differences, however, it is clear that the priory only sourced grain from outside the immediate region in exceptional circumstances, being largely self-sufficient in all but exceptionally bad years. It might be expected, however, that other commodities such as luxuries, imported or manufactured goods would be sourced from a wider area, perhaps including the major fairs and certainly including London. In fact, whilst to some extent this was the case in an earlier period, one of the major long-term changes that these accounts reveal is the increasing proportion of the priory's business that went to Newcastle merchants over the medieval period, to the extent that the immediate north-east region supplied virtually all the priory's requirements by the beginning of the sixteenth century, with Newcastle assuming an increasingly dominant role within the region.

This may be illustrated by the history of the priory's wine purchases. Margaret Bonney has shown that in the thirteenth and fourteenth centuries, local middlemen supplied the priory with wine which they probably purchased in turn from London wholesalers. By the mid-fourteenth century, the emphasis had shifted to the great fairs of Durham, Darlington and Boston, and by the late fourteenth century to the merchants of Durham, Newcastle, Hartlepool,

Darlington, York and Hull. As early as the first years of the fifteenth century, the majority of the priory's wine came from Newcastle.²⁸⁴ The evidence from the fifteenth century indicates that this trend towards Newcastle continued over the century, with Newcastle merchants claiming an increasing share of the priory's business.

Of the £2255.11s.0d. that the bursar's office is recorded as spending on wine over the 47 years for which totals survive in the period looked at here, 94% was spent with Newcastle merchants. Nearly 6% was spent with the merchants of Hull, and negligible amounts were spent with merchants of York (£36.3s.4d.), London (£17.0s.6d.) and Durham (£9.6s.8d.). The proportion of the priory's trade that was given to York, in particular, had declined noticeably since the first half of the century, when 11% of the bursars' wine had come from that city.²⁸⁵ This reflects the decreasing numbers of York merchants participating in overseas trade over the fifteenth century,²⁸⁶ an important feature of the recession that lasted there from c.1420 to the early decades of the sixteenth century. The pattern of the priory's purchases from York merchants suggests that their increasing focus on Newcastle suppliers was a response, rather than a contribution, to this decline; there was no sudden abandonment of the York market (indeed in 1471/2, 49% of the bursar's wine purchases were made there). In the first half of the fifteenth century, the bursar had occasionally purchased wine not simply at the four towns used in the second half of the century, but also from South Shields and Hartlepool; by the sixteenth century, no wine was bought from even Hull, York

²⁸⁴Bonney, *Lordship and the Urban Community*, pp.169-174; for the wide range of luxury goods available in Durham in the late thirteenth and fourteenth centuries, see also C.M.Fraser, 'The Pattern of Trade in the North-East of England, 1265-1350', *Northern History*, 4 (1969), pp.46, 50.

²⁸⁵Morimoto, 'Demands and Purchases', p.101.

or Durham merchants. Apart from the purchase of a butt of malmsey from London in 1500-1 and 1506-7, Newcastle merchants supplied all of the priory's wine after 1497-8, even the luxury wines such as malmsey which have generally been considered to have been the preserve of London merchants.²⁸⁷

A different pattern may be seen for the priory's purchases of livery cloths, although the north-east as a whole still predominates. For most of the cloth purchases recorded in these accounts no indication of location is given, except the negative evidence of silence which might be taken to imply cloth of local manufacture and/or supply. However, most of the purchases were also of small importance in terms of the quantity or value involved. In contrast, the livery cloths bought by the bursar were of very high value and represented a high proportion of the priory's total expenditure on cloth in each year. The account entries recording these purchases are accompanied in almost every year by an item of expenditure for the carrying of that cloth from the hometown of the cloth merchant (or the place where the cloth was bought if different) to Durham. This makes it clear that these transactions were in fact carried out in the town mentioned, and thus implies that the merchants were in fact residents of the towns associated with them in the accounts, rather than being Durham or Newcastle based tradesmen originally haling from elsewhere. More importantly, the existence of these carriage charges in the bursar's accounts confirms that it is valid to trace the movement of the priory's cloth purchasing by reference to these place names.

²⁸⁶Jennifer I.Kermode, 'Merchants, Overseas Trade and Urban Decline: York, Beverley and Hull, c.1380 -1500', *Northern History*, 23 (1987), pp.51-73.

²⁸⁷Newcastle was the centre of the wine trade for the Northern region by the sixteenth century, sending wine throughout Northumberland and even on occasion into Scotland. A.L.Simon, *The History of the Wine Trade in England*, 2 vols. (London, 1906-7), Vol.2, pp.122-3.

From 1465/6 up to and including 1482/3, the cloth purchased for liveries by the bursar was bought in York. In 1484/5, this cloth was bought in Halifax, and this was followed by three years (out of seven, four being missing) in which purchases were made in London. It should be noted that on one of these occasions the merchant supplying the cloth was specified to be a Colchester man selling in London, the locality of the sale being confirmed by the entry for carriage from London to Durham. From 1492/3 until 1505/6, purchases were made in Leeds. From 1505/6 until 1515/6, no carriage charges are mentioned in the account. In 1515/6 this is explained by the merchant supplying the cloth being one William Myghlay of Durham, and it seems likely that the lack of carriage charges in the intervening years confirms that the William Mydley of 1505/6, the William Midesley of 1507/8 and the William Mildeslay of 1508/9 and the next two years are to be identified as the same man.

The changing location of the bursars' main cloth purchases thus mirror the trend traced by several historians of the medieval textile industry for the focus of clothmaking activity to move from York itself to the West Riding towns over this period²⁸⁸. It is interesting to note in this context that the (remarkably abrupt) changeover found in these accounts was punctuated by an interval of purchasing in London, suggesting that York became an unsatisfactory source of supply before an alternative source in the West Riding had become established. It is also interesting that towards the end of this period cloth was sourced in Durham itself. It would seem likely that this cloth was bought from a middleman, that William Myghlay was a Durham merchant who sourced it from the West

²⁸⁸ This has become virtually a truism in recent discussions on the subject. H.Heaton, *The Yorkshire Woollen and Worsted Industries, from the Earliest Times up to the Industrial Revolution* (Oxford, 2nd edn. 1965), pp.45-47 gives a clear account of the change.

Riding, since we have no record of any large-scale woollen cloth industry in the Durham area in this period.

The pattern for these high-value cloths is rather different from that for wine, since the goods were being bought largely direct from their place of manufacture rather than from their place of import. Two things remain consistent for both commodities however, and for the priory's supply as a whole. In the first place London, whilst occasionally occurring in these accounts, plays only a minor and fleeting part in supplying the priory. Of all the purchases made by the priory over this period, London is mentioned in connection with only a few. In addition to the wine already discussed above, the bursar made three purchases of linen there in these years, buying 41 ells of holland cloth in 1468/9 and 54 ells of 'Flemish' cloth in 1478/9 'at London', and purchasing a further 30 ells of unspecified linen 'from Thomas Ayer of London' in 1494/5. No other mentions of London are to be found amongst the goods looked at here; the majority of the goods purchased by the priory came directly from north-east based suppliers. Although some goods (such as spices) may well have been purchased in London by middlemen and then brought to the north-east to be retailed there, this was not the general pattern as the number and variety of imports into Newcastle implies.

Secondly, the area from which the goods bought by the priory were sourced shrank over this period. For wine the focus shifted increasingly to Newcastle at the expense both of London and of other regional centres such as York, Hull and even Durham itself; for cloth, though the most interesting point to note is the shift in manufacturing activity from York to the West Riding implied by the priory's changing purchases at the end of the fifteenth century, it is also notable that the priory chose to buy such cloth from a Durham merchant after

1505/6. These two trends were common to all the goods purchased by the priory on the open market. Though no purchases from London are recorded in the obedientiary accounts for this period, and none from Boston, Lincoln and so on, in previous years such entries were by no means uncommon.²⁸⁹

The Use of Agents

When purchases were made from a distance, the priory used agents to choose, purchase and pay for goods, and to transmit them back to the priory. Agents were also used in transactions nearer to home, such as in Newcastle. As has been seen, the obedientiaries were labouring under the weight of a wide range of responsibilities, and it would appear that agents were used to save the obedientiary the time which he would otherwise have to spend in finding and bargaining for goods. Although no explicit statements exist in the priory records about the way in which or the extent to which such agents were used, the obedientiary accounts give tantalising glimpses of a comprehensive system of purchasing agents employed by the priory. Evidence for the use of such agents only occasionally appears under the actual commodity headings in the accounts, but the 'necessary expenses' sections of the bursars' accounts include several such references, as do the few surviving bursars' household books.

Most of these references concern the payment of the expenses incurred by the agents, and it is clear from these entries that they could be involved at all steps of the procurement process. In particular, there is substantial evidence for the use of agents in the wine buying process. For example, a typical entry under the bursar's 'necessary expenses' heading, that for 1495/6, reads 'Paid to William

²⁸⁹ Bonney, *Lordship*, pp.169-74. Several examples of such purchases are to be found in Fowler, *Account Rolls*.

Wright and to Richard Wren for their expenses at Newcastle for the purchase and delivery of wine at different times - 3s'. Similarly, in 1487/8 a payment of 14s.0d. 'for the expenses of William Wright and Richard Simpson at Newcastle and Hull' is recorded. Agents such as these were clearly involved in all stages of the wine purchasing process; an entry in the bursar's 'necessary expenses' section for 1535/6 records that Robert Whitehead was paid 2s.7d. 'expenses for choosing wine at Newcastle'.²⁹⁰ As the above examples show, they arranged both the actual purchase and the delivery of the wine to the priory, and perhaps travelled between the different ports to ensure that the priory paid the best prices for its goods. Some of these men were evidently employed on a regular basis, as the bursar's account for 1488/9 includes in the wine purchases for that year the cost of five tuns and one pipe of red wine bought from William Wright and Richard Simpson, 'with their expenses'. William Wright can be seen to have been associated with wine purchasing for the priory for at least eight years, and both he and Richard Simpson appear to have been wine merchants in their own right as well as agents employed by the priory. In general, however, the role of such agents seems to have been solely a facilitative one. None of their names appear in the Newcastle customs accounts as importers, and none other than the two mentioned above appear in the priory records as suppliers in their own right.

Agents such as these were apparently not used in buying some other goods which might have been expected to be similar; no mention of such activity is to be found in connection with spice or imported iron purchases, for example. It is possible that the purchase of wine presented special difficulties for which agents were particularly valuable; in particular, the fact that only two

²⁹⁰Fowler, *Account Rolls*, (Vol.3), p.696.

consignments of wine were shipped to England each year, and that such wine was frequently sold from the boat as soon as it was docked, may well have meant that speed and being on the spot were uniquely important in this case. The large quantities in which wine was bought might also have warranted the use of agents. However, it can be seen that agents were not only used by the priory for the purchase of wine, but also for other high-volume, high-value or perishable commodities. A surviving example of letters patent given to such an agent by the prior demonstrates the wide-ranging role that he fulfilled. This example comes from a slightly earlier period, being dated from Durham on the 1st September 1410. John, the prior of Durham, states that he has appointed John de Hyndley as his attorney

‘to supply and purchase for the prior’s use all necessary grain and victuals as provisions for him and the church of Durham wherever, as seems most advantageous, the aforesaid attorney may travel in England.’

The letter goes on to give John de Hyndley permission to do whatever he chooses in the prior’s name, and calls upon all those who might come across him to let him travel freely and without toll.²⁹¹ Other examples of the use of agents come with high-value cloth for vestments or when large quantities of fresh fish were required for a feast.²⁹²

Such examples suggest a class of men who were professional agents, but more informal contacts could also be used in this way. Several other documents suggest that a similar means of purchasing used by the priory was to ask an employee, friend or acquaintance who was away on business to purchase items for the priory’s use. For example, a letter dated 13th June 1456 survives from

²⁹¹ DCM Reg.Parv. II, 12v.

²⁹² See chapter three, pp.161-2, and below, p.256.

William, prior of Durham to an unknown addressee, apparently in London on business unconnected with the priory, including the request 'I pray you heartily provide for me 2 hogsheads of the best malmsey that you may buy in London'. The recipient of the letter is asked to buy the goods personally and arrange to send them, as his own goods, to his own place in Newcastle-upon-Tyne, and the prior promises that 'what money you pay therefore I shall content you again'.²⁹³ It is clearly expected that this request will be complied with, and the impression is given that such informal arrangements, based on personal relationships and making use of circumstances as they arise, were usual.

Payment for Goods

Other entries in the accounts, and in the household books, demonstrate that payments for goods were also mediated through such men, implying that payment was made at a later date than that on which the purchase was contracted for, a common form of credit, unsurprising when such bulk quantities were involved. The bursar's household book for 1531/2, for example, records that three hogsheads of wine were purchased 'from Master Lawson, through John Bukley...paid through my servant', whilst a further three hogsheads were bought directly from a Thomas Potts, but were paid for 'through Nicholas Newsham'.²⁹⁴ The complex web of payment systems used by the priory also incorporated merchants. There are two examples (both probably from the mid-1450s) of the priory using William Bird, a well-known merchant of Newcastle, as an agent in money-transfers and the use of promissary notes. The first, an undated letter from William, prior of Durham to an unknown addressee, asks for a loan or gift of

²⁹³ DCM Reg.Parv.III, 84r.

²⁹⁴ Raine, *Durham Household Book*, p.49.

money of at least £1.13s.4d., and asks that this sum be paid to William Bird, merchant of Newcastle-upon-Tyne, bearer of the request.²⁹⁵ The second example specifies neither the author nor the addressee, but indicates a complexity of payments which must have been common enough. The letter informs the recipient that William Bird, bearer of the letter, will satisfy him for the full payment of £39.13s.4d, which sum it is trusted he has paid to a merchant of London 'for the bull lately granted at Rome'.²⁹⁶

It is noted in an aside at the end of the letter quoted above that the last time the author wrote to the recipient he had thought that Robert Rodes would be going to London soon, but he is not now sure whether he will be going or not, so William is being used as an agent instead; and this exemplifies the ad-hoc nature of such arrangements. It is also clear that the priory relied greatly upon the discretion of the agents who were used in such transactions. Robert Rodes, who was the prior's steward, was very often used as an agent by the priory, and was trusted with large sums of money. He corresponded with the priory for specific instructions and sent samples for approval, but his own judgement was clearly relied upon a great deal, as has been seen.²⁹⁷ The amount of detail contained within the surviving evidence is necessarily limited because of this, as much was left to the agents' discretion or was entrusted to verbal messages delivered by the bearer of a letter rather than to the letter itself. An explicit example of this is a letter written on the 16th March 1456 to a Mr. Robert Rokke, vicar of St. Lawrence in London, which asks him to provide cloth of gold at prices and qualities most

²⁹⁵ DCM Reg.Parv.III, 87v.-88r.

²⁹⁶ DCM Reg.Parv.III, 88rv.

²⁹⁷ See chapter three, pp.161-2.

approximating what the priory has had before, but to wait until Robert Rodes comes to London with further instructions, which will hopefully be by Easter.²⁹⁸

Credit

The question of whether and to what extent the priory bought goods on credit in this period can also be addressed through the evidence of the household books, although the majority of the entries do not make clear what period of credit was extended.²⁹⁹ For example, the purchases of wine for 1531/2 are recorded without the date of each purchase being given; but each entry is followed by details of how and when payment was made, implying that this was some time after delivery.³⁰⁰ These settlement dates vary considerably, which may simply be a function of wine being bought at intervals throughout the year, or may indicate differing credit periods extended to the monks by the different merchants. Unfortunately, since no dates are given for the original transactions, it is not possible to calculate the length of a typical credit period or to ascertain whether this was paid for by an increase in the original price of the wine.

However, there are some - very rare - examples in the household books of the dates of both purchase and settlement being given, and these make it certain that credit transactions did occur, and that the periods of credit were not uniform. In 1532/3, the bursar purchased a total of 15lb. of sugar from a Master Swynburne on the 6th and the 9th of July, 1532. This was 'settled in the account between us, 1st December 1532',³⁰¹ so that the bursar had obtained nearly four

²⁹⁸ DCM Reg. Parv. III, 88v.

²⁹⁹ Fraser, 'Pattern of Trade', pp.50-1, lists several examples of high-value credit transactions appearing in the obediatory accounts in previous centuries.

³⁰⁰ Raine, *Durham Household Book*, p.49. A typical entry reads 'And from Thomas Johnson, 3 hogsheads of wine, £5.15s.0d. Settled in the account between us on the 21st of May, 1532.'

³⁰¹ Raine, *Durham Household Book*, p.216.

months credit. On the 23rd December 1533, he bought four bushels of salt, worth 3s.4d., which was paid for (*quietus*) on the 14th January 1534, just over three weeks later.³⁰² Other goods were paid for in two or more installments. In the household book for 1533-4, for example, the bursar records the purchase of 140 sheep, costing £16. The date of purchase is not given, but credit was certainly involved since 66s.8d. was paid on the 21st May 'in part payment', while the balance was paid on the Feast of St. John the Baptist, the 24th June.³⁰³ It seems probable that the first payment date was the date of the transaction, in which case just over a month of credit was given in this instance.

When a man of some substance was used as an agent, very large debts could accumulate in the other direction – owed by the priory to the agent who had already paid the original supplier. These men may well have given the priory credit as a form of gift or loan: they were sometimes the same individuals to whom the prior might apply for cash sums when extra money was required by the priory. Evidence of an example of this situation comes from 1439, when a schedule of debt repayment was drawn up between the prior and William Hoton of Hardwick. It was recorded that the priory owed William a total of £60, and was agreed that this sum was to be repaid at the rate of £20 per year for the next three years.³⁰⁴ It was unclear whether interest was being charged for this agreement, ostensibly made by William 'out of love for St. Cuthbert, the prior and convent'. No interest or fee is mentioned in the schedule, but it is notable that the round sum of £60 which is declared to be the total owed by the priory is significantly more than the sum of the amounts listed as contributing to this total. The schedule lists the sums owing as £9.10s.0d. of arrears of William's annual

³⁰² Raine, *Durham Household Book*, p.255.

³⁰³ Raine, *Durham Household Book*, p.305.

fees, £4.0s.0d. which he paid to third parties, £15.7s.4d. as repayment of a loan and a total of £23.16s.0d. which he paid to various merchants for grain bought for the priory. This comes to a total of £52.13s.4d., £7.6s.8d. less than the sum to be repaid by the priory. Whilst this could simply be a mathematical error, it seems unlikely that the priory would make an error of this magnitude concerning a debt they had to repay; and similarly unlikely that an error would result in such a round number. It seems more likely that this represented a charge for credit.

Whilst it is impossible to calculate whether there was any cost associated with most credit transactions, the related question of whether the priory bought at preferential prices can be clearly answered in the negative. Dobson has already ascertained that the prices paid by the priory in the first half of the fifteenth century were the market prices,³⁰⁵ and a comparison of these accounts with entries in the Newcastle chamberlains' accounts makes it clear that the prices paid, and bulk discounts received, by the priory were in line with the terms offered to other customers.³⁰⁶ It should also be noted that not all goods bought via market transactions were acquired through straightforward cash transactions; just as the transactions made by the priory with tenants often resulted in the offsetting of an obligation of the tenant (such as a rent payment) against a payment due to the tenant from the priory for goods supplied, so too market transactions with individuals who owed money to the priory could result in similar paper accounting, with only the balance paid in cash. Although the obedientiary accounts do not give details of how payments were made, occasionally this information is given in the surviving household books. One example of a combined payment of this nature occurs in the household book for

³⁰⁴ DCM Reg.Parv.III, 100v.-101r.

³⁰⁵ Dobson, *Durham Cathedral Priory*, p.206.

1531/2, when four hogsheads of wine were bought from John Saunderson for £7.13s.4d., 'of which 30s. of the same was paid in the tithes, and £6.13s.4d. in cash (*in pecunia*) at Jarrow'.³⁰⁷ It seems likely that John Saunderson either lived on priory lands and so owed tithes to the priory, or more probably that he leased tithes from the priory for which he had not yet paid, so that the tithe element of this payment represented a credit against a debt owed by him to the priory.

Transport

The final stage of these market transactions, when the goods had been chosen, a bargain made and payment, if not made, at least pencilled in, was for the goods to be transported to the priory from the place of sale. Calculating the costs, methods and responsibility for the transport of the goods bought by the priory is difficult, primarily due to a lack of data. With some notable exceptions such as wine and livery cloth, the obedienciary accounts rarely mention carriage costs and even more rarely is it possible to identify the particular transaction to which a carriage cost relates, the amount of a commodity carried and the start and end points of the journey involved. In itself, this omission is suggestive. It might imply that in most cases the goods bought by the priory were either bought to the priory by the vendor without a separate charge being made for this service; however, this seems not to have been the case, at least for those items which were bought as the result of a market rather than a tenorial transaction, since in a list of similar goods bought one transaction might specify the inclusion of carriage whilst this remains unmentioned for adjacent transactions. It appears to have been the case that in general goods were brought back either by a priory

³⁰⁶See chapter three, p.131.

³⁰⁷Raine, *Durham Household Book*, p.49.

official whose expenses in going to make the transaction had already to be paid, resulting in no additional charge, or that goods were brought to Durham by specialist carriers who were paid for this service on an annual or day-rate basis, rather than job by job.

The impression of an annual contract or payment for carrying services is given by the inclusion of a lump sum for carriage in the bursars' necessary expenses each year. Around £1 is usually accounted for under this heading for the carriage of wine, iron, herring, salmon and other miscellaneous and unstated goods from Newcastle, South Shields, Sunderland and elsewhere. For example, in 1465/6 the bursar's necessary expenses included 12s.4½d. 'paid to Robert Blake, William Falker and Thomas Young for their expenses with cart-hire at Newcastle, Shields, Sunderland and elsewhere for carriage of iron, salmon, herring and other necessities in the period of this account', and a further 7s.6d. was paid 'to the porters of Newcastle for carrying wine, iron, herring, salmon and other necessities in the period of this account'.

The infrequency with which carriage costs other than these appear in the accounts suggests that goods were normally carried by pre-arranged contract or by priory agents or officials in the case of non-bulky goods. The bursars' necessary expenses frequently include payments to individuals for procuring goods, and it seems likely that these expenses included the cost of bringing the goods back to the priory. For example, in 1495/6 the bursar paid 2s.8d. for the 'expenses of John Youle riding to York for eels, pike, tench and roach for the feast of St.Cuthbert in March', and 1s.6d. for the 'expenses of Antony Elison riding to Benwell, Ovingham and Ryton (all on the river Tyne just to the west of Newcastle) for fresh salmon for the same feast'. Goods bought on the tenurial

pattern, which included bulky commodities such as grain and livestock, can only be assumed to have included carriage in the bargain as carrying costs are never mentioned and must surely have been considerable. It is possible that the goods paid in lieu of rent were physically taken to the exchequer of the relevant obedientiary in the same way as cash would have been, so rendering the question of carriage costs irrelevant to the priory (though it must surely have been a major consideration for the tenants in calculating how it would be most advantageous to pay their rents).

Occasionally additional carriage costs are mentioned in the accounts, and these would appear to have been for goods which were not covered by one of the above arrangements, but for which ad hoc arrangements had been made. For example, in 1470/1 the bursar's purchases of salt included three bulk purchases. Two of these were as usual from the tenants of Cowpen Bewley with no mention made of carriage, whilst one was from the merchant Robert Bartram who was paid £3.0s.0d. for 3 weys of salt, and an additional 6s.0d. for their carriage. This was presumably a top-up purchase; other one-off carriage charges might be for more unusual items, such as the payment of 14s.0d. made 'to Roger Bunde and Peter Andrew for the carriage of seven seals from Farne to the monastery in Durham' in 1495/6.

There are also certain commodities for which transport costs are frequently specified individually in these accounts, such as for many of the wine transactions. This evidence suggests firstly that most of the goods bought in bulk in market transactions by the priory's obedientiaries were bought at the home town of the merchants concerned, and that the priory was then responsible for arranging transport to Durham. Several of the entries in the few surviving

sacrists' accounts, for example, record the purchase of wine which is described as 'from Newcastle, with carriage and rolling'.³⁰⁸ Unfortunately, these entries do not separate out the various cost elements. However, the hostillars' accounts frequently give details of the carriage costs involved in his purchases of wine. These included two elements, carriage from Newcastle (which cost around 2s.0d. for a tun of wine) and 8d. or so 'paid to the porters of Newcastle for carrying over the Tyne bridge'.³⁰⁹ Less information is available for the transport of wine from places other than Newcastle. The main purchase of wine from York made in this period, the three tuns bought there in 1471/2, were bought 'with carriage', but the cost is not separated in the accounts from that of the wine itself, and cannot be estimated.³¹⁰ Interestingly, there are no details given for carriage costs from Hull. It is possible that the description of merchants as being 'of Hull' did not preclude their having sold wine to the bursar at Newcastle; however, one tun at least of the wine bought in 1484/5 was specifically described as 'bought at Hull'. Perhaps this wine was contracted for at Hull but actually handed over in Newcastle, or maybe it was brought to Durham by the agents of the priory who had purchased it at Hull.

Secondly, the existence of such carriage charges enables a rough calculation of the cost of transport of such goods in this region to be made. For wine, the figure of 2s.0d. per tun, plus 8d. portage over the Tyne, has been given from the hostillar's accounts. As has been seen, the bursar's accounts tend to include wine in the general carriage charge for the year; in 1475/6, however, the bursar did account separately for the carriage of five tuns of wine from

³⁰⁸DCM Sacrists' account rolls, 1483/4, 1486/7, 1487/8.

³⁰⁹DCM Hostillars' account rolls, e.g. 1486/7.

Newcastle, again at the rate of 2s.0d. per tun, and this figure is also found in the rental of 1495/6, when it was accepted as a payment in kind for rent owed to the priory.³¹¹ The household book for 1531/2 records that the carriage charges ruling then were 1s.4d. per hogshead, or 2s.4d. per tun. Two hogsheads of the wine brought to Durham that year came by boat, and the saving this represented was considerable - the total cost for the carriage of both hogsheads and the 20q. of barley that accompanied them was only 1s.0d.³¹² It is surprising, in the light of this difference, that more goods were not moved by water.

In calculating the cost per mile of carriage, modern distance estimates (ie, using modern routes) have been used as the medieval equivalents are impossible to ascertain. Using a figure of fifteen miles as the distance between Newcastle and Durham, the cost of road transport (excluding portorage) for a tun of wine works out at 1.6d. per mile. The cost of water transport is unclear due to the inclusion of barley in the load, but was certainly much less than this. If the transport cost is divided between the load on the basis of weight, then the wine travelled from Newcastle to Durham for 1.7d., equivalent to 0.2d. per tun per mile.³¹³ This rough estimate of the relative costs of the two modes of transport is comparable with the assessment made by Edwards and Hindle that water transport was far cheaper than carriage by road, 'by a factor of up to 6'.³¹⁴

³¹⁰The cost elements cannot be estimated since the wine cost was clearly not commensurate with the other purchases made that year. The York cost was £18.10s.8d. for three tuns with carriage, compared to around £4. per pipe or £7.6s.8d. per tun for the wine bought at Newcastle.

³¹¹DCM Bursar's account ('necessary expenses' section) 1474/5; Piper and Lomas, *Rentals*, p.136

³¹²Raine, *Durham Household Book*, p.63.

³¹³Two hogsheads of wine contain 126 gallons, or 572.796 litres, and thus weighed roughly 573kg. (excluding packaging). A quarter of wheat contained 384lb, or 174.182 kg., so 20q. weighed 3483.648 kg.. The wine thus accounted for 14.12% of the total cargo.

³¹⁴J.F.Edwards and B.P.Hindle, 'The Transportation System of Medieval England and Wales', *Journal of Historical Geography*, 17 (1991), p.129.

Both these road and water transport costs for the carriage of a tun of wine from compare favourably with those estimated for the Midlands in 1452/3 by Dyer, at 3.2 pence per tun per mile by road and 0.6 pence by water.³¹⁵ In Suffolk in 1412-3, Alice de Bryene paid around 3s.0d. per year to her usual wine supplier for delivery from Ipswich of her usual order, a total of four tuns annually. She also paid 1s.6d. for the expenses of her agent going to Colchester with a cart and seven horses to collect a pipe of wine.³¹⁶ The distance from her home at Acton to Ipswich was about 32 miles, and from Acton to Colchester around 26 miles, so these carriage charges work out at roughly 0.3d. and 2.7d. per tun/mile respectively, suggesting that the carriage from Ipswich must have been largely by water, probably along the coast to the Stour estuary and then via the Stour to Sudbury, only three or four miles from Acton.

Carriage costs can also be examined for the livery cloths bought by the bursar in each year, for which a transport charge was always recorded except in those years when the cloth was bought in Durham itself. These charges, and the equivalent cost per mile calculated using modern distances are shown in the following table. It is notable that in the case of cloth, variations in the amount of cloth involved in each year did not lead to equivalent variations in carriage charges. This is particularly noticeable in the case of the long series of identical carriage charges, 8s.0d. from York in the twelve years from 1470 to 1482, and 12s.0d. from Leeds in the eleven years from 1494 to 1505. The quantity of cloth in these cases varied considerably over these periods, between 285 and 441 yards, averaging 380 yards, in the first instance and between 150 and 489 yards,

³¹⁵ C.Dyer, *Everyday Life in Medieval England* (London, 1996), p.262.

³¹⁶ F.Swabey, *Medieval Gentlewoman: Life in a Widow's Household in the Later Middle Ages* (Stroud, 1999) pp.87-8.

averaging 363 yards in the latter. In both cases there was great consistency of carrier as well as price, suggesting that some sort of fixed contract may have been behind the stable price: John Welbury undertook the carriage from York in all but one of these years and Thomas Richardson, who was the cloth merchant involved in all but the last two of the Leeds consignments, also handled the carriage in each year in which he dealt with the priory.

Fig. 52: Transport costs for livery cloth consignments, 1465-1505

Carriage to Durham from:	Miles (modern estimate):	Cost:	Cost in pence per mile:
York (1465)	64	5s.	0.9
York (1466)	64	6s.8d.	1.3
York (1467 - 1469)	64	10s.	1.9
York (1470 - 1482)	64	8s.	1.5
Halifax (1484)	94	6s.8d.	0.9
London (1486)	256	31s.	1.5
London (1487)	256	40s.	1.9
Leeds (1492 - 1493)	77	13s.4d.	2.1
Leeds (1494 - 1505)	77	12s.	1.6
Average			1.5

It is difficult to know how the carriage costs calculated in the above table compare with those charged elsewhere, since little work has been done on this question. These costs do seem to have been much higher than those calculated for grain in the fourteenth century by James Masschaele, based on the purchasing details given in the surviving sheriffs accounts for that period. His calculations produced an average land carriage charge of 1.5d. per ton/mile over the whole of

England.³¹⁷ This is identical to the average 1.5d. per load/mile given by the bursar's accounts. However, these figures are not of course directly comparable due to the different units involved. It seems probable that the consistency in the bursars' carriage charges despite changes in the quantity carried implies that the charge was based on a cart's journey, so that a half-full cart incurred the same costs as a fully laden one. Masschaele does give some cartload charges: these were usually 14d. (occasionally 18d.) per day, and a laden cart travelled around 15-20 miles per day.³¹⁸ An extremely rough and ready calculation based on these figures yields a cart cost of around 0.8d. per mile (14 pence divided by 17.5 miles), suggesting that the carriage of a ton of grain needed two carts. The weight of the average load of cloth bought by the bursar in these years would have been well within the capabilities of a single cart.³¹⁹ The most comparable figures are thus the cart cost of 0.8d. per mile calculable from Masschaele's data, and the load (assumed also to be a cart) cost of 1.5d. per mile derived from the Durham figures. The time difference of over a century between these two makes any attempt at regional interpretation impossible.

Kowaleski calculates the carriage cost of a tun of wine in the Exeter region in the early fourteenth century as between 4d. and 5.2d. per mile, with distances calculated as the crow flies. This is much higher than the other costs noted here, but merchants from Taunton in 1381-91 were not deterred by these

³¹⁷ J.Masschaele, 'Transport Costs in Medieval England', *Economic History Review*, 2nd ser., 46 (1993), p.271.

³¹⁸ Masschaele, 'Transport Costs', pp.269-70.

³¹⁹ The individual cloths purchased by the priory probably contained around 84 lbs. of wool, equivalent to a weight per ell of around 3.5lbs. (J.H.Munro, *Textiles, Towns and Trade: Essays in the Economic History of Late-Medieval England and the Low Countries*, (Aldershot, 1994), p.17). The average yearly purchase of 347 ells would thus have weighed 0.54 of a ton, sufficiently low to allow for the purchases of even the highest years to be carried on a single cart.

charges from purchasing a total of 189 tuns of wine at Exeter, 28 miles away.³²⁰

The high transport costs found here may be at least partially explained by the topology of the local area, since the area between Taunton and Exeter is covered by the Black Down Hills. These may well have presented difficulties which were reflected in a higher price for carrying services, and in addition would have increased the actual distance that it was necessary to travel so that the real cost per mile might well be lower than an as-the-crow-flies estimate of distance would suggest.

Other transport cost data based on cart-loads is also available in the obediatory accounts relating to the carriage of hay and building materials. These commodities are generally measured in these accounts in cart-loads, and journeys are often described by start- and end-point, enabling reasonable estimates of the cost per mile to be made. In the first place, it is clear that the distance involved did affect the price charged: in 1490/1, for example, the cellarer paid for hay to be carried from the field at Relley to Durham at 6d. per cart-load, from the field to the manor at Relley at 2d. per cart-load and from Bellasis to Durham at 4d. per cart-load. Relley was around two miles from Durham, giving a cost per cart per mile of circa 3d., although for small distances such as this the margin of error involved in using modern distances rather than the medieval road system is likely to be enhanced. The identification of Bellasis is not certain, as the priory had a manor of that name at Billingham, but the relative cost of transporting hay from there when compared to that given for Relley suggests that the farm which lies immediately over the Wear from Durham Cathedral is referred to here, in which case the small distance involved

³²⁰ M.Kowaleski, *Local Markets and Regional Trade in Medieval Exeter* (Cambridge, 1995), p.268.

makes cost per mile analysis redundant, as the time involved in loading and unloading the cart would be likely to outweigh the actual travel element.

The point that more was involved in determining carriage costs than simply the distance to be travelled can also be seen in the fact that the commodity involved played a part in determining the price charged for carriage. Whilst hay was regularly carted from Relley to Durham at a price of 6d. per cart-load throughout this period other commodities transported between the same two places attracted different charges. In 1480/1, for example, the cellarer was carrying out various building and repair works in South Street in Durham, and paid for stone and timber to be carried there. The stone came from Broom, adjacent to Relley, and was carried at a cost of 3d. per cart-load; the timber was carried from Relley itself at a cost of 6d. per cart-load. Different carriers were used for these commodities, and it is possible that the different prices reflected this. It may have been the case that a relative difficulty in handling the two materials, or different cart requirements, were the underlying cause of the price difference; or even that the carts belonging to the respective carriers were of different sizes.

The question arises of who the carriers employed by the priory were, in other words whether they were specialist carriers by trade, general priory servants or perhaps journeymen or small tradesmen who engaged in a wide variety of money-making pursuits. In an attempt to answer this question, a comparison has been made between the names which recur in these priory accounts as carriers and the names recorded in Christine Newman's database of those employed on the priory estates in the latter half of this period, information also derived from the Durham Cathedral Priory obediary accounts, but little

overlap has been found. The name John Bailya occurs in the latter database on one occasion, in 1492, 'acquiring rock salmon' for priory feasts along with two other men, but none of the other carriers looked at here are to be found engaged in such activities. The names John Atkinson and John Walker do appear, but only in connection with building and general labouring work. This may imply that they were general labourers, but the names are common ones and may refer to different individuals. The other carriers found in this study, William Welbery, John Welbury and Richard Clyff, do not occur anywhere in Newman's research. However, a family connection might be surmised in the case of Richard Clyff, since a William Clyff appears 43 times between 1492 and 1507 in Newman's database, always in connection with the carriage of various goods. The evidence is inconclusive, therefore, but it is noteworthy that none of the carriers mentioned are to be found in the pensions and stipends sections of the priory accounts, implying that whatever their relationship to the priory or state of employment might have been, at least they were not 'salaried' priory employees, or retained by the priory on an annual basis. Finally, it should be noted that the merchant supplying the priory with the livery cloths was also paid for its carriage in a third of the bursars' accounts from this period, although whether this was indeed undertaken by the draper himself or was sub-contracted by him is unknown.

Finally, it is necessary to address the question of whether or to what extent transport costs or difficulties impacted upon the priory's purchasing decisions and strategies. Although little direct evidence can be brought to bear on this issue, some observations may be made. In the first place, it should be noted that there was probably no physical bar to travel and the transport of goods to and from the north-east in this period. The infrastructure of roads and waterways

to, from and within the north-east of England was certainly adequately developed from early in the middle ages, and the main routes were well-travelled by the fifteenth century. The first known medieval map of England, that of Matthew Paris from c.1250, shows the route from Dover to Newcastle via London, Doncaster, Northallerton and Durham, and known royal itineraries show a similar route from London to York and Newcastle via Durham in frequent use throughout the medieval period.³²¹ The coast and rivers provided an additional network of alternative routes, the importance of which is shown by the high proportion of prominent medieval towns built with ready access to navigable water.³²² Overall, all the evidence available about medieval travel and road systems indicates that the existing infrastructure was adequate well into the sixteenth century.³²³ Martin's study of the fourteenth and fifteenth century journeys of the warden and fellows of Merton College Oxford, whilst restricted by the lack of information which has survived about specific transport costs, concluded that travel in this period was 'systematic and regular, and ... undertaken as a matter of course'.³²⁴ Even winter weather does not appear to have posed a regular bar to the travel necessary for trade or business to be carried out; haulage could be carried on in the winter months without attracting undue comment or problems, and the royal household continued to travel around the country at all seasons.³²⁵

³²¹ B.P.Hindle, 'The Road Network of Medieval England and Wales', *Journal of Historical Geography*, 2 (1976), pp.209, 215.

³²² Edwards and.Hindle, 'Transportation System', p.129.

³²³ B.P.Hindle, 'Roads and Tracks', in L.Cantor ed., *The English Medieval Landscape* (Croom Helm Historical Geography Ser., 1982), p.214.

³²⁴ G.H.Martin, 'Road Travel in the Middle Ages: Some Journeys of the Warden and Fellows of Merton College, Oxford, 1315-1470', *Journal of Transport History*, New Ser. III (1975/6), p.172.

³²⁵ B.P.Hindle, 'Seasonal Variations in Travel in Medieval England', *Journal of Transport History*, New Ser. IV (1978), pp.170, 176-7.

Conclusion

It is not possible to calculate the precise impact of transport costs upon the priory's purchasing decisions since on the one hand carriage costs are only rarely given, suggesting that at least non-bulky goods were frequently brought to the priory by someone making the journey for other reasons, so that they were not charged for separately, and on the other hand prices varied so much from year to year that total costs given for goods in different years, one of which included a carriage element, cannot be used with any certainty to assess the magnitude of the carriage element. A rare example of costs which are to some extent comparable comes in the bursars' purchases of holland and flemish cloths. Two such purchases were made at London, of 41 ells in 1468/9 at a total cost of £1.17s.8d. which was specified in the account to have included the cost of carriage, and of 54 ells in 1478/9 at 8d. per ell, a total cost of £1.16s.0d. (without a carriage element). These cloths almost always cost 8d. per ell, and if it is assumed that that bought in 1468/9 was no exception then the carriage element of the total cost can be calculated to have been 10s.4d.. No other locations are given for the purchase of such cloths except for one purchase of five ells in 1466/7, which was specified to have been made at Pipewellgate in Gateshead; it seems likely that the remaining cloth was purchased in Newcastle, particularly since many of the names which occur as suppliers (such as William Cornforth, William Shotton and John Farne) are those of well-known Newcastle merchants who appear many times in these accounts. That being so, there is no apparent reason for the holland cloth bought in London in 1468/9 to have been bought in London; and the presence of a significant carriage charge does not appear to have been a disincentive to such a purchase. It is possible that no Newcastle supplier

happened to be able to supply the priory with the quantity or quality of cloth that they required on that one occasion; certainly the London purchase was the only purchase of such cloth in 1468/9, but then it was by no means unusual for only a single purchase of this nature to be made in any one year.

However, the infrequency with which goods were in fact sourced from outside the immediate region, even when price differentials clearly existed, suggests that powerful disincentives to such activity either were in fact in place or were at least perceived to be in place. Although letters clearly show that individuals in London were on occasion asked to purchase goods and forward them to the priory, and occasional purchases in London did take place, these were very much the exception. It is not surprising that a bulky, common and relatively low-value commodity such as grain was only purchased outside the region when failure of local supply occurred and the pressure of price differentials made transporting the large quantities needed worthwhile. However, the fact that even such luxury specialist goods as malmsey were generally purchased in Newcastle, and that even such high value goods as livery cloths were purchased in Durham by the end of this period, suggests that supply was the key to this pattern. In the absence of any pressing need to buy goods elsewhere local suppliers were more likely to be used providing they could supply the types, qualities and volumes that were required. Sourcing locally must have presented a range of advantages, such as the ability to more accurately assess and sample the goods before purchase and quicker delivery; in addition, however, it seems probable that personal relationships with local suppliers would be an important factor.

The priory's purchasing was based on credit and trust, and as such knowledge of and relationships with suppliers would have been at a premium.³²⁶ When it was necessary to make purchases remotely the priory overcame the lack of such personal knowledge by using trusted agents who themselves had such relationships or access to the necessary networks to acquire them. Local suppliers could be known directly, and relationships could be built up with them so that the quality of their goods and their reliability could be assessed on the basis of past experience or personal trust. This was undoubtedly one advantage of the tenorial system of purchasing; the suppliers were by definition known, they were stable and certain (or very likely) to remain in business for the duration of the 'contract' with them, and issues of credit and payment were avoided by the adoption of a largely cashless system. In a system in which personal relationships and the individual supplier were of such importance, the detail and high degree of survival of the priory accounts can shed a great deal of light both on some of the individuals concerned and on the prosopographical details of the cohort of priory suppliers as a whole. It is to a consideration of the suppliers themselves, therefore, that this discussion will now turn.

³²⁶ C.Muldrew, *The Economy of Obligation* (London, 1998), pp.4-5; D.C.North, 'Transaction Costs in History', *Journal of European Economic History*, 14 (1985), p.560.

Chapter Six

The Suppliers of the Priory

Introduction

For the great majority of transactions recorded in these accounts the name of the merchant or merchants involved is given, and from an analysis of this information several interesting points emerge about the group of merchants who were supplying the priory at this time. Very little is known about the merchants trading in the north-east in this period, and the evidence that does exist relates primarily to their involvement in overseas trading activities.³²⁷ The information contained in the Durham Cathedral Priory obedientiary accounts is thus both rare and important, providing a detailed record of the priory's dealings with a wide variety of suppliers throughout the region. The nature of this study, looking in depth at the information contained within a single source, means that this analysis of the merchant community of the region cannot rival in detail or breadth of research the prosopographical studies which have been carried out elsewhere using a wider range of sources to shed light on the social composition and economic wellbeing of a single group of people or even a whole town.³²⁸ However, the Durham obedientiary accounts do provide a unique opportunity for the study in depth of a 'slice' of medieval society; of a group of medieval men and women defined not by geography or even by their cohesiveness as a class, but by their common involvement in supplying goods to a major consumer.

³²⁷ See for example Wade, *Customs Accounts*, and Fraser, 'Early Hostmen'.

³²⁸ The best examples of this in recent years include Kowaleski, *Exeter* and (for Durham itself) Bonney, *Lordship*; other such detailed studies include S.L.Thrupp, *The Merchant Class of Medieval London (1300-1500)* (Chicago, 1948); M.J.Bennett, *Community, Class and Careerism: Cheshire and Lancashire Society in the Age of Sir Gawain and the Green Knight* (Cambridge, 1983); G.Rosser, *Medieval Westminster 1200-1540* (Oxford, 1989) and J.I.Kermode, *Medieval Merchants: York, Beverley and Hull in the Later Middle Ages* (Cambridge, 1998).

The myriad concerns of the priory meant that a wide variety of commodities were purchased from an equally wide variety of suppliers, and by a variety of means. For some, the business of supplying the priory may have been a major element in their livelihoods while for others it was clearly tangential to their main concerns, and an element of randomness is thus inherent in this sample of the economically active population of the region. By studying the suppliers of the priory, therefore, it is possible to examine some aspects of the lives and livelihoods of a cross-section of the producers, manufacturers and traders active in the north-east of England in the late middle ages.

This analysis uses information derived from the cloth, wine, spices and iron sections of the bursars' accounts for every year from which those accounts have survived in this period, and also information relating to meat, fish and miscellaneous comestibles from the bursar/cellarer indentures which have been sampled at decade intervals. The suppliers of grain, who were exceptionally numerous and uniquely interwoven with the priory's rent-payers,³²⁹ have only been looked at in detail for 1495/6, the year for which the rental survives and has been printed. Supplementary information has also been taken from the other obedientary accounts which include details of these commodities, such as the hostillers' accounts for wine. Before the results of an analysis of this evidence are discussed, however, an explanation of the methodology used in linking suppliers and identifying individuals is necessary if these results are to be meaningful.

The aggregation of discrete pieces of data must always admit the possibility of error, but the rigid application of coding rules makes the potential

³²⁹ See chapter four, pp.194-7.

for error transparent and thus manageable. Four classes of aggregation confidence have been used, based on the uniqueness or otherwise of certain firstname, surname and placename combinations. Unique combinations of these three pieces of data have been coded A-class. This coding has been used for several slightly different types of unique combination. At its simplest, the database contains only one instance of that particular firstname and surname combination (regardless of the location information); for example, the name combination Robert Archer occurs only once in the database and thus clearly refers only to a single individual. Alternatively, a name might appear several times but always in combination with a single placename (e.g. William Catlynson of West Rainton), or always in combination with no placename (e.g. Katherine Bywell, no place stated). The logic behind the aggregation of these pieces of data is that it is virtually impossible to envisage a situation where it would ever be possible to identify or to distinguish between these individuals with any more certainty than is possible here.

The following category, B-classifications, denote firstname, surname and placename combinations where a placename is not always given, in which case it has been assumed that the remaining occurrences of the same firstname and surname combination with an unstated placename apply to the same individual. The basis for this assumption is that where two individuals existed who had the same full name but were from different places, the accounts would have been likely to have differentiated between them (a practise which may be frequently seen, and which is discussed below). An example of a B-coded supplier is Thomas Ryhope, a name which occurs five times in the database between 1495 and 1501. On one of these occasions the location Durham is specified, and no

location is mentioned on the other occasions. By these coding rules the five mentions of the name have been aggregated to one individual, Thomas Ryhope of Durham, supplier number B96 in the database. Similarly, C-classifications apply to unique firstname, surname and placename combinations where at least one other combination exists differing only in the placename aspect of the combination (other than where the only alternative placename is 'unknown', which situation is covered by the B class as discussed above). For example, the database includes one mention of a William Richardson of Durham (coded C102), and three of a William Richardson of Ferryhill (coded C103). It has been assumed throughout that the use of different placenames implies the existence of different suppliers; the small potential for error in this assumption is discussed more fully in the appendix.

Finally, there is the case to be considered when the same first name and surname combination occurs in combination not only with two or more different placenames but also with instances of unstated location. In this scenario, the suppliers with placenames are C-coded as discussed above, whilst the instances of unstated location are D-coded. An example will illustrate how this works in practise. There are four occurrences of the firstname and surname combination Richard Smith in the database. Two of these have no placename associated with them, one is located at Shaldforth and the other at Billingham. The latter two instances are assumed to be two different suppliers, and are allocated the codes C137 and C138 respectively. However, it is impossible to tell whether the remaining two 'Richard Smiths' represent one, both or neither of these individuals, and they are allocated the D-code D 34. It may be seen from this last scenario that it is impossible to be completely accurate in an assesment of the

total number of suppliers named in the database, but (within the accuracy allowed by the coding rules) it is possible to give boundaries. In all, the database contains 762 A-coded suppliers, 141 B-coded suppliers, 199 C-coded suppliers and 52 D-coded suppliers. (There are also suppliers named only by their official position, but these are not under consideration here). If it were assumed that none of the D-coded suppliers represented an additional individual, but that all the transactions carried out by these suppliers were in fact carried out by suppliers in the C-class whom it has simply not been possible to identify more closely, then the total number of individuals named as supplying the priory in the accounts used for the compilation of the database would be 1102. If, on the other hand, it were assumed that all the D-coded suppliers were in fact additional individuals, the total would be 1154. The potential for error is therefore small, only in the region of 5%. It should be noted that D-coded suppliers have been excluded from the following analysis, and so the numbers mentioned might be up to 5% lower than the true situation.

Numbers of suppliers and repeat suppliers

On first examination of the merchants' names that are specified in the various obedientiary accounts in the priory, the main impression gained is of the wide variety and high number of the suppliers from whom goods were bought in each year. A total of 264 suppliers were engaged in selling fish and 567 in selling livestock in the sample years of the bursar/cellarer indentures looked at here, whilst over the whole of this period 362 suppliers of cloth are named in the accounts alongside 123 suppliers of iron, 96 suppliers of wine, 53 suppliers of miscellaneous foodstuffs and twenty suppliers of spices to the priory. Although

some of these were engaged in supplying more than one type of commodity to the priory (an issue which will be addressed below), the total number of suppliers to the priory which have been identified here as active over this period was well over 1200 even after taking such overlap into account.³³⁰

The majority of these suppliers did not enter into anything approaching a long-term or exclusive marketing relationship with the priory. Many names appear only once in the accounts, and only a select few appear more than twice. Of the 1102 A, B or C-coded individuals for whom transactions are recorded in the database, 615 (56%) have only one transaction associated with them and a further 207 (19%) have two. Of the remaining 25% of suppliers, 105 (10% of the total) are associated with three recorded transactions, but the numbers of suppliers for whom more transactions are recorded are much smaller. A further 10% have four, five or six transactions, and only 5% have seven or more. The highest number of transactions associated with one supplier is 99, relating to the livery cloth supplied by John Marshall.³³¹ This reflects the fact that the livery cloths and the furs bought by the bursar stand out as being bought from only a small number of merchants in total, and by generally being supplied to the priory by a single merchant for several years in succession. In contrast, the overall pattern of only a few transactions per supplier is similar for those imported or manufactured commodities analysed outside of the database.³³² Seventy of the 96 wine merchants' names appear only once, and another ten only twice, a total of

³³⁰ This figure is made up of the minimum of 1102 suppliers who are included in the database, and the suppliers of commodities such as wine, iron and so on which have been analysed outside the database.

³³¹ It should be noted that the fact that the bursar/cellarer indentures were sampled every decade whilst the cloth accounts were looked at for every year for which records survived means that the occurrence of cloth merchants in the accounts is not strictly comparable with that of the suppliers of agricultural produce. Nevertheless, John Marshall's association with the priory remains exceptional.

³³² E.g., the wine, spices and iron discussed in Threlfall-Holmes, 'Provisioning'.

83%, whilst 93 of 123 suppliers of iron to the priory (76%) appear only once or twice in the accounts.

Fig. 53: The distribution of transactions between suppliers
in the databased accounts, 1464-1520³³³

Transactions	Suppliers	Transactions	Suppliers	Transactions	Suppliers
1	615	8	5	15	1
2	207	9	6	16	1
3	105	10	7	19	1
4	56	11	5	21	3
5	30	12	2	31	1
6	22	13	3	52	1
7	24	14	6	99	1

Most of the merchants who did secure repeated orders still appear in the accounts only occasionally. An important result of this is that, whilst a substantial amount of statistical information about the whole body of merchants who supplied the priory can be derived from this data, details of the biographies of individual merchants can only be given for relatively few. It should also be noted that the large numbers of merchants who appear only once or twice in these accounts means that the evidence of these accounts cannot be brought to bear on such issues as the average length of a merchant's career.

These accounts reveal that the priory's tendency was to spread its business between at several suppliers in each product category in each year. A clear distinction is visible here between the pattern observed for imported and manufactured goods, purchased primarily via the market, and that for agricultural

³³³ The databased accounts are the cloth purchases of all the relevant obedientiaries, 1464-1520, together with all the information in the bursar/cellarer indentures for the sample years 1465/6, 1474/5, 1485/6, 1495/6, 1504/5 and 1515/6.

produce acquired largely via tenurial relationships. The average number of merchants from whom the bursar purchased wine in any one year was only five, varying between two (in six years), to eight (in five years) or nine (in one year, 1505/6). A similar pattern may be seen in the bursar's purchases of iron, where the average was again five named merchants, varying from two (in 1508/9) to twelve (in 1467/8). Cloth and furs were purchased from an average of sixteen suppliers each year, although furs and livery cloths were purchased from only a single merchant each in each year. Spices, too, were bought from one principal merchant in each year, although supplementary purchases were generally also made from several others. Salmon, a fish which appears to have been frequently bought via market transactions, was purchased from an average of ten suppliers per year, whilst other fish came from around twice as many; herring were purchased from an average of twenty suppliers per year, and dogdraves from eighteen. With the exception of sheep, which came from an average of fifteen suppliers per year, livestock was acquired much more widely than these other goods. On average, poultry was supplied to the priory by 45 individuals each year, pigs by 48 and cattle by 56. Grain, meanwhile, was supplied to the priory by 127 individuals in 1495/6 alone, and there is no reason to suspect that this was by any means an exceptional year; indeed, the rentals for 1507-10 show a similar pattern.

Wider Relationships between the priory and its suppliers

However, it is clear that the priory did have closer relationships with some merchants than would appear to have been the case from a simple list such as that above of the number of transactions entered into with each one. The

names of several Newcastle merchants and other suppliers of the priory are to be found in the *Liber Vitae*, a book of names which was kept upon the altar in Durham Cathedral and added to throughout the medieval period.³³⁴ The exact significance of inclusion in this book is not clear, but it certainly argues a more complex relationship with the priory than simply one based on trading relationships or the occasional transaction, and many of the names included appear to have been those of the families of monks. In an attempt to quantify the extent to which these social relationships penetrated the priory's supply networks, a comparison has been made between the supplier names collected in the database used in the course of this research and those names recorded in the *Liber Vitae* which have been dated by paleographic means to the late fifteenth or early sixteenth century.³³⁵

In all, 70 surnames are common to the two sources, and whilst the exact identification of individuals in one with those in the other is not possible, 71 individuals with exactly the same firstname and surname combination are to be found. These represent 6% of the cohort of suppliers identified in the database. In addition, the *Liber Vitae* contains a further 70 individuals (whose names are written in hands which have been dated to this period) who can be identified as monks of Durham and who have surnames matching those of suppliers to the priory. For many of these cases it is explicitly spelt out in the *Liber Vitae* that the lay individuals listed were the family of the monks concerned, and indeed a link is sometimes made with individuals of different surnames. For example, John Robinson of Newcastle (probably the merchant of the same name who supplied

³³⁴ Thompson, *Liber Vitae*.

³³⁵ I am indebted to L.S.Rollason for her assistance with this comparison in the course of her research into the composition and significance of the *Liber Vitae*.

wine to the priory in this period)³³⁶ and his wife Maiona are listed with the monk Edward Hebburn who is explicitly described as their son.³³⁷ Entire family groupings were also described on occasion, as was the case with the entry for William Lawe, a monk of Durham in the second half of the fifteenth century, who is listed in the *Liber Vitae* with his father Thomas, his mother Agnes, and nine other members of his family.³³⁸ In other cases, a monk's name is given and his parents are mentioned, but their names are not given. For example Robert Spink, a monk of Durham who entered the monastery in the early sixteenth century, is listed 'with his parents' but no further details are included in the book.³³⁹

Whilst it is not possible to positively identify the names in the *Liber Vitae* with the suppliers' names to be found in the obediatory accounts, it seems very likely that many of the names to be found in both sources denote the same individual or at least members of the same family. It is also worthy of note that several of the more prominent surnames in both sources are the same, suggesting the presence of families who were closely connected with the priory on a variety of levels. For example, the Willys were a prominent monastic family, whose name appears several times in the *Liber Vitae*. Individuals of that name recorded there included a monk named Robert and his father Edward, and two other monks, Christopher Willy and Henry Willy, who were described as being the sons of Richard and Elizabeth Willy and the siblings of Roland, Thomas, Robert, William, Alice, Johanna, William and Alice.³⁴⁰ A large group of Willys (John, Ralph, Richard, Robert, Thomas and William) also supplied the priory with a

³³⁶ Threlfall-Holmes, 'Provisioning', p.96.

³³⁷ Thompson, *Liber Vitae*, f.83r.

³³⁸ Thompson, *Liber Vitae*, f.66v.

³³⁹ Thompson, *Liber Vitae*, f.81v.

range of livestock, poultry and grain, and these individuals were mainly described in the accounts as haling from East (Kirk) Merrington and thus were almost certainly a family grouping. Other names which occur several times in each source include Coke, Duket, Forest, Lawson, Rakett, Richardson and Robinson, although the latter is so common that it almost certainly denoted the members of more than one family.

Further evidence from a different source of such a family relationship between the monks and the suppliers of the priory comes in 1477, when a John Esyngton entered Durham college at Oxford, probably with the intention of later joining the monastery himself. This is known because his father entered into a bond with the prior which has survived in the Durham archive, in which he promised to pay a sum of money if his son misbehaved whilst at the college or left before taking his degree.³⁴¹ The boy is described specifically in the source as the son of the merchant of Newcastle-upon-Tyne of the same name. The merchant John Esyngton of Newcastle was a notable supplier of the priory, appearing at least ten times in the accounts between 1465/6 and 1485/6, selling a typical range of imported and processed goods; wine, Spanish iron, processed fish and oil.³⁴² Without being able to precisely quantify the degree of integration between the social or familial networks of the members of the priory and the supply networks which they drew upon, therefore, it is clear that there was a significant degree of intercourse between the two.

³⁴⁰ Thompson, *Liber Vitae*, ff. 80r/v.

³⁴¹ DCM Reg.Parv.III, 173r.

Commodity Specialists and Generalists

The figures for the number of suppliers of each commodity in each year give an impression of a rather larger total than the actual cohort of suppliers to the priory, since there was a degree of overlap between the suppliers of certain commodities. Here again a distinction between commodities may be observed, and the differentiation already noted between the agricultural products of the region and imported or manufactured products becomes especially marked when it is seen that the suppliers of each of these two groups of products overlapped very little, whereas there was a distinct tendency for suppliers to be generalists within one or other of these sectors. In addition, however, it can be seen that certain commodities in both classes tended to be supplied by specialists in that particular commodity.

For grain suppliers, a comparison was made between the names occurring in the bursar's accounts for 1495/6 and the names recorded in the database of those individuals who supplied other goods to the priory. The pattern of specialism or generalism which this analysis reveals varied across the different places from which grain was acquired. That is to say, for some villages which supplied grain there was an exact correspondance between the names which appear in connection with grain and in connection with the supply of other goods, while at others there was little comparison between the two. Overall, however, this analysis reveals a high degree of correlation, implying a striking lack of specialisation in particular commodities by individual farmers, even those who were clearly farmers in a big way.

³⁴² John Esynnton appears in the bursars' accounts selling wine in 1472/3 and 1482/3 and Spanish iron in 1467-9, 1470/1, 1472-4. He is also mentioned three times in the bursar/cellarer indentures, supplying oil in 1465/6, a barrel of sturgeon in 1467/8, and an aughtendell of salt eels in 1485 6.

In all, 118 individually named tenant-suppliers from seventeen villages are listed as supplying grain to the bursar, with an additional nine individuals named separately (that is, not in a list of tenants from a village). For seven of the seventeen villages listed, all of the suppliers named in the grain accounts also definitely appear in the database supplying other commodities, in other words the names and the placename both match. The seven places to which this applies are East Rainton, Moorsley, North Pittington, Chilton, Mid Merrington, West Merrington and Coatsay Moor. A further four places yield close matches. Of these, both the West Rainton and Hesilden grain accounts include only one person who does not also appear in the database supplying goods other than grain, whilst the Ferryhill account contains a name which does appear supplying other goods but without the location 'Ferryhill' being given (so that a positive identification cannot be made), and the Ferryhill and East Merrington accounts both contain widows who do not themselves supply goods other than grain but whose husbands do.

Of the remaining six villages which supplied grain to the priory, five (Cowpen Bewley, Newton Bewley, Wolviston, Billingham and Aycliffe) each have around half of their grain suppliers also supplying other goods to the priory in the sample years looked at here. Dalton is the exception, since whilst 'the vicar of Dalton' and 'the tenants of Dalton' are both mentioned in the accounts supplying various goods on occasion, no individually named suppliers are recorded as having been from there. It would seem highly probable, however, that many of the priory's named grain suppliers from Dalton would have been represented in 'the tenants of Dalton'. Each of the other five places have a mixture of grain suppliers who are identified by both name and place as

supplying other goods in the sample years looked at here, names which match but for which no place is given so that it is by no means certain that the two can be identified, and names which simply do not appear in the other accounts looked at for this study. In all, of the 49 grain suppliers from these five villages, 17 are definitely identified as supplying other goods, 10 are uncertain matches and 22 are not mentioned in connection with other commodities in the years under consideration.

Finally, there are nine individuals named as supplying grain to the priory who are listed in their own right in the bursar's account, rather than as part of a village list. Six of these also appear in the database supplying a variety of goods other than grain: Roger Morland, of the manor of Pittington; John Henryson of South Pittington; Richard Wilkinson, of the manor of Eden; William Brown of Hesilden; Richard Denom of Newhouse and Richard Smith of Shadforth. The three who do not also appear in the database are John Kape and John Matho, both of Southwick, and the widow of Thomas Strangeways of Newton Ketton, although her husband does appear.

Overall, therefore, 87 of the 127 individuals named in the grain supply sections of the bursar's account for 1495/6 also definitely appear in the database supplying other goods. Of the remaining 40, 26 names do not appear in the database, whilst 11 are uncertain matches and 3 are widows whose husbands appear in the database but who do not themselves do so. Somewhere between 69% and 80% of grain suppliers were therefore also involved in supplying a variety of other goods to the priory in 1495/6. Given that most individuals named in the database occur only once or twice, and that the database has been compiled using accounts from decade intervals, it is likely that a still higher degree of

mixed farming activity would be revealed if this analysis were to be extended in scope to the years immediately preceding and subsequent to 1495/6.

Within the class of local agricultural produce other than grain, certain distinct patterns stand out. Looking first at the various types of fish purchased by the priory it can be seen that, in terms of who was supplying these goods, fish was divided into sea- and river-fish. In the first place were sea-fish, dogdraves and herring, between the suppliers of which there was a significant degree of overlap. A total of 108 suppliers of dogdraves and 117 of herring are named in the bursar/cellarer indentures used for this analysis, but when these two commodities are combined the lower total of 175 distinct suppliers is found, indicating that 29% of these suppliers were engaged in supplying both commodities to the priory over this period. Conversely the suppliers of salmon, the other staple fish eaten by the monks in considerable quantities, were almost entirely specialists who are seen in these accounts supplying only salmon to the priory. There is no overlap at all between the suppliers of salmon and of dogdraves, and only 1% overlap between the suppliers of salmon and the suppliers of both herring and miscellaneous other fish respectively. Moreover, the suppliers of miscellaneous fish also overlap very little with the suppliers of herring and dogdraves, by 4% and 3% respectively. The category of miscellaneous fish includes both the more expensive freshwater fish such as perch and pike and products of the sea such as seals and shellfish. The lack of overlap between the suppliers of these goods and the suppliers of either the staple sea fish or freshwater fish indicates that all of these latter were to some extent 'specialist' commodities. It should be noted, however, that the suppliers of the luxury freshwater fish purchased by the priory are rarely named in the accounts.

This may have been because they were bought at market by agents,³⁴³ but might also hide a greater degree of overlap between suppliers of these and other fish than can be seen here.

All of these fish suppliers were an almost entirely separate group from the suppliers of other commodities to the priory. There was only negligible overlap, less than 3%, between the suppliers of fish on the one hand and of cloth or livestock on the other. This fits with the picture shown by the maps in the preceding chapter (figs. 47, 48), in which clearly differentiated areas of supply can be seen for fish and livestock. Unlike the fish suppliers, however, the suppliers of livestock were by no means specialists. Overall, there was 52% overlap between the suppliers of poultry, cattle, pigs and sheep: that is to say, transactions involving these commodities were made with 567 distinct suppliers, of which 208 were involved in the supply of poultry, 314 of cattle, 248 of pigs and 90 of sheep. Suppliers were most likely to combine the sale of poultry with the sale of pigs (32% overlap), poultry with cattle (20% overlap) or cattle with pigs (16% overlap). Mixed farming was clearly very common, and there was 47% overlap between the suppliers of all three of these commodities. The only type of livestock which stands out as being largely the preserve of the specialist farmer was sheep, perhaps because of the marginal land which could be used for this purpose. Certainly, sheep-farmers were the least likely to be involved in raising other livestock: there was only 10% overlap between the suppliers of sheep and pigs, 9% for sheep and cattle and 6% for sheep and poultry.

There was also only a small degree of overlap between the suppliers of such agricultural produce and the suppliers of manufactured and imported goods

³⁴³ See chapter five, pp.247-50.

to the priory. The greatest correspondance to be found here was between cloth suppliers and the suppliers of fish (who overlapped by 4%) and of livestock (who overlapped by 9%); these overlaps were accounted for by small parcels of cheap cloths which may well have been of local manufacture. The suppliers of Spanish iron show a 2% overlap with the suppliers of cloth and a 1% overlap with the suppliers of fish, whilst the suppliers of wine show a 2% overlap with the suppliers of fish. Evidently, the overlap between the suppliers of agricultural and manufactured goods was negligible. Even the suppliers of locally-produced Weardale iron were an almost entirely separate group, overlapping only with the priory's livestock suppliers and even then by only 1%.

The suppliers of imported goods (wine, spices and Spanish iron) show a slightly greater degree of specialism than the suppliers of agricultural produce, but overlapped much more with each other than they did with the suppliers of local products. The greatest correspondance was between the suppliers of wine and of Spanish iron, who overlapped by 13%. Spice suppliers were a more distinct group, overlapping with the suppliers of Spanish iron by 5% and with the suppliers of wine by only 3%. The priory's purchases of cloths specified to have been imported (in other words, of cloths designated as 'Flemish' or 'Holland' cloths in the accounts) do not show up in these statistics since only a small number of such purchases are recorded. However, it is worth noting that seven of the ten named suppliers of such cloths also appear in the priory accounts supplying other imported goods: two supplying Spanish iron only, one supplying wine only, one supplying spices only, and one each supplying a combination of spices and wine, spices and Spanish iron and Spanish iron and wine.

The distinctiveness of the group of import merchants active in Newcastle at this period is also indicated by the fact that the dealers in Weardale iron were an almost entirely separate group, and did not overlap to any notable degree with the suppliers of imported iron.³⁴⁴ Only two of the fifty-four merchants who sold local iron to the priory also sold imported iron. These were Robert Stroder, who supplied small amounts of both in 1514/5 only; and Richard Dixon, who supplied 40 stones of Spanish iron in 1478/9 and 20 and 40 stones of Weardale iron in the following two years respectively. None of the merchants who sold Weardale iron to the bursar supplied the priory with either spices or wine. In contrast, just under a quarter of the merchants who supplied imported iron are recorded in the bursar's and hostillar's accounts as selling wine to the priory in this period (with several others sharing a surname with other wine suppliers) and three of these seventeen also supplied some dried fruit. In addition, only one of all the 54 names recorded here as dealing in local iron also appears in the Newcastle customs accounts, that of William Kirklay. He sold Weardale iron to the priory on one occasion only, in 1496/7, along with several other merchants. The name may or may not refer to the same man, but it seems reasonably likely that it did, since the only transactions recorded for him in the customs accounts are two small exports of wool in 1471, and the import of 2, 240 lbs. of osmund iron in 1472.³⁴⁵ Apart from this, none of the suppliers of Weardale iron to the priory are recorded as having engaged in the import or export trades. This local industry was thus the preserve of a group of individuals who were largely separate both from the producers and suppliers of local agricultural produce and from the

³⁴⁴ Details of iron suppliers in the following paragraph are taken from Threlfall-Holmes, 'Iron Production', pp.117-20.

³⁴⁵ pp.113-4, 121.

merchants active in the import and export trade of Newcastle, including those involved in the import and re-sale of iron produced elsewhere.

It is also notable that none of the major suppliers of spices to the priory appears in the surviving customs accounts for Newcastle, whilst those merchants who are recorded as having imported spices into Newcastle are the same men who appear in connection with the import of wine, iron and all sorts of other commodities.³⁴⁶ This implies that these merchants (people such as John Brandling, George Bird, Edward Baxter and Christopher Brigham) were specialists in the sense that they were importers and wholesalers, but whose interests extended to a wide variety of commodities. Conversely, the merchants who sold spices to the priory appear to have been mainly retailers. It should be noted however that the merchants who specialised in the import trade certainly also engaged in direct sales to important consumers such as the priory, but that these sales were always of bulk quantities, so that the distinction is not so much between wholesalers and retailers as such, but between sellers of goods in either bulk or smaller quantities.³⁴⁷ It is possible that these spice suppliers may have purchased for re-sale the spices that were imported into Newcastle, but the customs accounts record very few of these imports, implying that the majority of the spices dealt by local grocers must have come via the London merchants.³⁴⁸ Thrupp has argued that the country as a whole was almost entirely dependent on London for such commodities, and certainly the imports recorded for Newcastle

³⁴⁶This point is made in Threlfall-Holmes, 'Provisioning', p.60.

³⁴⁷Thrupp, 'The Grocers of London', pp.272-277.

³⁴⁸Wade, *Customs Accounts*: spice imports appear thirteen times in the surviving Newcastle customs accounts, sugar on nine occasions (pp.182, 189, 194, 226, 234, 269, 271 (twice) and 275; 'diverse spices' once, p.121; ginger twice, pp.133, 225; and licorice once, p.32.

were neither large, frequent nor diverse enough to have satisfied local demand.

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Families and locations

The differentiation between the suppliers of local agricultural produce and the suppliers of high-value imported goods is maintained in the differing prosopographical profiles of the two groups. The clearest distinction to be seen here is that family name groupings were both larger and more common amongst the suppliers of local produce and Weardale iron than amongst the suppliers of wine or imported iron (the pattern for spices appears to have been similar to that for these latter goods, but there were too few spice suppliers for a comparison to be meaningful). Of the 54 merchants named as supplying the bursar with Weardale iron 32, or 59%, share a surname with at least one other in the same list, whilst 18 of these, 33% of the total, form five groupings of three or more. The incidence of multiple suppliers with the same surname is even higher amongst the suppliers of meat, fish and the other miscellaneous foodstuffs recorded in the bursar/cellarer indentures, of whom 69% shared a surname with at least one other and 48% shared a surname with two or more other individuals. Whilst the sharing of a surname is by no means proof of kinship, it is clear from the accounts that many of the individuals in these family name groupings lived in the same area and were probably related. Relationships are sometimes implied in the accounts by use of the terms 'the younger', 'junior' or 'senior', although this generally only occurs when purchases are made from two men of the same name in the same section of an account; in some cases, a clear family relationship is

³⁴⁹ Thrupp, 'Grocers of London', p.273.

noted in the rentals when a tenancy is taken over by a widow, son or other relation upon the original tenant's death (see fig. 42, for example).

Although the exact proportion of family members implied by family name groupings cannot be calculated, it can be seen that the high occurrence of such groupings amongst the suppliers of local produce contrasts with the much lower occurrence amongst the merchants who sold imported goods to the priory. Only 30% of the suppliers of imported iron fall into surname groups, and only 10% into groupings of three or more; and for the suppliers of wine the contrast is even more marked, 25% sharing surnames but only 4% doing so with more than one other individual. Furthermore, there are three instances in these accounts of merchants with the same surname selling locally-produced goods together, suggesting that they may have been trading as an informal family partnership, a phenomenon which does not occur among the sellers of wine, spices or imported iron.³⁵⁰

Whilst no detailed information about family structure or the length of individual careers can be inferred from these accounts, the occurrence of family name groupings can be used negatively to infer the maximum size of family networks engaged in supplying the priory. It is generally thought to have been the case that medieval merchant families rarely engaged in trade for more than two or exceptionally three generations.³⁵¹ This conclusion is certainly supported by the priory accounts, since under 10% of the Newcastle merchants recorded as supplying the priory share a surname with two or more other suppliers of the

³⁵⁰Richard and William Greneswerd jointly sold 149 stones of Weardale iron to the bursar in 1475/6, and William and Robert Wren sold 40 stones in the same year. In 1504/5, George and Robert Burrell jointly sold 6 barrels of salmon to the cellarer.

³⁵¹W.R.Childs, *Anglo-Castilian Trade in the Later Middle Ages* (Manchester, 1978), p.189, and W.G.Hoskins, 'English Provincial Towns in the Early Sixteenth Century', *Transactions of the Royal Historical Society*, 5th Ser., 6 (1956), p.9, both found this to have been the case.

priory over this period. However, it would appear not to have been the case for some of the more prominent of the local tenant families. The surnames shared by the highest number of individual suppliers of the priory were probably so common as to relate to more than one family: for example, the database contains 28 Robinsons, 18 Johnsons, 15 Pearsons, 14 Thomsons and 12 Atkinsons. However, many of recurring surnames were less prevalent and suggest the presence of substantial family networks, although it is not clear how many generations these represent since many siblings and their spouses may well have traded concurrently. Examples of less common recurring surnames are Lax (nine individuals), Woodifield (eight), Willy and Rakett (seven individuals each) and Fuke (six).

In addition to such differences in family structure and the size of surname networks, the locations with which suppliers of local and other goods are associated in the accounts are also clearly differentiated. The overwhelming majority of import merchants came from, or at least had settled in and did most of their business at, Newcastle or other major regional centres, whereas local produce was sold predominantly by the producer from the place of production.³⁵² This applied not only to agricultural produce such as grain and livestock but also to local iron; all the purchases of local iron for which a place of purchase was specified in the accounts were made at Muggleswick, and although the 'address' of a merchant is only infrequently and erratically specified in the priory accounts, where such detail is given small local placenames predominate in the records of local iron purchases.³⁵³ It is notable that the vast majority of the place name mentions in the wine and imported iron accounts refer to Newcastle, which is not

³⁵² See chapter four, pp.211-26.

³⁵³ Threlfall-Holmes, 'Iron Production', p.119.

mentioned at all in the local iron purchases. The table below demonstrates this difference by listing the place names mentioned in connection with the bursars' purchases of wine and local and imported iron. As has been seen, agricultural produce was bought from a much wider range of local places; for example, grain was bought from 23 and cattle from 66 locations.

Fig. 54: Place-names mentioned in the wine and iron sections of the bursars' accounts, 1464-1520

Wine merchants	Spanish iron merchants	Weardale iron merchants
Newcastle	Newcastle	Muggleswick
Hull	Durham	Durham
York	Hull	Unthank
Durham	Nether Heworth	Knitsley
London	Gateshead	Lanchester
	Wallsend	Weardale
	Stockton	Whitehall
		Edmondbyers
		Espershields
		'Colpekyn' (Coldpike Hall?)

Moreover, in stark contrast to the merchants supplying imported goods to the priory (the majority of whom were from Newcastle) only four suppliers from Newcastle are to be found supplying what may have been local produce. These are George Bird (who supplied oil in 1485 and stockfish in 1495), John Brandling (who supplied eels in 1515), Edward Baxter (who supplied oil in 1504 and herring in 1515) and Robert Stokall (who supplied eels and herring in 1474). It is interesting to note that these men did not supply any of the farm produce that made up the vast majority of the foodstuffs bought by the priory, but only goods that were to some extent processed. The oil may have been imported, or may have been of local manufacture, for the type of oil is not specified; the herring, eels and stockfish were probably all locally caught and processed (the herring

and eels were sold in barrels, salted). All of these men were well-known Newcastle merchants, and also supplied imported goods to the priory.³⁵⁴ George Bird supplied wine on eight occasions, Edward Baxter supplied wine twice and dried fruit once, Robert Stokall supplied wine twice and Spanish iron five times, whilst John Brandling supplied wine seven times and dried fruit and Spanish iron once each.³⁵⁵

In addition to these Newcastle merchants, seven names associated with Gateshead appear in the database. Little is known about most of these, who do not appear in any civic records or customs accounts, but it is notable that like the Newcastle merchants they were not selling basic foodstuffs to the priory but were supplying oil, salmon (probably salted) and cloth. These seven were the widow of Robert Rede, who sold salmon in 1504/5; Thomas Carr, who sold linen in 1501/2 and salmon in 1504/5; Thomas Robinson, who sold oil in 1495/6; John Robinson, who sold oil in 1504/5; John Laxton (described on one occasion as of Gateshead and on another, more specifically as of Pipewellgate) who sold salmon in 1467/8 and 1504/5; John Pearson, who sold haircloth in 1505/6, and John Brown of Pipewellgate who sold holland cloth in 1466/7 and salmon in 1467/8, and who also supplied Spanish iron to the priory in the years 1475-7.

Male and female suppliers

The inclusion of first names for almost all suppliers named in the accounts has meant that it has been possible to look in some detail at what difference, if any, the gender of a supplier made to their supply relationship with the priory. Just enough transactions involved female suppliers for meaningful

³⁵⁴ Threlfall-Holmes, 'Provisioning', pp.67-8.

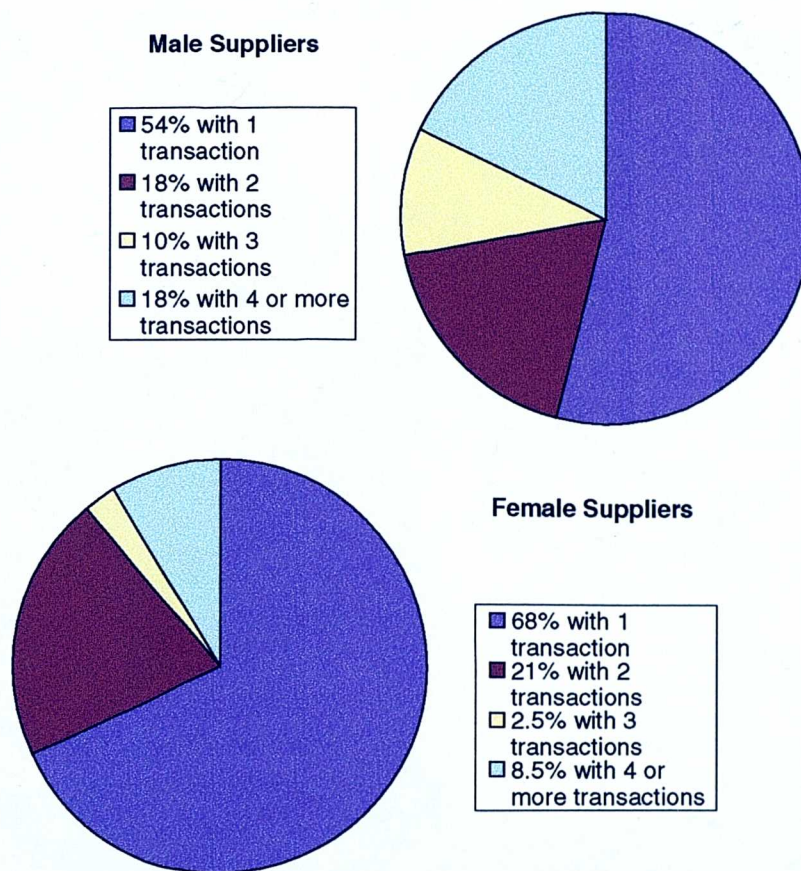
³⁵⁵ Threlfall-Holmes, 'Provisioning', pp. 94-6.

comparisons to be made between the cohorts of male and female suppliers on such issues as the number of transactions in which they participated and the average value of such transactions. In addition, the accounts include sufficient information to permit a study of the types of goods supplied by each, and the tendency or otherwise for women to engage in business only on their husbands' death. Out of the 3346 transactions recorded in the database, the gender of the supplier is unknown in 335 cases, or 10%. The remaining transactions comprises those in which the supplier is named, in which case their gender has been inferred from the christian name or from the description 'widow', and those for which only the office of the supplier is given (e.g., 'the vicar of Dalton' where the supplier has been presumed to be male). Of these 3011 transactions, 180 involved female suppliers and 2831 male. Females were thus active in 6% of the transactions made by the priory for which the gender of the supplier is ascertainable.

The 180 transactions involving a named female supplier were made by a total of 119 individually identifiable women, whilst the 2498 transactions involving a named male supplier were made by 986 individually identifiable men. It should be noted that all of the transactions associated with female suppliers are allocatable to an A-, B- or C- coded supplier, compared to only 2498 of the 2831 male transactions. This is because it has been possible to impute the fact that a supplier was male even when only his office was given; it is highly unlikely that this affects the accuracy of these figures, which are in any case subject to a 10% margin of error due to the incidence of unstated suppliers in the accounts. The figure of 6% female participation uses the larger of the two male figures as more accurate for overall statistical purposes, whilst the

following comparison of patterns of transactions in male and female suppliers uses only those transactions for which an individual supplier can be identified.

Fig. 55: The distribution of transactions per supplier by gender, in the databased accounts 1464-1520



Not only did men participate in 94% of the transactions looked at here, compared to only 6% involving women, but the incidence of repeated involvement in supplying the priory was also higher amongst men. The average number of transactions per female supplier was 1.5, compared to 2.5 for male

suppliers, and whilst most individuals participated in only one transaction whatever their gender, this was the case for a smaller proportion of men than of women.

In addition, the average values of these transactions were significantly higher for male suppliers than for female suppliers. Overall, the average value of a transaction involving a female supplier was 11s.8d., compared to an equivalent figure of 17s.2d. for transactions involving a male supplier. This tendency for transactions involving men to be worth more on average was not simply a byproduct of a few men being involved in some major transactions, but applied even when only those individuals who supplied goods on only one or two occasions are considered, although the gap was smaller amongst the suppliers who traded only once with the priory. The average transaction value for those involved in only one transaction was 12s.3d. for women and 15s.7d. for men, while for those involved in two transactions these figures were 7s.6d. and 16s.11d. respectively.

The commodities supplied to the priory by women were not dramatically different from those supplied by men, but the relative proportions of various commodities supplied by men and women did differ somewhat. The table below shows the percentage of male and female transactions involving different commodities, and it can be seen that women were more likely to be engaged in the supply of cloth than men, whereas livestock was more likely to be supplied by men. Roughly the same proportion of men and women were involved in the supply of fish overall, but women were twice as likely as men to supply dogdraves. However, the significance of these figures must not be overstated: whilst a higher proportion of women than of men supplied cloth, for example, it

should be remembered that the vast majority of the cloth acquired by the priory was in fact supplied by men, since they were represented in so many more transactions.

Fig. 56: Breakdown of the commodities supplied by the gender of the supplier, in the databased accounts 1464-1520

Commodity	% of Female Transactions	% of Male Transactions
Cloth	45.6	31.8
Fish	17.2	16.1
<i>Dogdraves</i>	10.0	4.6
<i>Herring</i>	6.1	6.3
<i>Salmon</i>	1.1	2.8
<i>Other fish</i>	0	2.4
Livestock	36.0	49.6
<i>Cattle</i>	13.3	14.5
<i>Poultry</i>	11.1	17.7
<i>Pigs</i>	8.3	13.0
<i>Sheep</i>	3.3	4.4
Miscellaneous other goods	1.1	2.5
Total:	99.9	100.0

The table above includes only those commodities which were noted in the database, and thus excludes wine, spices, iron and grain. However, very few women indeed were involved in the supply of these commodities; one woman supplied spices and three supplied Spanish iron in this period, and all but one of these were clearly recent widows continuing or winding up their late husbands'

businesses.³⁵⁶ Similarly, only five of the 127 suppliers of grain to the priory in 1495/6 were female.

It is notable also that the five women who did supply grain to the priory in 1495/6 were all described in the accounts only as their husbands' widows. One indication of the extent to which the women who appear in these accounts were economically active in their own right rather than simply administering their husbands' estates on their deaths is the way in which they are described in the accounts. The majority of women recorded here were described in terms of their husband, mainly as their widow. For example, the five women who supplied grain to the priory in 1495/6 were 'Robert Lawson's widow', 'Thomas Stoddert's widow', 'John Smith's widow', 'Richard Clifton's widow' and 'Thomas Strangeways' widow'. Of the 119 women named in the databased accounts, 69 (58%) are described in this way. For 37 of these, the husbands' names also appear in these records in their own right; however, the sampling which was necessary in analysing this data means that it cannot be assumed that the remaining 32 widows' husbands were not also active in supplying the priory in other years. Indeed, given that sampling was undertaken at decade intervals the fact that over half of the widows' husbands can be identified is a remarkably high incidence, and it seems probable that the majority of the widows named in these accounts were in fact continuing or winding up their late husband's businesses.

A further three (2.5%) women are described as their husbands' wives, not widows: 'the wife of George Scott', 'the wife of Thomas Ferrour' and 'the wife of Thomas Foster'. For two of the three women who are described as wives the husband's name is not to be found independently in these accounts, but George

³⁵⁶ Threlfall-Holmes, 'Provisioning', pp.63-4.

Scott is the exception. A George Scott is mentioned three times in these records, in 1498/9, 1501/2 and 1503/4, and his wife is mentioned in 1506/7. It is chronologically possible, therefore, that she was in fact his widow, but since the term widow was frequently used there appears to be no reason why it should not have been used here if it were more accurate. It seems more likely that the description 'wife' was the equivalent of the 'goodwife' terminology which is sometimes seen in other medieval records, implying a wife who actively carried out her husband's (or rather, the marital) business either in partnership with him or during his absence on business or civic duties.

The remaining 47 women, 39.5% of those included in the database, are described in their own right, that is, are given their own Christian name without reference being made to a husband. The two most prominent examples are Katherine Bywell and Agnes Brown, who each appeared four times in the accounts. Katherine supplied pullets, pigs, linen and canvas in 1465/6, whilst Agnes supplied linen in 1492/3, hens in 1495/6 and hardyn in 1496/7 and 1497/8. The only woman named in her own right as supplying imported goods was Alice Bird, who supplied Spanish iron to the priory on three occasions over this period.³⁵⁷ However, whilst these women were named and presumably trading in their own right, it would be misleading to assume that they had attained any very high degree of economic independence or equality. Whilst there is little difference between the number of transactions entered into by those women named in their own right and those defined in terms of their husband in these accounts, the average values of these transactions were significantly lower for the first group. Women described as widows had an average transaction value of

³⁵⁷ Threlfall-Holmes, 'Provisioning', p.64.

14s.5d., similar to that for wives at 14s.3d., whereas women named in their own right had an average transaction value of only 7s.6d., only just over half as much.

Case Study: The suppliers of cloth

As can be seen from the above discussion, the number and variety of suppliers and transactions which are recorded in the Durham obediatory present in some ways an embarrassment of riches. Analysis of the information as a whole provides an overview of the broad sweep of individuals who were involved in supplying the priory over this period, and whilst this is valuable in its own right it remains the case that some detail is inevitably lost when suppliers of any amount of any commodity are looked at together. To counterbalance this tendency, this section takes the form of an in-depth case study of the suppliers of a single commodity type. Cloth has been chosen for this case study because it is a category which includes both large and small transactions involving a range of locally and regionally produced and imported goods with a wide range of values (both monetary and social). As such, it incorporates many of the features which have been identified as characteristic of the supply both of local agricultural produce and of manufactured or imported goods.

In total, out of 965 cloth supply transactions 172 (18%) involved unstated suppliers. A further 32 cloth transactions (3%) involved suppliers who were not identified by personal names in the accounts; for example, on four occasions the cloth is simply described as having been purchased 'at London'. On three occasions multiple unnamed suppliers are specified - twice in the bursar's accounts no names are given but the cloth is noted to have been purchased 'from various [people]', and once the vendors were noted to have been 'the tenants of

Aycliffe'. There remain 761 cloth supply transactions recorded in these accounts for which the individual or individuals concerned in the transaction are named. Using the methodology outlined at the beginning of this chapter, 684 of these transactions (71% of the total) can be allocated to 329 individually identifiable suppliers, in other words to suppliers coded A, B or C. The remaining 77 transactions are associated with thirty-four D-coded suppliers, who cannot be confidently identified as discrete individuals, and the figures used below are therefore subject to a margin of error of around 10%. Through the use of the database in this research, it has been possible to analyse very thoroughly the value of frequency of the transactions made, and the range of commodities dealt in, by each individual, and thus to draw some general conclusions about the state of textile trading in the region in this period.

At least 329 individuals can thus be seen to have supplied cloth to the priory in this period. Only a few of these secured the repeat trade of the priory, and those who did so to any great degree were almost entirely those merchants who supplied the expensive livery cloths to the bursar. As many as 229 of these suppliers (70%) were involved in only a single transaction. A further 25% took part in between two and four transactions, while the remaining 5% were involved in between 5 and 80 transactions each, together accounting for 36% of the transactions entered into by the priory.³⁵⁸ The exact distribution of transactions per supplier and the extent to which a few suppliers accounted for a disproportionate number of the priory's cloth transactions are shown in the following table (fig. 57), which includes only those transactions associated with an individually identifiable supplier.

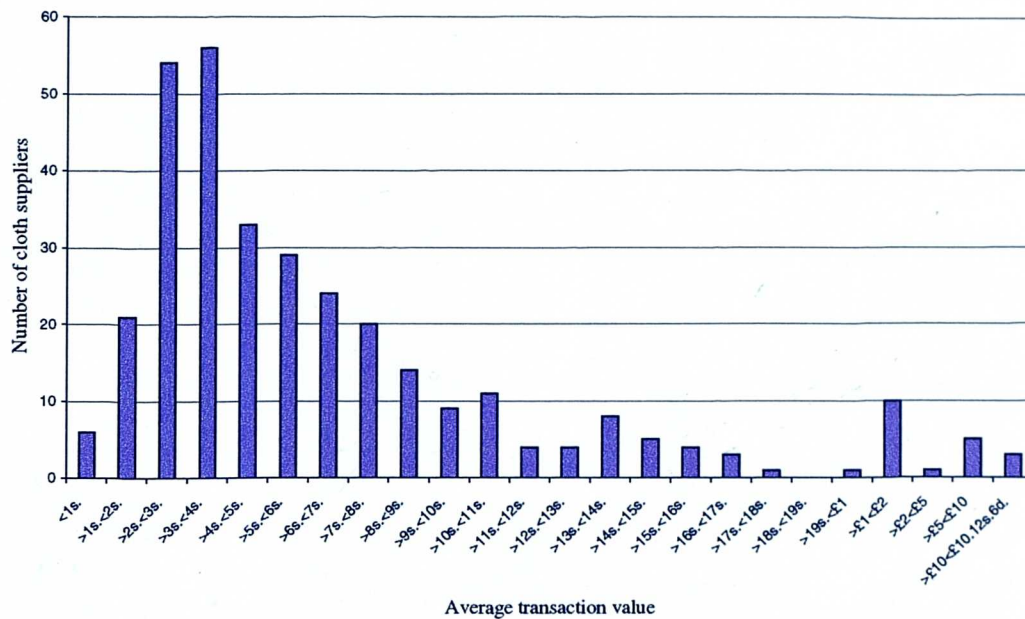
Fig. 57: Number of cloth transactions per supplier, 1464-1520

Transactions	Suppliers	% of All Suppliers	% of All Transactions
1	229	69.6	33.5
2	47	14.3	13.7
3	22	6.7	9.6
4	13	4.0	7.6
5	6	1.8	4.4
6	4	1.2	3.5
7	2	0.6	2.0
10	2	0.6	2.9
15	1	0.3	2.2
19	1	0.3	2.8
41	1	0.3	6.0
81	1	0.3	11.7
Total:	329	100.0	99.9

A similar pattern is to be seen in the distribution of the average value of the transactions undertaken by each individual. As can be seen from the following chart (fig. 58), over half of the priory's cloth suppliers had an average transaction value of under 5s.0d. (170, or 51.7%), whilst the great majority of suppliers had an average transaction value of under 10s.0d. (266, or 80.9%). A further 44 suppliers, 13.4% of the total cohort, had an average transaction value of between 10s.0d. and £1.0s.0d., whilst the average values associated with the remaining suppliers ranged from exactly £1.0s.0d. to £10.12s.6d., these high values being the preserve of the livery cloth suppliers.

³⁵⁸ A similar though not identical distribution was to be found amongst the drapers at Exeter, where five individuals supplied 36% of the cloth sold in the town (not to a single consumer, as here). Kowaleski, *Exeter*, pp.147-8.

Fig. 58: Distribution of cloth suppliers by average transaction value, 1464-1520



Within this overall picture for cloth as a whole, different patterns for the suppliers of different types of cloth can be discerned. The first point to be made is the clear distinction which existed between the major drapers, supplying the relatively valuable woollen cloths used for the various priory liveries, and the shifting mass of smaller cloth dealers supplying the much lower value cloths such as linen, hardyn and sackcloth. A special case would appear to have existed for the more expensive imported linen cloths, although evidence for this is extremely limited since only a few such purchases were made by the priory. The drapers, variously described in these accounts also as clothmen or clothiers, tended to supply the priory's entire livery cloth order in any one year, and often remained the sole supplier of such cloths for several years at a time.³⁵⁹ These suppliers were primarily Yorkshiremen (although London and Durham are also

represented). The suppliers of other cloths were much less likely to appear in the accounts more than once; as the table below (fig. 59) shows, the average number of transactions per supplier of each commodity was low.

Fig. 59: The average number of transactions per identifiable supplier for various types of cloth, 1464-1520

Commodity	Number of transactions	Number of suppliers	Average transactions per supplier
Livery cloth	157	7	22.4
Hardyn	199	148	1.3
Linen	188	147	1.3
Sackcloth	86	71	1.2
Flemish/Holland cloth	17	9	1.9
Haircloth	13	10	1.3
Canvas	8	8	1.0

Moreover, it should be remembered that in all cases the mode number of transactions per supplier was even lower, the majority of suppliers appearing only once or twice and the figures below being skewed by those few suppliers who did achieve multiple transactions. It should also be noted that serge does not appear in the table as virtually no suppliers are named in the chamberlains' accounts where serge purchases are recorded.

The outstanding figure of an average of 22.4 transactions per supplier for the suppliers of the livery cloths emphasises the difference between these men and the suppliers of the other cloths. In most years, the bursars' livery cloth accounts contained five cloth transactions (for cloth for the prior, obedientiaries,

³⁵⁹ The only exceptions come in those few years in which the obedientiaries of the priory are paid an allowance for their robes, i.e., 1486/7, 1487/8 and 1498/9; similarly, the cost of the prior's livery cloth is paid to the prior in 1486/7, 1487/8 and after 1492/3.

gentlemen servants, valets and grooms respectively) all involving the same draper, and thus the average draper supplied these cloths to the priory for a period of four years. However, this average conceals some important variations. In fact, three main drapers had remarkably long-term relationships with the priory, whilst the other four occurred in only a few years. The majority of these men were important mercers and substantial citizens of the major regional towns, in itself a major point of difference with the suppliers of the cheaper cloths, and as such it has been possible to piece together something of their individual biographies.

The most important of all the priory's cloth suppliers in this period, as well as chronologically the first, was John Marshall of York, draper, who supplied all the priory's livery cloths from at least 1449/50 up to 1480/1.³⁶⁰ His identification is made slightly more complex by the fact that two distinct John Marshalls are recorded in the York records for this period, one described as a merchant and one more specifically as a draper. Indeed, in 1454 the two served together as Chamberlains, making it explicit that the name referred to two separate individuals.³⁶¹ The draper, with whom we are concerned, entered the freedom of the city ten years previously in 1454, when he was described as a mercer, and died in July 1481.³⁶² In the intervening 35 years he was clearly a

³⁶⁰ The bursars' accounts exist for all these years from 1462/3 except 1463/4 and 1477/8. John Marshall was also the only named supplier of livery cloths to the priory in the surviving bursars' accounts in the previous decade, those of 1453/4 and 1456/8, and is named in the last surviving account from the 1440s, that of 1449/50. No supplier is given in 1445/6, and the accounts from the intervening years have not survived.

³⁶¹ F. Collins, ed., *Register of the Freemen of the City of York, from the City Records, Vol.1: 1272-1558* (Surtees Society, 96, 1897), p.174.

³⁶² F. Collins, *Register*, p.163. The will for John Marshall, *pannarius*, was dated 2nd July 1481 and granted probate on 26th July 1481. (To avoid confusion it may be noted that a will for the other John Marshall, 'merchant and alderman of York', is also recorded, in 1487). F. Collins, ed., *Index of Wills in the York Registry, 1389-1514* (Yorkshire Archaeological Society Record Ser., VI, 1889), p.111.

prominent member of the town community, and is frequently mentioned in the York Memorandum Book in various civic capacities.³⁶³ He had been supplying the livery cloths to the priory for at least 32 years when his association with the priory ended on his death.³⁶⁴

It is conceivable that William Chymnay, who appears as the livery cloth supplier in the bursars' accounts for 1481/2 and 1482/3, took over John Marshall's contract with the priory as his heir or as the purchaser of his business. He was certainly a York merchant of long standing, having been admitted to the freedom of the city in 1454 although little more is known of him.³⁶⁵ It seems likely that it was the priory who made the decision to cease trading with him two years later, since he continued in business for over 25 years after he last sold cloth to the priory, dying only in 1508.³⁶⁶ This suggests that the bursars' previous choice to trade with John Marshall until his death was a deliberate, active decision rather than the result of apathy, inertia or a general policy of maintaining long trading relationships.

The 1480s appear to have been a time of upheaval in the priory's cloth supply, as in the kingdom at large. There is no evidence that these two phenomena were related, but in the absence of any other explanation it certainly remains a possibility. The accounts for 1483/4, 1485/6, and 1488-91 are missing and so the relationships seen in this decade might have been slightly longer-term than the remaining accounts suggest, but even so change was clearly the order of the

³⁶³In a document of 1st Jan 1458, John Marshall, sheriff, appears as a witness to a feoffment and gift relating to lands and goods in the City of York between two merchants. He was noted to have been present at the creation of the Ordinances of the Fletchers on the 3rd April 1476, when he was described as an alderman, and he was also present at the creation of the Ordinances of the Ostlers on the 20th October 1477, described as 'of the Twelve'. J.W.Percy, *York Memorandum Book* (Surtees Society, 186, 1973), pp. 190, 205, 243.

³⁶⁴The accounts from the three years prior to 1449/50 have been lost, and so it is possible that John Marshall's relationship with the priory was in fact in place for up to 35 years.

³⁶⁵Collins, *Register*, p.174.

decade. Richard Cliff, a draper of Halifax about whom nothing else is known, supplied the livery cloths in 1484/5. In 1486/7 the supplier of the livery cloths was not specified in the account, whilst in 1487/8 the cloths were only described as having been purchased 'at London'. This was particularly unusual and might indicate the temporary disruption of trade in the north-east, since the only other London purchase of cloth in the whole of these accounts was the linen bought from Thomas Ayer.³⁶⁷

For eleven years from 1492/3, however, the priory settled on another long-term supplier, Thomas Richardson, a draper of Leeds.³⁶⁸ Thomas Richardson had substantial land-holdings in Leeds, and was clearly a manufacturer as well as a retailer of cloth, as he also rented a 'tenter', or cloth-stretching house, adjacent to the town fulling mill.³⁶⁹ A will exists for him in the York Registry, dated 1st July 1502 but only granted probate on 9th July 1505.³⁷⁰ In fact, two Thomas Richardsons of Leeds have wills listed in this period, the other being dated 1st June 1502 and granted probate on the 6th July 1502, a year before the cessation of the trading relationship with Durham Cathedral Priory. It may well have been the case that the two men were brothers or other close relations, and the will dates suggest that both men were ill in June/July 1502, perhaps indicating a communicable disease. It is of course possible that after the death of one in 1502 the other took over the priory's supply, but it seems likely that were this to have been the case some distinction would have been made in the bursar's accounts: designations such as 'junior' and 'senior' were fairly

³⁶⁶ Collins, *Index*, p.37.

³⁶⁷ See chapter three, p.154.

³⁶⁸ Thomas Richardson appears in every bursars' account from 1492/3 to 1503/4; only the account for 1502/3 is missing from the series.

³⁶⁹ J.W.Kirby, ed., *The Manor and Borough of Leeds, 1425-1662: An Edition of Documents* (Thoresby Society, LVII, 1989), pp. 25, 30.

commonly used, and their absence here suggests that the same man continued to be referred to.

Thirty-one years later, in 1536/7, a Thomas Richardson was still recorded to be renting the tenter next to the fulling mill, so it would seem likely that the son of the first Thomas Richardson continued the family business.³⁷¹ However, the priory's ability and willingness to change supplier when they chose to do so was demonstrated on the death of Thomas Richardson as it had been on the death of John Marshall, and their custom was transferred to two other Leeds drapers, probably related; Alexander Burton in 1504/5 and Robert Burton in 1505/6. These men are relatively obscure in the surviving civic records, although a will exists in the York Registry for Alexander Burton of the borough of St.Peter, Leeds, dated 21st October 1541 and granted probate the following February.³⁷² Finally, the priory forged the last of its three long-term cloth supply relationships in this period, with William Middley of Durham, again an obscure figure outside these accounts. The series of accounts begins to be broken up at this point so it is not possible to be clear as to exactly how long this relationship lasted, but it probably covered at least the nine years from 1506/7 to 1515/6, and quite possibly longer.³⁷³

In addition to these major drapers, the large number of transactions recorded in these accounts for hardyn and for linen allow an analysis to be made of the suppliers of these commodities. It must be noted, however, that the

³⁷⁰ Collins, *Index, 1389-1514*, p.137.

³⁷¹ Kirby, *Leeds*, p.36.

³⁷² F.Collins, ed., *Index of Wills in the York Registry, A.D.1514 to 1553* (Yorkshire Archaeological Society Record Ser., XI, 1891), p.31. A great many Burtons are listed (pp.28-31) including two Roberts who died in 1532 and 1539 respectively, although the only other Burton to be described as being of Leeds is a William who died in 1512.

³⁷³ Accounts survive from 1506/7-1509/10, and from 1515/6, and in all of these William Middley is named. The pattern set in earlier years suggests that he would have been the supplier in the missing years, and he may have continued after 1515/6.

investigation into the suppliers of linen is rendered less reliable by the existence of a large proportion of unstated suppliers (the supplier is not given in 37% of all the linen transactions in this period). This is a result of a similar proportion of the linen figures being derived from the accounts of obedientiaries other than the bursar, which do not tend to include supplier details. The profiles of supply of each of these commodities parallel, indeed shape, that for the entire cloth supply of the priory, with a majority selling to the priory on only a single occasion.

Fig. 60: Distribution of hardyn transactions
between identifiable suppliers, 1464-1520

Number of hardyn transactions	Number of hardyn suppliers	% of total hardyn transactions	% of total hardyn suppliers
1	117	59%	79%
2	22	22%	15%
3	6	9%	4%
4	1	2%	0.5%
5	1	2.5%	0.5%
11	1	5.5%	0.5%
Total:	148	100%	99.5%

Fig. 61: Distribution of linen transactions
between identifiable suppliers, 1464-1520

Number of Transactions	Number of Suppliers	% of total linen transactions	% of total linen suppliers
1	118	63%	80%
2	20	21%	14%
3	6	10%	4
4	3	6%	2%
5	-	-	-
11	-	-	-
Total:	147	100%	100%

The rather different supplier profile for the expensive imported linens described in these accounts as Flemish and Holland cloths is unfortunately not statistically significant due to the small number of transactions involved. One merchant, William Cornforth, was responsible for nine transactions, 41% of the total number of transactions. Another man, John Atkinson, made three sales to the priory, accounting for a further 14% of transactions, whilst each of the remaining seven suppliers each appear only once. The most significant aspect of this is not the distribution of these few transactions but the appearance of William Cornforth, who has already emerged from these accounts as a Newcastle merchant dealing in high-value imported goods.³⁷⁴ William Cornforth appears in the cloth accounts only selling these imported and relatively expensive textiles, further evidence that the Newcastle import and export merchants dealt in a wide range of imported goods, but largely only in such goods.

In addition to the much smaller average number of transactions per supplier described above, a further way in which the profile of those selling the cheaper textiles to the priory is different from that of the drapers is in the degree of specialism in a particular type of cloth which they exhibited. As has already been noted, the drapers sold only the relatively expensive woollen livery cloths to the priory, whilst these cloths were rarely dealt in and then only on a very occasional and piecemeal basis by other, smaller dealers. Although some degree of specialism can be discerned amongst the suppliers of the cheaper cloths it is rarely very pronounced. Most of the cloth suppliers excluding the drapers, as has been seen, were involved in only one transaction, but of those involved in several transactions it was unusual for a single cloth type to account for more than two-

³⁷⁴ Threlfall-Holmes, 'Provisioning', pp. 59, 95-6.

thirds of these transactions. In the following analysis, only those suppliers involved in five or more cloth sale transactions have been looked at, and the drapers have been excluded. As can be seen, in only one or arguably two cases is specialism total, and on average commitment to a main product accounts for only 60% of a supplier's sales.

Fig. 62: Cloth-type specialism amongst suppliers of cloth to Durham Cathedral Priory who were involved in five or more cloth transactions, excluding the main livery drapers, 1465-1520

Name	Number of transactions	Number of different cloth types dealt in	% of transactions accounted for by main cloth type
Richard Wren	15	3	73%
John Robinson	12	2	75%
William Cornforth	10	3 (all linen-types)	60% (100%)
Thomas Howe	8	2	50%
John Cook	7	3	43%
John Thomson	6	2	50%
Robert Wilkinson	6	3	67%
Thomas Ryhope	6	3	67%
John Clerk	6	3	33%
Robert Simson	6	2	83%
John Bowet	6	2	67%
John Anderson	5	2	80%
Widow Alex. Rob.	5	4	40%
William Robinson	5	1	100%
William Jolybody	5	3	40%
John Sourby	5	2	60%
Jacob Green	5	3	40%

Conclusion

Both the case-study of the priory's cloth suppliers and the overview of the priory's suppliers as a whole show firstly that the monks bought from a wide variety of merchants in each product category, and did not tend to have long term

or exclusive relationships with particular merchants. An important exception to this was in their purchases of certain types of cloth, although even here several names occur over this period. For the other commodities bought, around three-quarters of the suppliers named in the accounts looked at here appear only once or twice over these years.

Secondly, the merchants from whom the monks bought imported and luxury goods - wine, spices, Spanish iron and Holland and Flemish cloth - overlapped to a noticeable degree, whilst the suppliers of lower-value locally-produced goods such as grain, meat, fish, Weardale iron and utility cloths such as hardyn and sackcloth were an almost entirely separate group with again a significant degree of overlap occurring between the suppliers of the various commodities in this class. Two separate conclusions may be drawn from this point: that the distinction made in the previous chapters between the commodities acquired by the tenorial and the market purchasing methodologies continued to be apparent in the individuals who supplied them, and that (with some exceptions, such as livery cloths, furs and sheep) the priory's suppliers did not tend to be specialists but tended to each supply a range of goods within the bounds of the broadest possible commodity classifications.

Further, the distinction between the two groups of suppliers is emphasised by several other features. Suppliers of imported goods tended to be associated with the larger towns, whilst suppliers of locally-produced goods tended to be associated, as has been seen, with the countryside and villages that made up the priory's landholdings. More and larger family-name groupings are also to be seen amongst the suppliers of locally-produced goods, and women were more likely to be active in these areas.

It is also worth noting both the wide-ranging area from which goods were purchased – from Berwick to London – and the strong regionality implicit in the fact that on only very few occasions were cloths bought from outside the North-East. Overall, the large number of people involved in supplying the priory, the fact that so few of these individuals supplied the priory regularly, and the apparent ease with which the priory switched between suppliers, even of specialist goods such as the livery cloths, suggests that a significant degree of choice was available to consumers in the North-East of England. In addition, the fact that this choice is reflected in the accounts, in other words in the actual practice of the priory, implies both that the priory was informed about these choices and that tradition did not stand in the way of their ability to exercise them.

Chapter Seven

Conclusion

Durham Cathedral Priory was an important household in the Northeast of England, not only spiritually but also economically. Comparisons with other major households in the region and in the country at large are hard to draw since for nowhere else has a comparable quantity and quality of evidence survived; however, it would appear from the evidence that is available that whilst Durham Priory was in many ways a typical large establishment, there were also striking exceptions to this picture. In terms of wealth and influence, Durham could be compared only with a handful of other major monasteries and with the principal secular households of the time. The analysis of the diet of the priory in this period that has been made here demonstrates that the monks' standard of living was on an aristocratic scale in many ways, and yet the monks' apparel was startlingly modest in comparison with that bought and used by equivalent households. The structure of the priory's purchasing and economic activity in the region was also atypical, relying very heavily on payments made in kind by tenants as a source of supply.

The priory's diet, a key indicator of the standard of living enjoyed by the monks, can be compared with that found by Harvey for this period at Westminster Abbey.³⁷⁵ Such a comparison reveals a much higher level of spending on luxurious foodstuffs at Durham than at Westminster, as well as differences in the varieties bought which may well reflect regional differences in pastoral farming and in fishing, and thus represent different patterns of consumption to be

found in the North and South of England at this time. Even after making all possible allowances for differences in the data, the Durham monks can be seen to have served four or five times as much meat and 50% more fish than those at Westminster. Of the meats eaten at the two monasteries, beef was by far the most important meat served at Durham, accounting for 66.3% by edible weight of the meat bought by the priory, whilst mutton took second place, accounting for 18%. In contrast, mutton was the most common meat at Westminster, accounting for 46% of the meat served there, and beef was relegated to second place at 35.5%. Similarly, herring accounted for 50% of the fish served at Durham but for only 8% at Westminster, whilst cod were more common at Westminster, accounting for 49% of the fish served there compared to 34.1% at Durham. Furthermore, wine was bought in large quantities by Durham priory: it can be estimated that the average consumption per monk was just over a pint a day, much higher than that for Westminster which was just over a quarter of a pint. The Durham figure even exceeds the higher amounts calculated for other aristocratic households, where the average consumption has been estimated by Dyer to have been around two-thirds of pint.³⁷⁶ In contrast, the cloth bought by the priory for the livery of the prior was relatively modest when compared with that bought by equivalent contemporary households.

The factors influencing the priory's choices of what goods to buy varied according to the particular commodity in question. For a staple need such as grain a certain amount had to be bought each year regardless of the prevailing price or other considerations, and Durham Priory bought a minimum of just under 1300q. of grain in each year. For purchases over this minimum some

³⁷⁵ Harvey, *Living and Dying*, pp.34-71.

³⁷⁶ Dyer, 'English Diet', p.194.

correlation to changing prices can be seen, although the year's prevailing price was clearly not the only factor involved in the decision. In addition, changing prices did not affect all grains equally, and there is some evidence to suggest that the priory bought less wheat and more of other grains in years of high prices.

Wine too seems to have been treated as a staple item of diet by the priory, being bought in large quantities every year regardless of price fluctuations. This was the case despite the fact that the priory was clearly conscious of price changes, there being some evidence to suggest that the bursar was prepared to shop around for his wine and source wine from outside the immediate area when the price was sufficiently different to justify the additional carriage charges incurred. The total amount of wine bought by the priory did increase over this period, and this is correlated with a long-term drop in the average price of wine, but in the short term the priory seems to have been purchasing the required amount of wine despite fluctuations in price. With other luxury foodstuffs the pattern is different. For both dried fruits and sugar, a drop in price over this period is correlated with a significant increase in the amount purchased by the priory. Furthermore, the amount of ginger bought seems to have been directly correlated with fluctuations in its price, so that the amount spent by the communar on ginger varied only a small amount over this period.

A similar distinction can be seen for the cloth bought by the priory. This falls broadly into two categories: that which was bought for utilitarian purposes and that which was bought for display or with conscious social differentiation in mind. A case might also be made for a third category of cloths which fell between these two extremes, such as many of the linens and other middling quality materials such as serge, bought for purposes which were neither purely

utilitarian nor strictly a matter of display – such as bedlinen and undergarments. The priory's purchases of the cheap cloths which were used for a variety of household purposes, such as hardyn and sackcloth, were to some extent correlated with changing prices. This was particularly the case for hardyn, purchases of which more than doubled over this period as the price fell by 50%.

The situation was very different for the cloths, which were bought to be on display and to convey social and hierarchical messages. Vestments were not bought frequently enough for price-responsiveness to be analysed, but when they were bought the prices paid were breath-takingly high (although price-consciousness was still displayed). It is the livery cloths however that best demonstrate the priory's highly developed sense of social stratification, and its conscious use of different qualities and differentially-priced goods to reinforce such divisions. Different qualities of cloth were bought for every level of the household, from the prior to the liveried grooms, and these purchases also make it explicitly clear that the priory was conscious of the relationship of price to perceptions of quality, referring to the different cloths only in terms of their prices and intended wearers.

When the priory came to actually buying the goods which had been chosen, two distinct modes of operation can be seen. Much of the local agricultural produce and other items of local manufacture or provenance which the priory acquired was bought via the priory's network of tenurial relationships. Over 95% of the grain which entered the priory was acquired in this way, as well as around half of the meat and fish, and varying amounts of certain other goods such as honey, salt, oil, and locally-produced cloth. These items were not 'bought' in the usual sense of the word but were given to the priory as payments

in kind for the rents which their tenants owed, or occasionally for other payments due such as that for the purchase of a tithe. Such payments in kind were in widespread use at Durham, being used to some extent in 57% of the rental payments made in 1495/6.³⁷⁷ The use of items other than cash to make such payments does not appear to have been a response to currency shortages, and does not seem to have had any fixed pattern to it. That is, it does not appear that the priory dictated what was to be paid, although they might have suggested what would be most gratefully received in any particular year, and were probably able to exercise a veto, in other words to refuse to accept an unwanted item in payment. In the absence of any evidence for an element of compulsion, the continuance of this system thus implies that it was mutually agreeable to both priory and tenants, and moreover that in general a good working relationship must have existed between both parties.

The market was not redundant, however, being used both for other goods – mainly manufactured, processed or imported items – and for top-up purchases of the commodities which were mainly bought using the tenorial system. For example, grain was almost entirely acquired from tenants of the priory as payment in kind, but additional small amounts were bought on the open market in most years, and the market was resorted to on a large scale in years of dearth such as the early 1480s, when grain could be bought from outside the region at significantly lower prices. Around half of the fish and livestock which entered the priory was also bought, often from the same individuals who also supplied some in the form of rental payments, and this demonstrates the lack of any sharp

³⁷⁷ Lomas, 'Priory and its Tenants', pp.117-9.

dividing line between either the goods or suppliers involved in these two methods of supply.

Several interesting points emerge from a study of the priory's market purchases. In the first place, it is notable that the majority of the priory's needs could be and were supplied from the immediate Durham and Newcastle region. This was increasingly the case over this period, and Newcastle was increasingly the regional focus of the priory's purchasing. In particular, the subordinate place of London in the provisioning of the priory is notable, and this was the case even for luxury items such as malmsey and spices. Secondly, it can be seen that the priory used agents extensively, even when purchasing goods from this immediate region. These agents could be priory servants, officials, monks or simply merchants or individuals known to the priory who happened to be in the right place at the right time, and they were used throughout the whole purchasing process, from collecting samples and transmitting them to the priory, to choosing goods, paying for them and sometimes arranging for their carriage to Durham or bringing them back personally. Credit arrangements may well have also been one of the agents' responsibilities, and there must have been some element of credit involved in many transactions which were carried out at second- or third-hand, but the evidence for this is scanty since precise dates of transactions and payments are only rarely given in the priory records.

Acting as an agent for the priory was one of the ways in which some of the suppliers of the priory were involved in more complex relationships with the priory than simply that of supplier and customer. As has been seen, many of the priory's suppliers were also tenants; others were clearly the families of monks, and still others are listed in the *Liber Vitae* for no apparent reason, but may well

have had some sort of confraternity relationship with the priory which went beyond the purely mercantile.

The suppliers of the priory can be looked at as two main cohorts, on the one hand those who supplied the kind of local agricultural produce which was frequently bought via the tenurial system outlined above, and on the other hand those who supplied other goods primarily via the market system. Within each of these categories there was some overlap between the suppliers of different goods (although this was much more the case for the suppliers of local produce than for the suppliers of other goods) but there was virtually no overlap between the suppliers of these two categories of goods. The prosopographical profiles of the two groups of suppliers also differed significantly; suppliers of local produce were more likely to appear alongside others of the same surname and seem to have had larger kinship groups involved in the provisioning of the priory than can be seen for the merchants and other suppliers of manufactured and imported goods. The locations with which the two groups are associated in the accounts also differ, small local place-names predominating for the suppliers of local produce and references to London and the major regional market centres (primarily Newcastle) being reserved for the suppliers of other goods.

Overall, however, the most notable feature of the priory's suppliers as a group was their number and variety. Well over 1200 suppliers were involved in provisioning the priory over this period, and these individuals ranged from small tenants of the priory involved in a single transaction to major merchants supplying high value items over a period of years. The majority of the suppliers appear only infrequently in the accounts; of the individuals identified here, over half appear only once and around two-thirds only once or twice. In each product

category (with the sole exception of the livery cloths bought by the bursar) the priory tended to spread its business between multiple suppliers in each year, and this could involve as many as the 127 individuals who supplied grain in 1495/6. Even the priory's wine purchases were split between an average of five merchants in each year, and never less than two.

The large number of individuals whom these accounts reveal to have taken an active part in the provisioning of the priory implies that the Northeast region was one in which competition flourished, and in which the state of trade was sufficiently healthy to enable the numbers involved to make a satisfactory living. This is particularly significant when looking at the state of the import and luxuries trade in Newcastle; the numbers involved in this trade, and the fact that the priory was able to increasingly source even the most expensive luxuries from there rather than from London suggests the existence of a regional economy which was afloat, if not positively buoyant.³⁷⁸

Ultimately, however, these accounts emphasise the extent to which the economic activity of the priory was inextricably entwined with its other activities as landlord, church and great household. Marketing, purchasing, renting and even selling were not carried out as economically discrete activities, but were undertaken within a structural and administrative framework which bound all such transactions together. The priory's choice of suppliers was based on

³⁷⁸ This point is made in Threlfall-Holmes, 'Provisioning', pp.70-1. The question of the economic health of Newcastle in this period is one which has been debated, but which remains unresolved due to the survival of little direct evidence such as customs accounts or town records. See for example Hoskins, 'English Provincial Towns', p.4; R.B.Dobson, 'Urban Decline in Medieval England', *Transactions of the Royal Historical Society*, 5th Ser., 27 (1977), p.19; A.F.Butcher, 'Rent, Population and Economic Change in Late Medieval Newcastle', *Northern History*, 14 (1978), p.75; C.Pythian-Adams, *Desolation of a City: Coventry and the Urban Crisis of the Late Middle Ages* (Cambridge, 1979), pp.16-8; and A.J.Pollard, *North-Eastern England during the Wars of the Roses* (Oxford, 1990), p.74.

unquantifiable factors such as personal knowledge, history, family and land tenure as well as on clearer cut issues such as the availability of goods and the prices being charged, just as choices about which commodities to purchase could be based as much on considerations of display, social stratification, rank and position as on more narrowly economic matters. At the same time it is important to note that such choices and relationships were not fossilised, that is to say they were not based on tradition and expectation to the exclusion of flexibility, and (surprisingly) were not based on long-term relationships with suppliers except in exceptional cases. The priory was extremely price-conscious, whether for a particular commodity this meant seeking out the best bargain, adapting the amount bought to the prevailing price or simply being conscious of and making use of price differentials for their own purposes, such as in establishing and maintaining the differentiation between ranks with the livery cloths. These accounts reveal the obedientiaries of Durham Cathedral Priory to have been sophisticated consumers, clearly able to make rational and informed choices and to balance a range of different factors against one another in making such choices.

Appendix I

Database Design and Methodology

This study is based on the obediatory accounts of Durham Cathedral Priory, from 1464 to 1520, from which entries relating to the priory's purchasing have been extracted. In particular, the study focuses upon the bursars' purchases of grain, cloth, wine and spices and the purchases of foodstuffs recorded in the bursar/cellarer indentures, but other accounts have also been used where relevant. A database was created in order to facilitate the analysis of such a large quantity of material (several thousand entries), and to make the drawing of wider conclusions possible in the course of further research into these accounts, and this appendix discusses the design issues encountered and the solutions used in creating and modifying this database.

Historical data of the type encountered in the Durham Cathedral Priory accounts can only rarely be entered into a database without any problems being encountered. Difficulties arise because of the nature of the information contained in historical sources, which, unlike the modern business data for which database programmes are primarily designed, is rarely uniform either in form or units. Being taken from accounts, the basic structure of the particular evidence used in this analysis was not difficult to use; however, there were still several issues to be resolved before the design of the database could be finalised. In particular, the accounts contained frequent mathematical inconsistencies, quantities were given in a variety of units, and it was often impossible to tell whether individuals with similar or identical names, mentioned as a suppliers in different years, could be identified with any confidence as the same person.

In designing this database, it soon became clear that some assumptions had to be made prior to entering the data. This is generally the case when using a non-historically designed database (such as Access, used in this project): these databases are method-orientated rather than source-orientated, in other words they require a structure to be imposed on the data from the outset. The database is designed with the questions that it is desired to ask of the data in mind. Whilst it may be argued that this compromises the purity of the sources, there are compelling reasons for choosing this approach. There are databases available which are specifically designed for historical uses, notably 'kleio', but these are extremely complex and unsuitable for a limited project such as this. Although the data entry process used with these source-orientated databases avoids any premature judgements being made about the relative importance of the elements contained within the original source, analysis of the data is an extremely time-consuming process requiring complex computer programming. These databases therefore demand an investment of time in mastering their complexities which is not practical for a time-limited project such as a this. With method-orientated databases the time spent on standardising the data to be entered, and on designing the database's structure, is amply repaid at the analysis stage.³⁷⁹

This database was designed, therefore, with certain principal questions in mind. In the first place, it was desirable to be able to compile price information over time for each commodity (and potentially for groups of commodities).

³⁷⁹ Reference works on computer applications date notoriously quickly; the journal *History and Computing* will contain the latest developments. A good general guide to the subject is C.Harvey and J.Press, *Databases in Historical Research* (London, 1996). The many possibilities opened up by the use of computers for historical research are sketched out (with outdated references to the technology available) in P.Denley and D.Hopkin, *History and Computing* (Manchester, 1987) and E.Mauwdsley, N.Morgan, L.Richmond and R.Trainor, eds., *History and Computing III: Historians, Computers and Data – Applications in Research and Teaching* (Manchester, 1990).

Secondly, the amounts spent and the volumes bought by the priory in different years might be interesting. Thirdly, it was hoped that it might be possible to see who the suppliers of goods to the priory were - with this in mind their individual names, hometown, and any additional information relating to their business, associates or the circumstances surrounding the transaction would be of use.

A preliminary sampling of the cloth entries contained in the priory accounts immediately raised several issues to be resolved before the database could be begun. These difficulties, and the solutions incorporated into the database, are discussed below.

Non-standard measures and units

The first problem which was apparent, and the simplest to solve, involved the non-standard units of measurement used by the monastery. Two issues arise here: first, it is necessary for the measures used in the accounts to be understood, and secondly a decision has to be made about how such measures are going to be entered into the database in a usable format. The following discussion of the measures used in relation to the priory's cloth purchases illustrate these points. In all the Durham obedientiary accounts, cloth is primarily measured in ells. The cloth purchases recorded in the wardrobe sub-sections of the bursars' accounts also frequently use the terms 'whole cloths' or 'cloths', and from the entries which mix both these terms it can be calculated that the monks consistently used a system whereby a single whole cloth is equivalent to 24 ells.³⁸⁰ This is

³⁸⁰ An example of this calculation may be taken from the bursar's 1465-6 wardrobe account, which includes the entry '4 cloths and 4 ells, @ 50s. per cloth, = £10.8s.4d.'. We are told that a whole cloth costs 50s., and so can calculate that 4 cloths cost a total of £10. This leaves us with 4 ells and 8s.4d., so a single ell must have cost 2s.1d. (8s.4d. divided by 4). If we wish to see what proportion this is of the cost of a whole cloth we can divide 50s. by 2s.1d., which divides exactly giving an answer of 24. In other words, an ell costs exactly 1/24th of the cost of the whole cloth.

consistent with the standard dimensions for English woollen cloths, two yards wide by 24 yards long.³⁸¹ The term *virga*, or yard, is also occasionally used in these accounts, and it is clear from the context of these occurrences that the terms ell and yard were used interchangeably here and meant the standard English yard of thirty-six inches.³⁸²

There are only two examples of other cloth measures occurring in these accounts. In the bursar's wardrobe account for 1467/8, there is a single entry which uses the term *rays*, in noting the purchase of '3 cloths and 26 *rays* of striped cloth, at £2.13s.4d. per cloth: £8.7s.7d.'. By using the price paid it can be calculated that a *ray* cost 3½d, and thus (based on the assumption that a cloth is 24 yards of 36 inches long), that a ray was equivalent to 4.7 inches. This is an awkward and non-intuitive figure and it may well have been the case, given that the cloth was striped, that the reference is to a single stripe-width, i.e. to a repetition of the print or weave pattern of the cloth, rather than being a fixed measurement. For the purposes of the database, the figure of 4.7 inches calculated here was converted into the equivalent number of ells: 26 rays of 4.7 inches each being equivalent to 122.2 inches, or 3.4 ells.

This calculation may be replicated on this example from the bursar's 1508-9 wardrobe account, '6.5 cloths and 9 ells @ 40s. per cloth = £13.15s.0d.', yielding the same result. The conclusion from this calculation that an ell is 1/24th of a cloth strictly rests on the assumption that no bulk discount was applied in the sale of whole cloths, but since the ells in these cases were all being bought in addition to whole cloths, and in view of the exact division, this seems valid.

³⁸¹ These dimensions were specified in the assize of cloth introduced into England in the 1410 and 1411 statutes. See also R.H.Britnell, *Growth and Decline in Colchester, 1300-1525* (Cambridge, 1986), p.164; Heaton, *Yorkshire Woollen and Worsted Industries*, p.4, and A.R. Bridbury, *Medieval English Clothmaking, An Economic Survey* (London, 1982), p.109, who points out that these were the standard dimensions at the end of the fulling and tentering process, rather than off the loom.

³⁸² In 1499, the first entry in the bursar's wardrobe account reads '1 [whole] cloth and 3 *virge* of cloth... £4'. In every respect but the use of the word *virge* rather than *uln* this is identical to the first entry in the three accounts following it and five of the seven accounts preceding it. This coincidence of quantities and cost strongly suggests that the two terms were interchangeable.

The other non-standard measure used in these accounts is again used only once. In the bursar's necessary expenses for 1466/7, a consignment of sackcloth is described as containing '7 *dd* and 4 ells'. In most cloth contexts, the *dd* or *decena* would be taken to mean a narrow woollen cloth 12 yards long.³⁸³ Here, however, it means simply twelve yards of cloth (i.e., not necessarily in a single piece). This can be seen to have been the case because the breakdown of purchases lists quantities of 40, 28, 4, 4, 4 and 8 yards being bought from different suppliers, and these quantities are clearly not consistent with seven twelve-yard 'pieces' and four separate yards having been purchased.

Apart from the livery cloths, which do seem to have followed standard dimensions, the textiles purchased by the priory may have come in a variety of shapes and sizes. Dimensions for most varieties of cloth are not given or deducible from these accounts, but the serges and woollen cloths bought by the chamberlain do have some size information associated with them. In particular, the black serge accounted for by the chamberlain is often specified as having been bought in pieces of either 12 or 14 ells, with the price per piece varying accordingly.³⁸⁴ The width of the pieces is not mentioned, suggesting that it was standard. Also in the chamberlains' accounts, however, woollen cloth is often described as being either narrow or wide. The price difference between the wide and narrow cloths implies that wide was exactly twice the width of narrow

³⁸³ Wade, *Customs Accounts*, p. 310, defines a dozen as either simply twelve, or 'a piece of narrow wool cloth, 12 yards long, the equivalent of a quarter of a cloth of assize for taxation purposes'. Cf. Britnell, *Colchester*, p.58: in Colchester the equivalent cloth was a *decena*, which was apparently around 12.5 yards long, and could be broad or narrow. It should be noted that the discussion of the dimensions of the *decena* points up the potential confusion between ells and yards which can occur, since in the Colchester records an ell meant 45 inches.

³⁸⁴ For example, in 1476/7 the chamberlain bought '6 black serge cloths...5 cloths of 12 ells at 10s. each, and 1 cloth of 14 ells at 11s.8d.'. In 1475/6 and 1480/1, only one of the lengths is mentioned, the other apparently being left to the reader to infer: so for 1475/6 the black serge entry reads '5 cloths of 12 ells at 10s. each, and 2 cloths at 11s.8d.', and for 1480/1, '6 cloths of 12 ells at 9s.6d. and 3 cloths at 11s.4d.'.

cloth.³⁸⁵ It is worth noting as an aside that although no dimensions for linen cloths are given in the priory accounts, on one occasion in 1486/7 the linen purchased by the chamberlain is described as narrow. The price paid for it is similar to that paid for linen in other years, at 4d. and 5d. the ell suggesting that the dimensions were similar to those of the cloth normally bought, and it may well be that linen was normally of similar width to narrow woollen cloth.

In making the database used in this research, the operation of two basic principles dictated the way in which this variety of measures would be handled. First, it was necessary that they should all be expressed in terms of a consistent unit or set of units, so that mathematical operations could be carried out on the data at the analysis stage. Secondly, it was desirable that the original form of the data should be retained in case unforeseen factors became relevant at a later date; in case it later became desirable to distinguish between cloth purchases expressed in terms of whole cloths and those expressed in terms of ells or yards in the original accounts, for example. It was therefore decided that all cloth purchases should be expressed in ells in the 'quantity bought' field of the database, and that a note should be made in the 'memo' field if they were originally given otherwise. It was further decided that the monastic practice would be followed with regard to the widths of cloths, and so the quantities given refer only to the length of cloth bought, whilst the descriptive prefixes 'wide' or 'narrow' have been added to the name of the commodity where appropriate.

It is clearly the case that different units are appropriate for different commodities. Rather than create an additional 'units' field which would involve

³⁸⁵ In 1480/1, 1504/5 and 1509/10 the chamberlains' only woollen cloth purchases were of narrow cloth, but in all the other years for which accounts exist both narrow and wide woollens were bought. In general, the price per yard of the wide variety was twice that of the narrow, but

a great deal of repetitious data entry and take up unnecessary computer memory, it was decided that the units involved in each commodity would not be explicitly stated in the database but would be consistently the same within each commodity and be documented separately. Grain is thus measured in quarters, honey in gallons and in oil in barrels. For most items, such as livestock, the units involved are individual items: '16 sheep', '2000 herring', '21 salted salmon'. The only exception to this rule comes when non-standard units are used in the accounts which cannot be easily translated into the relevant standard unit. In this case, the unit has been entered as part of the commodity name, effectively making it a separate commodity for the purposes of any mathematical operations that may be carried out on the data. For example, herring and salmon are usually given in terms of the total number of individual fish bought in a particular transaction, but in addition the database includes a certain number of 'barrels of herring' and 'barrels of salmon', where the quantity involved refers to the number of individual barrels. It is clearly important that the units used in entering data are borne in mind at the analysis stage.

Arithmetical inconsistencies in the accounts

The second issue encountered in designing this database was that there are several entries in the obedientiary accounts which contain arithmetical inconsistencies. In particular, it is very common to find that the entries containing a list of multiple suppliers of a total amount of a commodity do not add up correctly. For example, the second cloth entry in the bursar's necessary expenses section for 1494/5 reads 'Paid for 89 ells of hardyn - John Jackson (10),

some variation about this average was usual. For example, in 1478/9 wide woollen cloth cost 9d. per ell, while narrow cost 4d., 4.5d., or 5d. per ell.

John Wilson of Aycliffe (10), Robert Simson (10), Thomas Keyrston (4), John Thomson of Aycliffe (12), Richard Nixon (10), John Smith (20) and Robert Thomson (9), at 2.5d., - 22s. 8.5d.”. In this example, the stated amount bought is 89 ells, but the total number of ells specified is 99; and dividing 22s. 8.5d. by 2.5d. gives a third figure of 109 ells. This is by no means an isolated example in these accounts, and a further complication is introduced into some entries when more than one unit price was paid for a particular commodity. For example, the second cloth entry in the bursar’s necessary expenses account for 1498/9 states at the beginning that it refers to the purchase of 338 ells of linen; goes on to specify the purchase (in 25 separate transactions) of quantities totalling 327 ells, and concludes by stating that 180 of these ells were bought at 4d. per ell and 148 at 6d. per ell, a total of 328 ells.

Faced with such inconsistencies, the first question to be addressed was whether they were in fact errors, or whether they concealed some hidden factor being taken into account. For example, it is possible that entries such as these might be the result of the unstated operation of a bulk price discount or ‘free gift’, or of concealed interest charges on credit allowed, for example.³⁸⁶ In order to investigate this a sample of these deviant entries was taken, and for each entry the ratios between the different permutations of expressions of quantity were calculated. That is to say, the ratios of x:y, x:z and y:z were calculated, where x equals the quantity of a commodity stated at the beginning of an entry, y equals the sum of the amounts associated with each supplier in a list such as those instanced above, and z equals the amount which would have to have been bought

³⁸⁶ For an example of such a factor being applied to purchases on a systematic basis, see R.H. Britnell, ‘Avantagium Mercatoris: A Custom in Medieval English Trade’, *Nottingham Medieval Studies*, XXIV (1980), pp. 37-50.

at the stated price in order to produce the total expenditure given in each case. The premise on which this analysis was conducted was that if there was any pattern at all in these inconsistencies it would show up in these ratios, either as a consistent percentage error or at least as a consistent direction of error, although the cause of the pattern would still not be explained. In the event however no patterns at all were discernible, leading to the conclusion that these inconsistencies are indeed errors, or at least do not derive from the systematic application of some principle of discount or penalty.

In the light of this conclusion, it was possible to avoid the problems that capturing this data on the database - which cannot cope with mathematical inconsistency - would have caused. The final database is designed to contain only two of the three possibilities, y and z, or the amounts bought from each supplier and the the total sum paid each year. These figures are entered into different tables within the database, the transaction and entry tables respectively. The total quantity involved in each entry, stated at the beginning of each account, has not been entered into the database. It was decided that this was probably the least reliable of the three figures, indisputably being a calculated figure (whereas the amounts bought per person and the total paid at least might have been absolutes, and are more likely to be correct); it was also the least useful of the three from the point of view of the questions it was intended to ask of the data, as outlined above. It should be remembered that the differences involved between the various figures are for the most part small, almost always being less than 10%, and so the risk involved in making this necessary decision is only of a margin of error of that size on the particular transactions involved, and thus negligible overall.

Identification of suppliers

The database design problem that arose with named suppliers was the impossibility of telling whether a name appearing in one account signified the same individual as the same or a similar name appearing again either elsewhere in the same account, or in a different account. This was particularly important from the point of view of identifying the location of certain suppliers, since place names in association with suppliers' names appeared only occasionally and the question arose of whether it was legitimate to keep such information linked to a certain name or not, on those occasions when the name appeared without any associated place name being given.

Certain assumptions were clearly going to have to be made if it was going to be possible to use this information most effectively. In deciding what assumptions to make, the main concern was to avoid making decisions which would mean excluding information later found to be significant; any aggregations to be made at the data entry stage would not be susceptible to later reversal or analysis. It was thus desirable to maintain as much information as possible in a discrete form. It was finally decided to assign supplier codes to each transaction, based on the assumption that the same firstname and surname combination appearing in the same year supplying the same commodity was the same person, but to differentiate between the appearance of such combinations in different years. The supplier code was made up of the initial letter of the supplier's first name and the consonants of the second name, plus the final two digits of the year involved. In practice, this meant that if the name John Smith appeared selling cloth in a single year, say 1465/6, more than once, then the supplier code for these transactions would be identical (jsmth65); if the name

appeared again in the following year, the supplier code would be similar but the year number it contained would have altered (jsmth66). It was also decided that an additional field should be created for a standardised version of the surname given in the account, thus enabling alphabetical or other sorting to take place whilst retaining the original variant spellings in case these should later prove important.

This procedure had several advantages. In the first place, it only aggregated information that it was highly unlikely would be susceptible to further analysis at any later stage. In other words, it was considered to be unlikely that further research into the suppliers named into these accounts would have any reliable chance of success in distinguishing between two John Smiths: and if this distinction could not be useful in a later stage of research then it was legitimate to exclude it at this stage. Secondly, the supplier coding system meant that similar names would have similar codes differing only in their numerical element, which would facilitate analysis of these suppliers at a later stage.³⁸⁷ This system was adopted with the intention of further aggregating suppliers when the data entry process was complete. The use of such a two-stage process ensures that any assumptions made at this later stage would be reversible should they prove to be unjustified at a later stage or if further evidence came to light.

At the database design stage, therefore, the following supplier information was captured: first name, surname, occupation and associated placename (both only rarely given in the accounts), whilst two further fields held

³⁸⁷ The only exception to this rule applies where an individual is identified by other indicators additional to their name. In practise, this has meant where an individual is identified with reference to a place, and occasionally a job title - for example, 'John Marshall, draper, of York'. In these cases, it has been considered that the identification is complete enough for the aggregation to the same supplier code to be made at the data entry stage, saving a great deal of

manufactured data: the supplier code, and a standardised version of the surname given. Once initial data-entry was complete it was then necessary to begin the process of linking suppliers who appeared in different years if any meaningful analysis was to be undertaken. There is great deal of literature in existence on the questions of how and with what confidence record linkage can be achieved, but little of direct relevance to this project. Most relates to family history issues and deals with the linking by computer of very large quantities of data (often in excess of 100,000 records) relating to certain individuals which is contained in several different types of records, using specially programmed algorithms.³⁸⁸ After considering the various methodologies outlined in the existing literature, two main decisions were made about how this project should proceed. In the first place it was clear that record linkage in this case would be most efficiently undertaken manually rather than by use of a computer algorithm, both due to the relatively small number of records used here and to avoid the error rate of around 20% erroneous linkage which can be expected when records are computer linked without manual input.³⁸⁹ Secondly, it was decided that the linkage should proceed by aggregating list-unique pieces of data, since these were not susceptible to further analysis on the basis of the available evidence, and by

repetitive data being entered into the database. These individuals are thus coded with the identifying number of the year in which they first appear.

³⁸⁸ See for example D.I.Greenstein, *A Historian's Guide to Computing* (Oxford, 1994), p.94; C.Harvey, E.M.Green and P.Cornfield, 'Record Linkage Theory and Practice: an Experiment in the Application of Multiple Pass Linkage Algorithms', *History and Computing*, 8 (1996), pp.78-89; J.Williamson, 'One Use of the Computer in Historical Studies: Demographic, Social and Economic History from Medieval English Manor Court Rolls', in A.Gilmour-Bryson, ed., *Computer Applications to Medieval Studies* (Studies in Medieval Culture, XVII, 1984), pp.51-61; and the record linkage special edition of *History and Computing*, 4 (1992), especially P.Adman, S.W.Baskerville and K.F.Beedham, 'Computer-Assisted Record Linkage: or How Best to Optimise Links Without Generating Errors', *History and Computing*, 4 (1992), pp.2-15.

³⁸⁹ S.King, 'Historical Demography, Life-Cycle Reconstruction and Family Reconstitution: New Perspectives', *History and Computing*, 8 (1996), pp.62-77; p.67.

coding separately linkages made with various degrees of confidence. The process of record linkage then progressed as described in chapter six of this thesis.³⁹⁰

The design of the database

In the light of the issues raised above, the database began to take shape. Perhaps the most important consideration other than those already discussed was the unusual many-to-many relationship which existed between the suppliers and the account entries: that is to say, not only could a single supplier be responsible for many sales to the priory, but also a single entry in the accounts could involve many suppliers. For information to be retrieved from the database this needed to be broken down into one-to-many relationships, in which a single entry in one table could be related to many in another, but not vice versa. This was solved by the decision to separate the two concepts of an 'entry' (a sentence in the accounts) and a 'transaction' (the individual elements of that entry, broken down as far as possible). Thus an entry containing purchases of a single commodity at a single price from ten different named individuals would be related to ten entries in the transaction table, whilst an entry containing purchases from a single individual at three different prices would be related to three transactions.

A note should also be made here on currency. Entries in the original accounts are made in pounds, shillings and pence, which as they stand cannot be handled by the database, which can only perform mathematical operations on decimal currency. However, converting each cost into decimal prior to data entry would have been ruinously time-consuming. This was solved by entering the three price elements (pounds, shillings and pence) into three separate fields in the

³⁹⁰ See chapter six, pp.271-4.

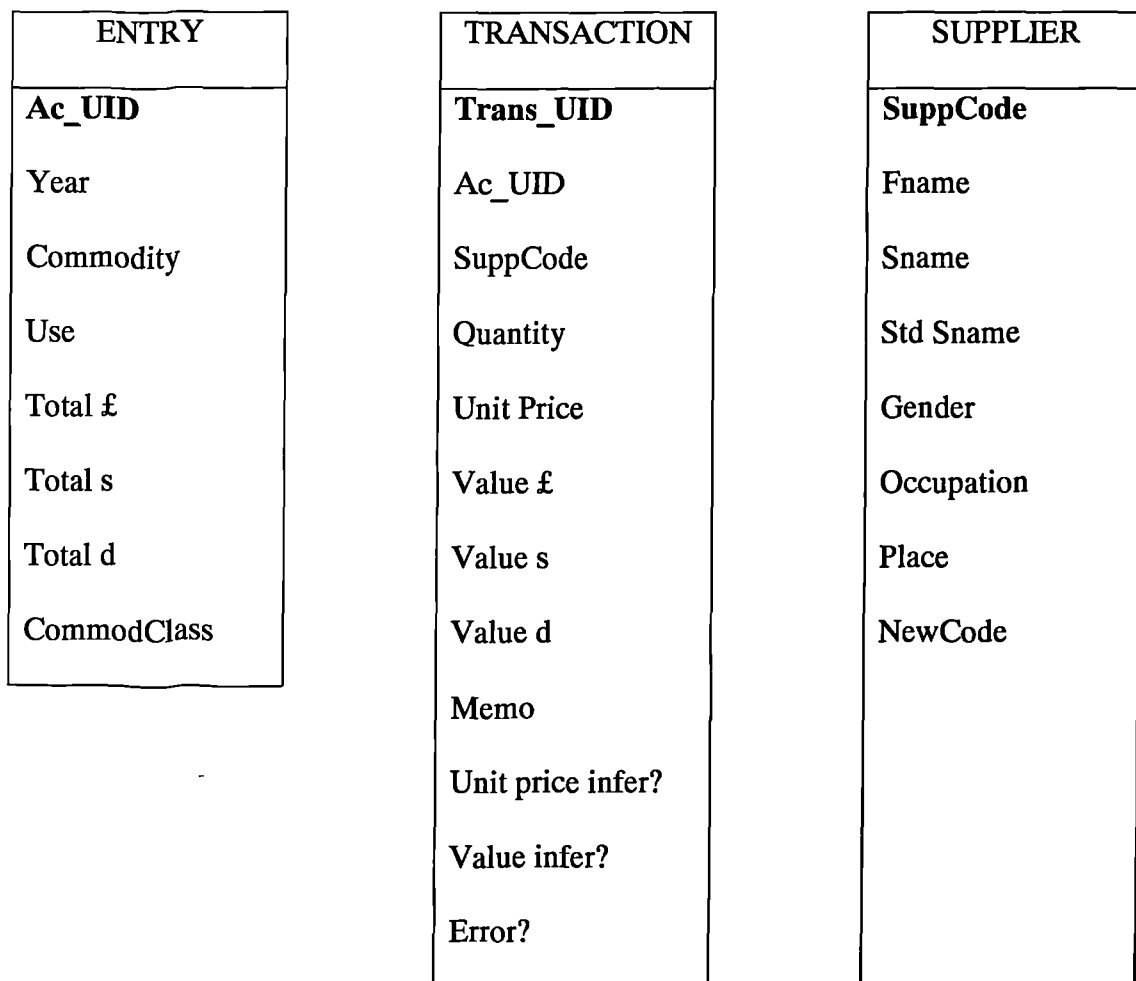
database. These could then be converted into pence by the computer by the use of a simple arithmetical formula at the analysis stage, and any arithmetical operations (such as the calculation of an average cost, total spend and so on) could be performed on the resulting pence totals, the results being eventually translated back into their original format where desirable.

The final database design is shown in the following diagram (fig. 63). Each box constitutes a separate table within the database, and the relationships between these tables are shown by the linking lines (the arrows indicating the direction of the one-to-many relationships). The title of each table is shown in the separate box at the top of each, and the entry in bold type immediately below identifies the field which acts as the primary key to that table - the 'hook' with which the database is able to make connections between the data contained in two different tables.

A brief explanation of some of the fields may be of interest. In the Entry table, the unique identification number (**Ac_UID**) for each entry contains information enabling it to be retraced to its source in the original accounts. For example, the entry with the **Ac_UID** '65bw1' is the first entry in the bursar's wardrobe accounts for 1465/6. The 'year' field, included to allow searches by date, would in this case be 1465, the year in which most of the accounting period fell. The 'commodity' field contains a description of the goods bought, in this case 'prior's livery', whilst the 'use' field captures any information included in the account as to the intended use or destination of the commodity purchased. Entries in this field are relatively rare. The three 'total' fields record the number of pounds, shillings and pence respectively which were spent in that entry, as discussed above. Finally, the 'commodclass' field is an artificial coding field, in

which a letter was entered to allow various commodities to be bundled together at the analysis stage. For example, all the different cloths bought by the priory (described by variety, such as hardyn, linen, and so on in the 'commodity' field) are coded 'c' in the 'commodclass' field to allow overall conclusions about the priory's cloth purchasing to be drawn.

Fig. 63: Entity relationship diagram showing the database design



In the transaction table, the 'trans_UID' is the unique identification number for each transaction, and this was simply allocated in numerical order as

the data was entered. The unique identifying fields of the entries in the entry and supplier tables which relate to each entry are then given, to allow searches to make links between the fields. The 'quantity' field then lists the amount of the commodity bought in each particular transaction, and the 'unit price' is then given followed by the total value of the transaction, again broken down into the units of pounds, shillings and pence to facilitate analysis. The 'memo' field was included so that certain features or peculiarities of the data, which would not otherwise fit into the database structure, would not be lost but could be noted here.

Throughout the creation of this database, the guiding principle was to make assumptions and inferences where it was considered appropriate or useful to do so, but only according to standardised and fully documented rules. The next two fields in the transaction table alert the user of the data to where such inferences have been made. In some of the entries which contain multiple transactions, the unit price and/or the value of each individual transaction are not given in the original account, and these have therefore been inferred from the data that was available. The 'unit price infer?' and 'value infer?' fields thus note whether the values in the 'unit price' and the three 'value' fields respectively are given in the original or have been inferred for the purpose of this database, whilst the 'error?' field was included in the original database design in order to alert the user of the data to the presence of mathematical inconsistencies in the account.³⁹¹

The third table, the supplier details, is perhaps the simplest of the three. The 'suppcode' is the unique identifying number for each record, as discussed above.³⁹² The first name, surname and standardised form of the surname are then

³⁹¹ See above, pp.329-32.

³⁹² See above, pp.332-3.

given in the next three fields. This was followed by the gender of the supplier which was inferred from the first name and/or from the occupation given, and which could thus have one of three values – male, female or unidentifiable. The last two fields were often empty, but where the information was given in the account the occupation of the supplier (such as ‘draper’ or ‘clerk’) was entered into the ‘occ’ field. Where a supplier was described in relation to a place, such as ‘John Marshall of York’, the associated place name was entered into the ‘place’ field. Finally, the ‘newcode’ field was left blank at the data entry stage, but was filled at the analysis stage by a code which aggregated suppliers who were identified or assumed to have been the same individual, as described in Chapter Six.³⁹³

³⁹³ See chapter six, pp.271-4.

Appendix III

Elasticity of demand for individual grain types, 1460-1520

Fig. 65: The prices at which different amounts of wheat were bought by the bursar, 1460-1520.

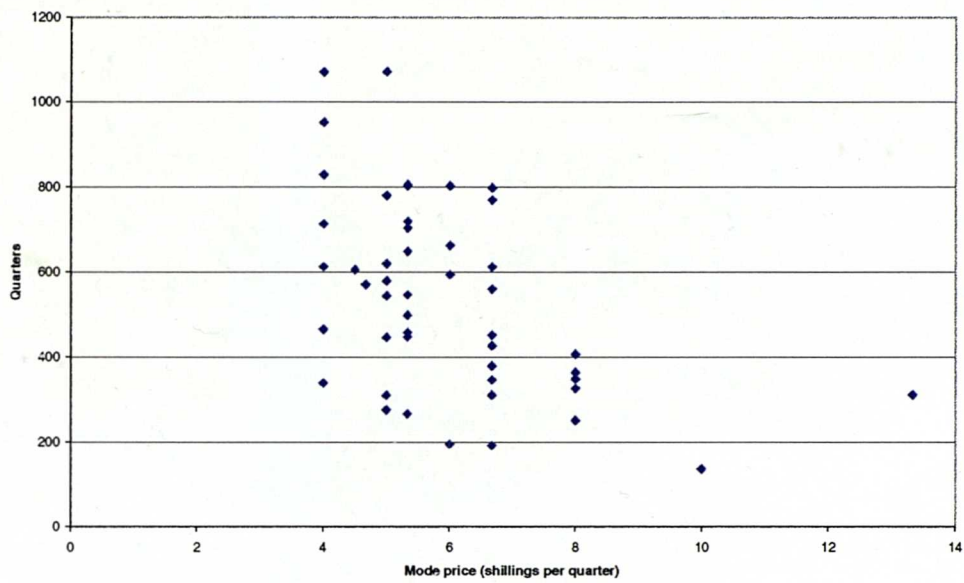


Fig. 66: The prices at which different amounts of barley were bought by the bursar, 1460-1520

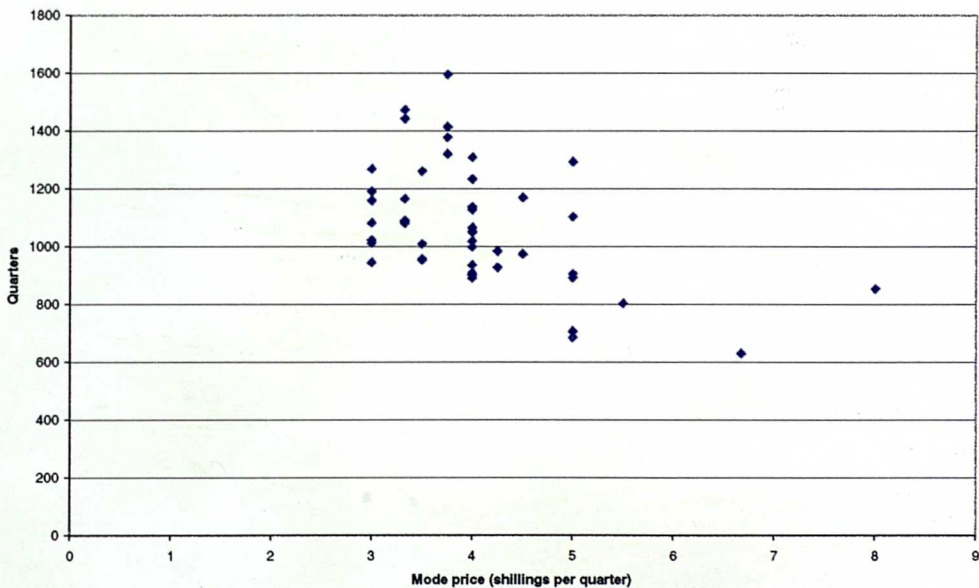


Fig. 67: The prices at which different amounts of oats
were bought by the bursar, 1460-1520

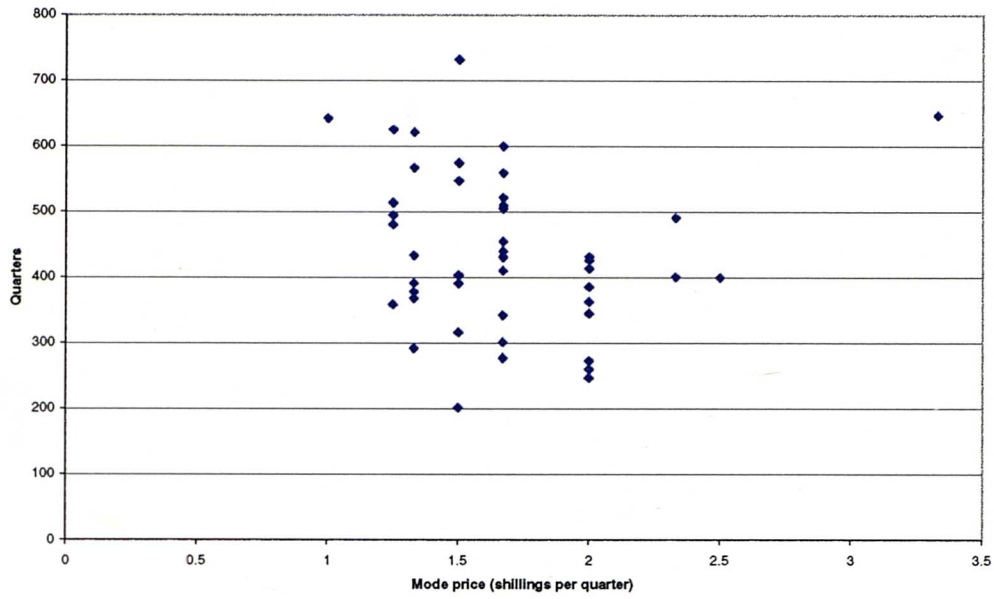
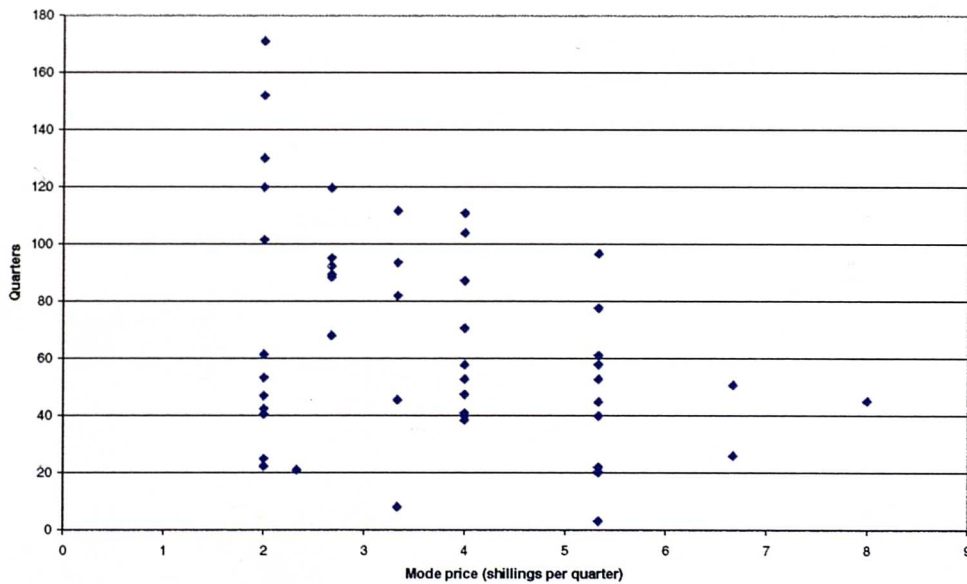


Fig. 68: The prices at which different amounts of peas & beans
were bought by the bursar, 1460-1520



Appendix IV

Details of Edible Weight Calculations

The meat weights per carcass in fig. 69 have been taken from Harvey, subject to the following assumptions and calculations.³⁹⁴ Both pullets and penny hens have been assumed to be equivalent to the 'chickens' found at Westminster, at roughly half the weight of hens, which corresponds to their respective prices in the Durham accounts. Similarly, the 'half-penny geese' at Durham have been equated with the Westminster 'green geese'. Boars do not appear in the Westminster accounts; in the Durham accounts they cost on average 270% as much as a pig. Here the edible weight has been assumed to be 2.5 times that of a pig. Cattle are variously described in the accounts as oxen, cows, steers, and so on, but here an average weight for mature cattle has been taken, with only calves listed separately.

The fish weights which appear in bold type in fig.70 have also been taken from Harvey.³⁹⁵ Dogdraves have been assumed to be cod of average size, and kelyng to be equivalent to stockfish. Fresh and salt eels have been assumed to be of equivalent weight. The remaining fish types (appearing in normal type in the table) do not appear in the Westminster accounts. The calculations of the weights of these fish have been made by calculating them proportionally to known fish types, in an attempt to maintain the comparison between the consumption of the two monasteries. White herring are always given in terms of barrels and red herring in terms of thousands bought in the Durham accounts. The average price for 1000 red herring over this period was 126.2 pence, and for a barrel of white herring 105.8 pence; it has been assumed that these prices represent differences in quantity rather than quality, and that

³⁹⁴ Harvey, *Living and Dying*, pp. 228-30.

³⁹⁵ Harvey, *Living and Dying*, pp. 226-7.

a barrel of white herring was therefore equivalent to 838.4 red herring. Sprats and sparling were small herring-type fish, with sprats the smaller of the two, and it is unsurprising that these do not appear in the Westminster accounts as they appear to have been a Northern delicacy.³⁹⁶ On the same principle as that used for red and white herring, the weight of a sparling has been calculated to have been 0.372 that of a herring, and the weight of a sprat 0.254 times that of a herring. A cade of sprats was bought on one occasion, costing 1s.8d., and its weight has thus been assumed to have been equivalent to 158.5 herring. Eels were often bought individually, but also in two obscure measures, the 'gagge' and the 'aughtendell'. The equivalent weights of these measures, and of the lampreys bought by the priory, have again been calculated using the proportional prices method outlined above.

Finally, it should be noted that the table of the fish bought by the priory (fig.70) does not include cockles and mussels, sturgeon bought individually or fresh fish such as plaice, roach, perch and tench, since the quantities bought of these fish types are not given in the accounts. In addition, some of the fish for which quantities are given and which have thus been included in the table (salmon, sturgeon and seals or dolphins) do not have weights given since equivalent fish-type weights are not listed in the Westminster accounts. Rather than calculate weights on an individual basis (which would result in the weights for these commodities being incommensurate with those for the other fish-types listed here) these have been omitted from the calculation of the total weight of fish bought in each year, and these totals are thus slightly lower than the actual totals would have been.

³⁹⁶ M.Aston, ed., *Medieval Fish, Fisheries and Fishponds in England* (British Archaeological Reports, British Ser., 182, 1988), p.73.

Fig. 69: The Edible weight of meat purchased by the cellarer, 1465-1515

Commodity	Edible weight per carcass (kg)	1465/6		1474/5		1485/6		1495/6		1504/5		1515/6	
		Number	Weight	Number	Weight	Number	Weight	Number	Weight	Number	Weight	Number	Weight
Pullets	0.436	37	16.132										
Capons	2.324	147	341.628	127	295.148	309	718.116	297	690.228	61	26.596	409	178.324
Geese	1.998	134	267.732	258	515.484	219	437.562	352	703.296	262	608.888	182	422.968
½d. Geese	0.499	22	10.978	12	5.988					307	613.386	299	597.402
Hens	1.162	349	405.538	357	414.834	503	584.486	542	629.804	587	682.094	681	791.322
1d. Hens	0.436	107	46.652	98	42.728								
Boars	57.205			2	114.41	3	171.615	3	171.615	4	228.82	3	171.615
Pigs	22.882	47	1075.45	37	846.634	37	846.634	31	709.342	32	732.224	48	1098.34
Piglets	5.72	213	1218.36	359	2053.48	344	1967.68	589	3369.08	653	3735.16	553	3163.16
Cattle	109.069	228	24867.7	175	19087.1	243	26503.8	291	31739.1	259	28248.9	240	26176.6
Calves	17.07	26	443.82	28	477.96	33	563.31	43	734.01	29	495.03	16	273.12
Sheep	10.978	520	5708.56	584	6411.15	520	5708.56	693	7607.75	783	8595.77	928	10187.6
Lambs	4.072	72	293.184	175	712.641	140	570.08	149	606.728	315	1282.68	271	1103.51
Total meat per year:			34695.8		30977.5		38071.8		46960.9		45249.5		44163.9

Fig. 70: The Edible weight of fish purchased by the cellarer, 1465-1515

Commodity	Edible weight per unit (kg)	1465/6		1474/5		1485/6		1495/6		1504/5		1515/6	
		Number	Weight	Number	Weight	Number	Weight	Number	Weight	Number	Weight	Number	Weight
Cod family:													
Dogdraves	1.979	1637	3239.6	2327	4605.1	2163	1280.6	2136	4227.1	2755	5452.1	2751	5444.2
Ling	1.979							20	39.58	124	245.4		
Stockfish	1.317	38	47.4	120	158.0	100	131.7	214	281.8	230	302.9	720	948.2
Kelyng	1.317			420	553.1								
Herring:													
White (barrels)	106.48	11	1171.3	23.5	2502.3	17	1810.2	23	2449.0	30.98	3298.8	33	3513.8
Red (1000s)	127	23	2921	57	7239	43.9	5575.3	50	6350	30.5	3873.5	18	2286
Sprats (1000s)	32.26												
Sprats (cades)	20.07			2	40.1								
Sparling	47.24	1900	89756	2600	122824								
Salmon:													
Salt (barrels)		7		14.5		15		15		10		8	
Salt (each)		21				48		456				158	
Fresh		33		34		55		45		8		13	
Unspecified										264			
Eels:													
'gagge' of eels	3.675												
'aughtendell' of eels	5.88	3	17.6	5	29.4	4	23.5	7	41.2	7	41.2	7	25.7
Salt	0.245	12	2.9										
Fresh	0.245	48	11.8	36	8.8								
Lampreys	0.00882	144	1.3	144	1.3	168	1.5						
Other fish:													
Mudfish										124			
Pike	0.826	3	2.5	3	2.5	4	3.3						
Seals/dolphins		2		4		8.5		10.5		10		5	
Sturgeon (barrels)		1				1.5						0.5	
Total fish per year:			97171		137411		11826		13389		13214		12250

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The relevant obedientiary accounts are shown in Appendix II, p.340.

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