

# BIRTH, MARRIAGE AND DEATH IN ELIZABETHAN CUMBRIA

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This article is an attempt to summarize for general readers several years of part-time amateur research into the social history of the Cumbrian parish of Greystoke. In it I shall concentrate on the reign of Elizabeth I and the early Stuarts (i.e. on the years 1560-1630) and on aspects of birth, marriage and death in the parish. Many of these aspects throw light on community health, using that term in a fairly broad and elastic sense.

My interest in Greystoke arose as an accidental offshoot of constructing a family tree as a present to my children. In doing so I succeeded in showing that one branch of my wife's family was resident there at least as far back as 1560. Continuous local records do not exist for times before that so in lieu of further genealogy I decided to investigate in as much detail as I could the 'lifestyle' of the community from 1560 until my wife's ancestors moved elsewhere.

I began by reading the standard histories of the County of Cumberland in which Greystoke lies (and which now forms part of the new county of Cumbria). This proved easy because the remoteness of the region has led to its relative neglect by historians. But it also proved a disappointment because these works were vague and unspecific about the period of my interests. They had much to say about Roman and Norman times and about the late eighteenth and early nineteenth centuries when the Lake District became celebrated for its romantic scenery, but the 'early modern' period received scant reference. The only major exception was **The Economic History of the Lake Counties** by Bouch and Jones; but as the title indicates it is not primarily a work of social history.

So, first of all, I need to provide some geographical background and to sketch a general picture of the kind of society existing at Greystoke.

It is appropriate to begin by pointing out that the parish is huge – it covers about sixty-five square miles, making it one of the very largest in England. Its centre lies about ten miles west of the town of Penrith and the Eden Valley. The Lake District National Park boundary runs through its middle and it is bounded on the south by Lake Ullswater, on the west by the Skiddaw and Helvellyn mountain ranges and on the north by a large chase called the Forest of Inglewood. Within it there are over a dozen hamlets including Murray, Berrier, Hutton Roof, Johnby, Little Blencow, Motherby, Penruddock, Hutton John and further south Watermillock, Matterdale and Dowthwaitehead. Each of

these is a small collection of farms plus, at the time I am speaking of, a few cottages occupied by wage labourers and by tradespeople such as millers, arrow makers, weavers and shoemakers. There is only one proper village which is Greystoke itself with the parish church of St Andrew. The parish includes several outliers of the Lake District fells that reach about 1,000 feet and the different hamlets are connected by trackways which wander through this hilly terrain. The weather is characteristic of the Lake District and many readers will know that that means wet and cold. One inhabitant of Berrier said dourly that in his hamlet it was winter for nine months of the year and pouring down for the remaining three. I can vouch for the accuracy of that because I have been trying to photograph the place for years and every time I go there it is either blowing a gale or raining.

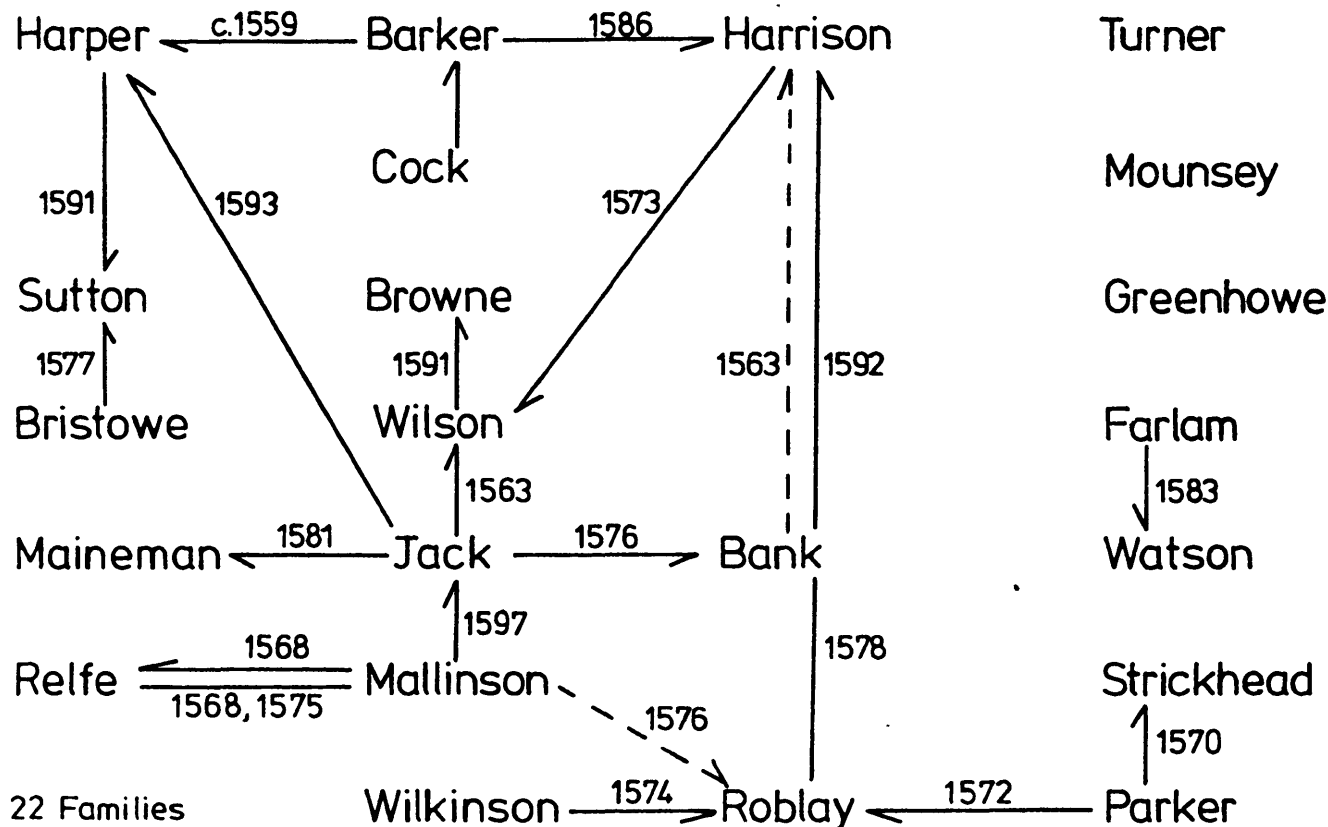
As a result of the weather the farming was largely pastoral: oats and barley were grown but for home use only and grain imports were often necessary (and expensive). Mostly the farmers grazed sheep on the surrounding fells and some kept a few cattle which were pastured on the lower fells in the summer and kept in byres when the weather deteriorated.

As to housing conditions, some guesswork is needed. The early farms that survive today all date from a great wave of rebuilding in the mid- to late seventeenth century, which produced the attractive vernacular structures tourists so admire. Before the rebuilding, the houses were probably slighter in build, smaller, unglazed and thatched rather than slated.

So much for the physical and economic background. What about written records? The parish register of baptisms, burials and marriages is the most important source of information. Where timing is concerned it is important to remember that what is being recorded is baptisms and burials rather than births and deaths, but there is internal evidence in the register that the baptisms (and the burials) did not lag significantly behind the biological events that preceded them. The Greystoke register is, fortunately, an excellent one and probably Cumberland's best. It has a few gaps which pose difficulties for family reconstitution analysis; they are not due to careless registers but to the tearing out of an occasional page by some vandal in the past. Some very valuable features of the register are that individuals being buried are usually identified as child or adult, that men's occupations are often given (so they might be classed, for example, as a weaver, a bailiff or a husbandman), and finally and perhaps most importantly, the hamlet of residence is given for almost every individual. This is crucial for the success of family reconstitution analysis because, naturally enough, the same surname can crop up in two or more different hamlets, leading to possible confusions.

What can the analysis of the register tell us? In fact, it can tell us much about my main theme of 'health' but it can also enlighten us about much else, and before I turn to health I should like first to discuss what can be deduced about marriages. One result of marriages is that they establish social networks by linking different families together and Figure 1 (overleaf) illustrates that aspect of marriage as it affected the hamlet of Berrier where between 1560 and 1599 seventy-one inhabitants became married. Thirty-six of these chose a bride or

Figure 1 Berrier - Marital interconnections 1559-1599



groom who was also from Berrier and most of the rest looked no further than another hamlet in Greystoke. In all, 34 per cent of marriages were 'internal' (in the sense that both partners came from Berrier) which is rather remarkable because this is a place that had no more than 115 people in it, counting adults and children together. That kind of near-incestuous process necessarily wove a rather tangled web, and as Figure 1 shows, only 3 of the 22 families resident in the late sixteenth century failed to become maritally interconnected with at least one other family, and some families became linked with several others. The broken lines in Figure 1 records those illicit unions known to us because they generated one or more bastards.

One can, of course, do more – for example, the marriage dates of individuals can be linked with their christening dates. This is tedious to accomplish but possible in many cases and it tells us the age at which people married. For men the parish average was 26 years and 7 months and for women 23 years and 3 months. Out of 112 individuals there were only 4 (girls) who were under 16. This confirms the 'Cambridge' scenario of relatively late marriage and in fact the average marital ages are almost precisely the same as those that Laslett has published for brides and grooms in the diocese of Canterbury.<sup>1</sup> As regards the customary age at marriage, the remote highland community of Greystoke was

clearly in no way exceptional. Incidentally the values today would be exactly two years higher, both for men and women.

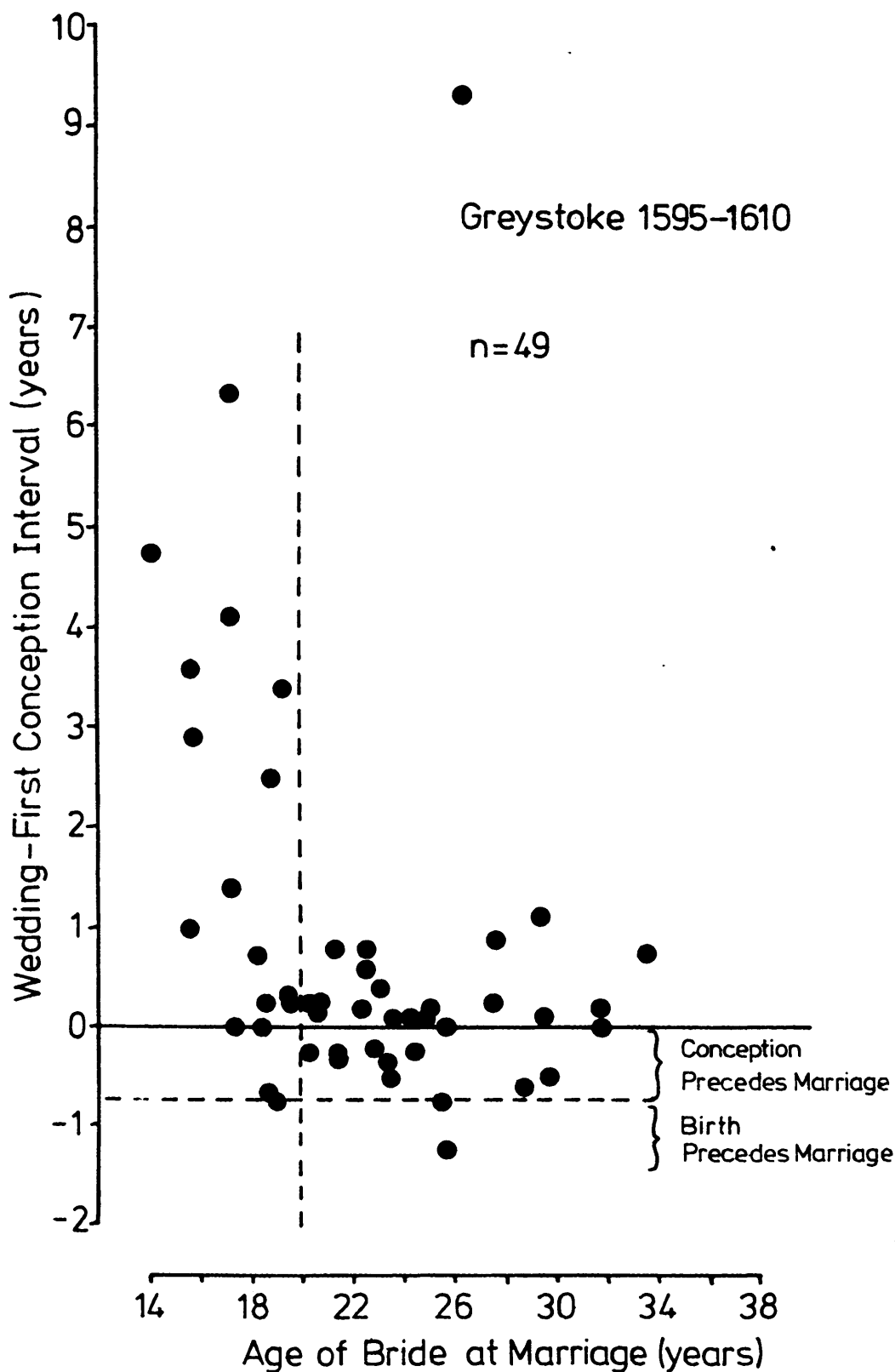
Marriages of course lead frequently to births, and baptismal entries can also tell us much, and one of the things they show is that the birth rate fluctuated markedly during the year. Throughout the period 1560-1625 it peaked markedly in March and again in October, these high spots being separated by one trough in early summer and another in December. Allowing nine months for gestation this gives us a seasonality for conceptions, and we find a marked trough in September-October which may well mark a fall in sexual enthusiasm during the heavy work of the harvest, which is late in the Lakes. The slighter trough in conceptions during March indicates that some people, though not perhaps very many, heeded the admonitions of the Church and were continent during Lent. Conversely, the two peaks would seem to signal a degree of early summer friskiness followed by a celebration of the long winter nights which was most enthusiastic during the Christmas period.

More seriously, we can link the date for each marriage with that for the baptism of the first child resulting from it. This provides a wedding to first christening interval and by deducting nine months we arrive at a wedding to conception delay. And here is a real surprise. Negative intervals imply a pregnant bride and out of a sample of 93 brides in the period 1595-1610 no fewer than 36 (39 per cent) were pregnant, often heavily so. That is, I think, much the highest figure yet found for England at this time and interestingly enough the other high values that do exist are also for the north-west. So what we may be seeing is a sign of the persistence, in a culturally primitive region, of the medieval custom of handfast or contractual marriage, in which people promised to get married, behaved as if they were married, and ratified the business at church only when the bride was pregnant.

If handfast marriage was common, then men being what they are, one might expect quite a few prospective grooms to renege, which would lead to a high rate of bastardy. And in fact that prediction is borne out. The rate was something over 6 per cent whereas most of the other few sixteenth-century communities which have been studied have yielded values around 3 per cent.

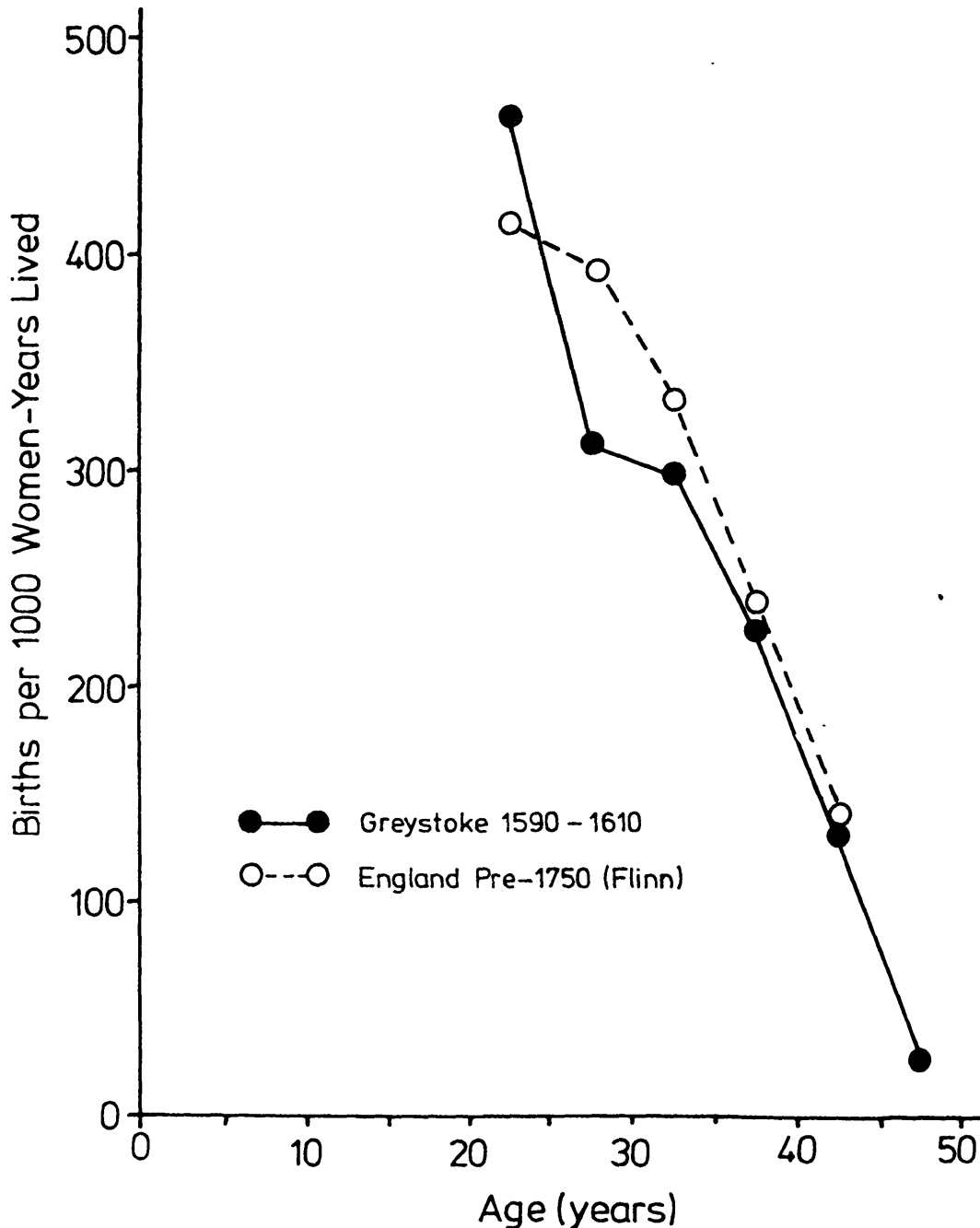
The matter of weddings and conceptions can be taken further and here we reach my main topic of health. The wedding/conception interval can be plotted against the age of the bride at marriage to provide Figure 2, which is of considerable medical interest. Firstly, it confirms what we have already seen, that a substantial number of brides were pregnant. It also shows, however, that few teenage brides were pregnant when they married and also that around half of these did not become pregnant until over a year after their wedding. This is, I believe, the best evidence available up to now for England for what demographers call teenage subfecundity or adolescent sterility, which is a common enough phenomenon in developing countries today. Sexually mature but undernourished young brides simply don't become pregnant easily. The presence of the phenomenon in Greystoke probably indicates that the general level of nutrition was rather poor. But it doesn't necessarily imply that this was an exceptional community. Nutrition was probably bad over the whole country,

Figure 2 Greystoke 1595-1610: wedding/conception intervals



and there are grounds for believing so, because the overall level of human fertility at Greystoke was little different to what it was elsewhere in England.

Figure 3 Age-specific marital fertility



How do I know this? A first clue is provided by the annual number of live births. Among the central hamlets, which collectively comprised around 980 people, there were an average of 32 infants baptised per year in the 1580s, which corresponds to a crude birth rate of 33 per thousand per annum. Birth rates have not been widely measured for other places in sixteenth-century England but the overall average for the lowland zone is a very similar 34 per thousand.

However, there are dangers to using crude birthrate to infer things about the fertility of particular communities because it takes no account of possible differences in the population age structure. This difficulty can, however, be circumvented by using family reconstitution to obtain a more subtle index

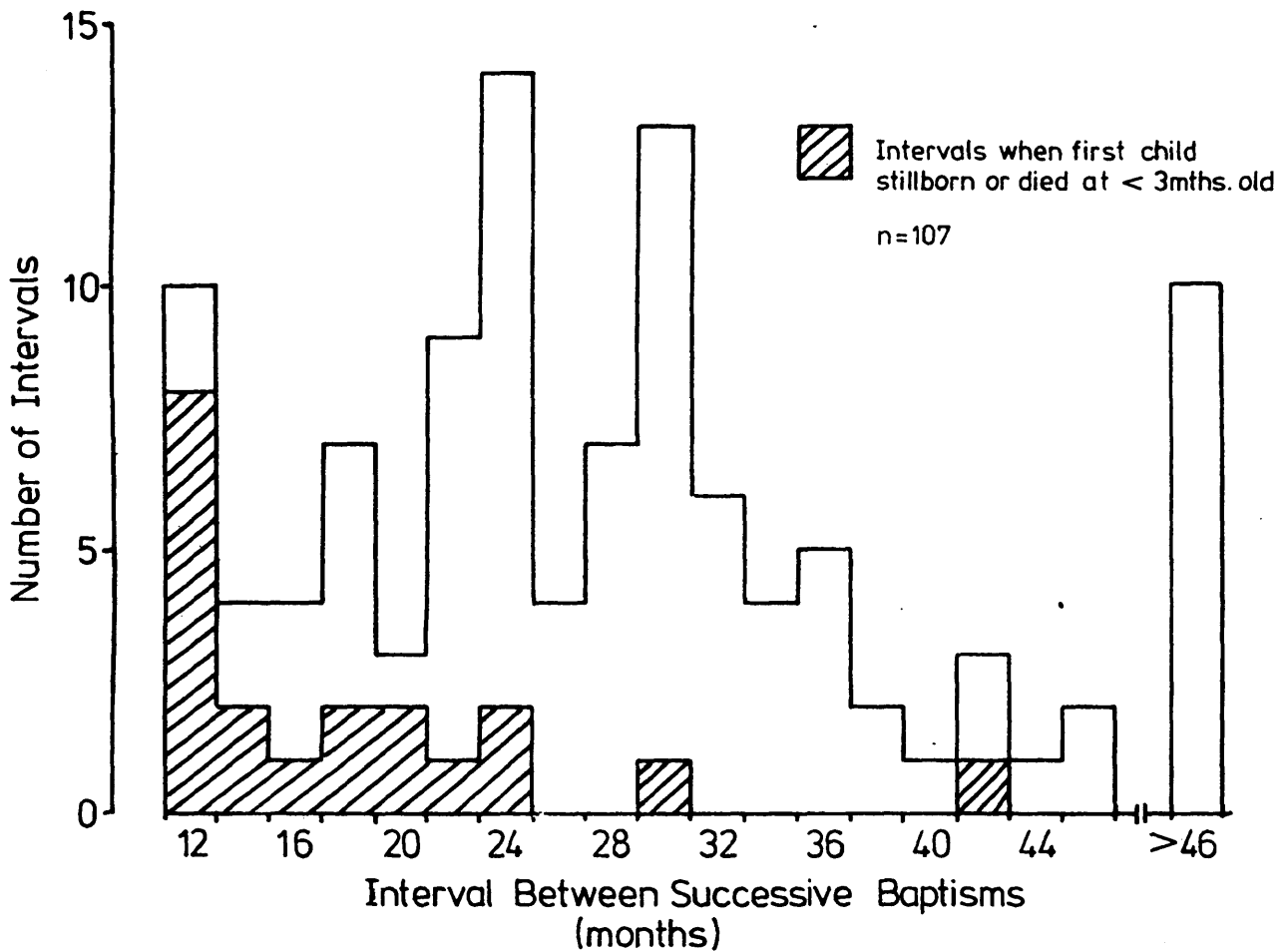
which is called the age specific marital fertility. This is enormously tedious to derive but ultimately worth the effort. It is the number of children born per thousand women-years lived, for women in different five-year age groups and it is usually calculated for the ages 20-4, 25-9 and so on up to 49. In Figure 3 the filled circles show the values for women at Greystoke marrying between 1590 and 1610, and two things are evident. Firstly, fertility declines very rapidly with age and secondly, even at their most fertile, the women were producing on average less than one child every two years (because one a year would yield an index of a thousand). These features are not unusual – the broken lines show a similar curve calculated by Flinn by aggregating 14 different pre-1850 English communities. We can conclude, therefore, that the low fertility previously found in more southerly communities is characteristic also of Greystoke.

Without going into details, it has been possible in addition to show that, because of the low fertility, the number of children born per marriage averaged only 5 (range 0-10) for marriages that were 'completed' in the sense that both partners survived until the wife's menopause. This raises a question as to whether deliberate contraception was practised within marriage, but that is a burning question among social historians and I would not dare to comment.

However, one piece of evidence has emerged which provided an alternative or additional explanation for the low reproductive rate. This evidence emerges from Figure 4 which plots the number of months elapsing between successive sibling births for a large number of such births. The scatter is, not surprisingly, rather wide but something around 28 months would be the average. However, the important point is made by the distribution of the hatched areas, which represent birth intervals when the first child in the pair died either at birth or shortly afterwards. It is noteworthy that most of the short intervals in the overall distribution are made up of such cases. There are at least two possible explanations for that association. Firstly, the loss of a child may have led to a perfectly natural decision to replace it as soon as possible. This would be, if you like, a psychological explanation. But alternatively, when the first child lived, lactation may have suppressed ovulation and acted as a natural contraceptive. As it happens, I prefer the second explanation, partly, I suppose, because it is a physiological one but also because one has to take into account that wives deciding to have a child would have to balance the desire for maternity against the risk they would run during childbirth.

At Greystoke that risk was quite horrendous and must have been perceived as such at the time. At Berrier, for example, of the adult women dying between 1560 and 1600, one in seven died within a month of giving birth. At Greystoke as a whole, 30 per cent of marriages were cut short by the early death of one or other partner and in half those cases the wife died either during or shortly after childbirth. These facts suggest a level of maternal mortality distinctly higher than in most of the lowland communities that have been studied. The presumption must be that the midwives were dirty or inept (or both), which is not unlikely because they would not be formed into any professional guild such as sometimes existed among urban midwives.

Figure 4 Berrier 1560-1600

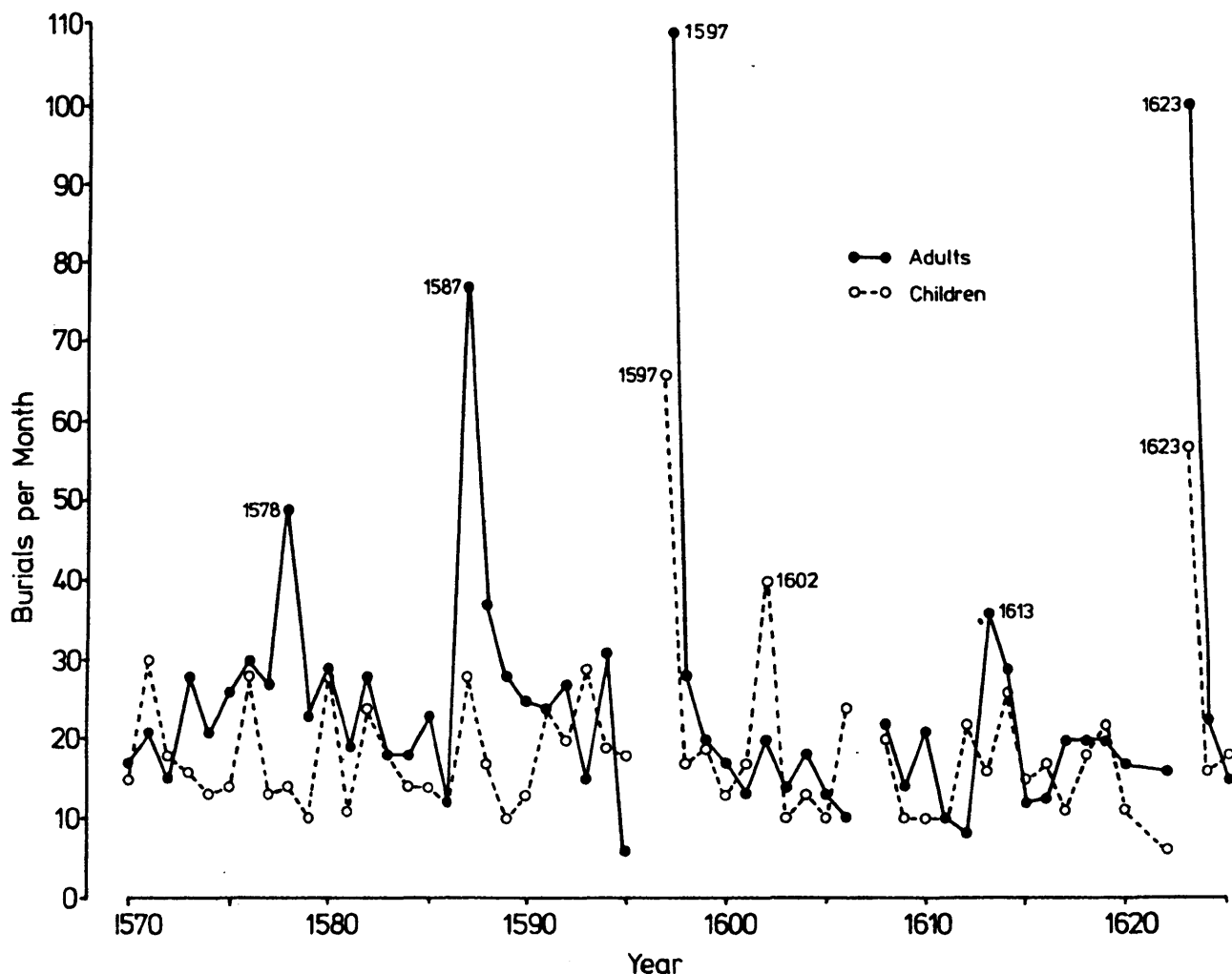


Childbirth risks were not of course confined to the mother. The Greystoke register is exceptional in recording stillbirths for certain hamlets and the rate was a staggering 9 per cent (the only other sixteenth-century estimate I know of is for a London parish where the value was 6 per cent).<sup>2</sup> But even if a child survived birth its next few years were very hazardous; about 18 per cent of live-born infants died in the first year; and in years 1-5 a further 13 per cent died. The sad implication of these values is that starting with 100 full-term pregnancies there would be only 63 children who survived to the age of 5. By resorting to model life tables – a somewhat uncertain business – it is possible to make a ‘guesstimate’ that the life expectancy at birth was at most 40 years and probably 2 or 3 years less.

This brings me to my final (and equally gloomy) topic: death and its causes. Taking those hamlets closest to the parish church (because corpses are heavy and peripheral hamlets buried some of their dead outside the parish), the number of burials averaged 29.5 per thousand per annum in the period 1560-1600 (as compared with 12 today). However, there were substantial fluctuations above the average, and the period included two major crises of mortality – one in 1587 and a second in 1597. Nobody who lived through those bad years was likely to forget them, because the first killed 1 in 12 and the second 1 in 8 of the population. Moreover, after 1600 the community was not out of the woods



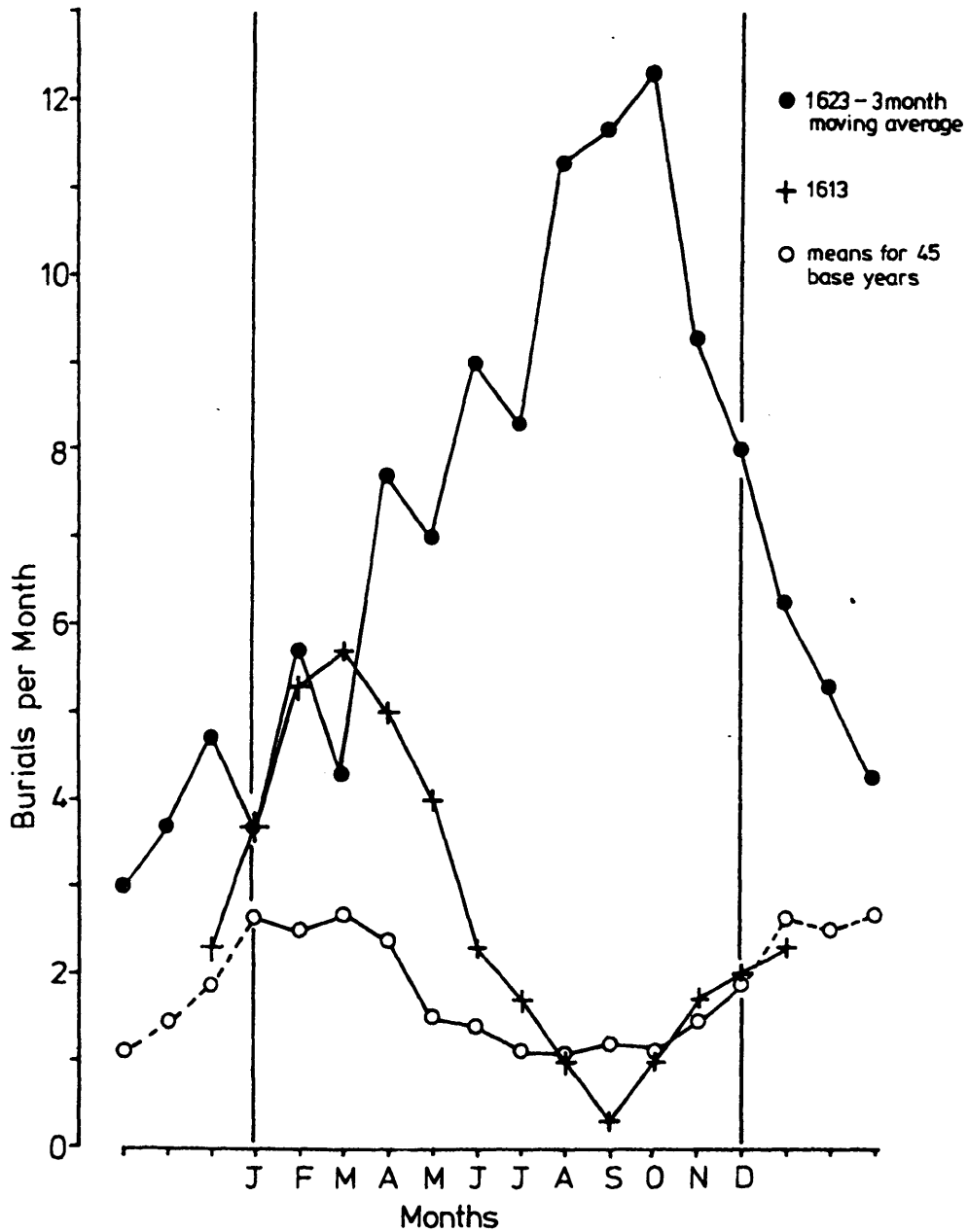
Figure 5 Burials in whole Greystoke area 1570-1625



because there was a third crisis in 1623. Such events were common enough up and down the country and it is sometimes known that an outbreak of plague was responsible. All too often, however, there is no concrete evidence as to the cause and one can only speculate.

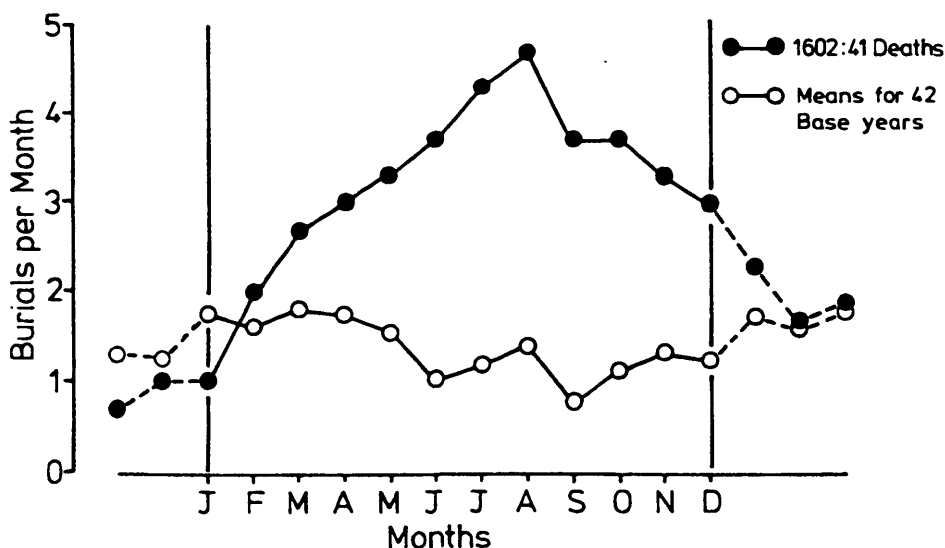
But in 1623 the Greystoke register is quite exceptional for England because the cause of death is usually given. The usual formula is that the person died 'for very want of means to live'. In other words there was a famine or subsistence crisis; and in fact that is what attracted Laslett's attention to Greystoke in *The world we have lost* – the register provides the best evidence for an outright famine in seventeenth-century England.<sup>3</sup> As regards the two earlier crises, they also have attracted attention and a San Diego historian, the late Dr Andrew Appleby, studied them in considerable detail and showed that they were not restricted to Greystoke but that mortality was very high throughout the north-west of England. He showed also that they coincided with years of very bad harvest and his conclusion was that in 1597, as in 1623, the deaths were due solely to famine. However, for 1587 he noted that most of the burials were of adults rather than children, which might be indicative of famine complicated by an outbreak of typhus, which is often an adult-specific disease.<sup>4</sup>

Figure 6 Adult mortality crises 1613 and 1623

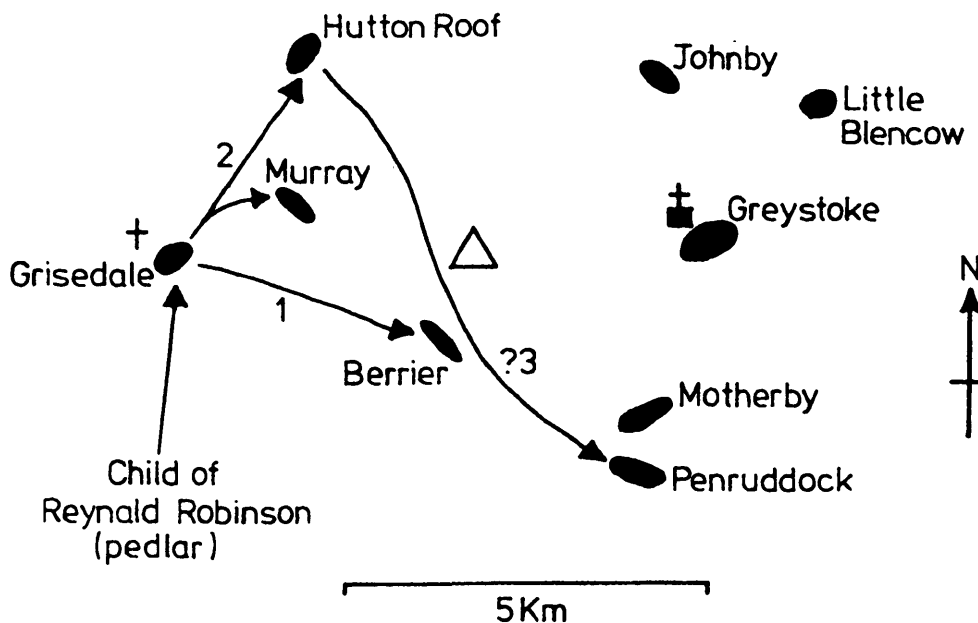


Appleby's work prompted me to plot child deaths and adult deaths separately from 1570-1625 to produce Figure 5. This confirms indeed that the second and third crises killed both children and adults and it also confirms Appleby's statement that adults suffered much more than children in 1587. However, Figure 5 also shows in addition that there was a minor peak in adult deaths in 1578 and another in 1613. These were not years of outstandingly bad harvest and it therefore seems possible that they signal the outbreaks of some adult-specific disease. In that case it seemed worthwhile to determine which months showed the highest burial rate, because a number of diseases show a marked seasonality; plague is the classic example: it usually kills most savagely in high summer. I therefore determined the seasonality of burials during the crisis years and during 'normal' or baseline years. The baseline years are represented by

Figure 7 Child mortality crisis 1602



### Hypothetical Epidemic



open circles in Figure 6 and it is clear that the death rate was highest in the first four months of the year. That is typical for northern Europe, both then and today, because of the winter prevalence of respiratory diseases. However, as the filled circles show, things were very different in 1623 when the register gives direct evidence of a famine: mortality was high throughout the year but rose to an enormous peak in October. In fact, the other two probable famine years of 1587 and 1597 yielded essentially similar plots; but the minor crises of 1578 and 1613 were different again.

The curve for 1613 is shown by crosses in Figure 6 and what happened then (and in 1578) was that the mortality increase was restricted to the period of winter and early spring. Further study has revealed that in these two minor

crises the deaths were largely localised to only two or three hamlets whereas in the famine years they were widespread throughout the whole parish. My conclusions, therefore, are that in this rural area the most important agents of adult mortality crisis were the famines studied by Appleby plus occasional outbreaks of winter disease. The latter might be typhus which is spread by lice, or epidemic pneumonia or perhaps even influenza. Plague, however, was not important and this represents a marked difference from the situation in urban centres, where mortality crises tended to result from that or other summer diseases.

Finally, we can go back to Figure 5 and note the fact that the annual rate of child burials is markedly unstable. There are small elevations every few years and in 1602 there is a notably child-specific increase in mortality. It seems possible that the small elevations represent outbreaks of childhood diseases and for 1602 such an outbreak seems highly probable. I have, therefore, again compared that year with years when the rate was not elevated and the result is shown in the upper part of Figure 7. In normal years the picture is much like that for adults with the addition of a slight elevation in high summer. But during 1602 the death rate (three-month moving average) was high from March through to the end of the year, reaching its peak in August. Moreover, apart from 1602 and excluding the famine years, four of the six worst years for children had similar peaks in high summer.

My conclusion is that infants and children faced the same life-threatening hazards as adults but that, in addition, they were liable to succumb to epidemics of summer diseases, which might be smallpox, dysentery, scarlet fever, or just possibly plague, all of which tend to hit children especially hard. This conclusion receives support from the fact that in all the years of elevated child mortality (except for famine years) the deaths were geographically localised. This is particularly evident for the 1602 crisis when child deaths were largely in four hamlets, where it is possible to estimate that around 1 in 12 of the children died. A tentative geography for this particular epidemic is shown in the lower half of Figure 7 where, by taking burial dates into account, I have attempted to trace the spread of the disease (which was confined to the north-west corner of the parish). The outbreak appears to have begun in Grisedale, where the first child to die was a son of Ronald Robinson, a pedlar who had recently moved into the area and was thereafter resident for some years. Though conclusive proof is inevitably lacking it is likely that his family imported the disease. Thereafter, there were ten more deaths in Grisedale between March and September. There was apparently a spread from there to Berrier (three deaths in April-June) and in a second wave to Hutton Roof and Murray (nine deaths in August-December). The epidemic probably terminated with a tail-end outbreak in Penruddock where there were four more deaths in November-December.

It is necessary, of course, to take the above reconstruction as 'probable' rather than proven, but what I hope it may serve to show is that health historians of the early modern period may be able, by analysis of other parish registers, to arrive at a surprisingly detailed understanding of the spread and impact of infectious diseases, not just in urban centres (which have already received some

attention) but also in the scattered hamlets and villages of the highland zone.

In conclusion, it is abundantly clear that even in the relatively healthy environment provided by a thinly settled area on the Lake District fringe (an area where, if nothing else, the water supplies are likely to have been of excellent quality), life was exceedingly precarious in Elizabethan and early Stuart times. Childbirth in particular was hazardous for both mother and child to a degree which it is difficult now to comprehend, and for those babies who survived the experience the next few years were chancy to say the least. The north-west may have been atypical in suffering such devastating famines but in regard to epidemic diseases it is likely that the inhabitants were more fortunate than those who lived in less marginal, more urbanised areas. Depressing as it may be to contemplate, it seems unlikely that rates of premature mortality were significantly lower anywhere else in the England of the time.

#### NOTES

1. P. Laslett, *The world we have lost: further explored*, (London, 1983), 82.
2. The ratio of still-births in the Lakeland parish of Hawkshead was between 4 and 6 per cent in the mid-seventeenth century. R. Schofield, 'Perinatal mortality in Hawkshead, Lancashire, 1581-1710', *Local Population Studies*, 4 (1970), 13.
3. Laslett, *The world we have lost*, 130-2, 144-6.
4. A.B. Appleby, 'Disease or famine? Mortality in Cumberland and Westmorland', *Economic History Review*, 2nd ser., 26 (1973), 403-32.