PLAGUE MORTALITY IN BUCKINGHAMSHIRE DURING THE SEVENTEENTH CENTURY

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Plague can be said to have been endemic in this country during the seventeenth century. Its outbreaks were sudden and tended to be localised or enzootic although they may have developed later into more generalised or epizootic attacks. Both Creighton and Shrewsbury[1] in their epic works cite years when plague was present in the country: 1603-4, 1609-10, then dormant until 1623-24; recurring devastatingly and finally in its epizootic form in the 1660s. Sydenham lists the outbreaks of 1661-66 and also cites concurrent diseases like smallpox. The plague also seemed to have lain dormant during the Civil War and Interregnum periods. when it was superseded by fevers of a catarrhal or typhus type. In spite of Dr. R. S. Robert's [2] doubts about Creighton's reliability in diagnosing diseases accurately or in assessing their impact, and in spite of C. Morris's[3] strictures concerning Shrewsbury, Buckinghamshire seems to fit the general pattern that they indicated with reasonable accuracy. After the 1660s the disease ceased to appear in western and central Europe with the exception of very short localised outbreaks.

Plague which had ravaged Europe for three centuries on an inegalitarian basis[4] appeared to be most devastating amongst the most destitute sections of the population. The poorer classes seemed to accept this inevitability and called the plague 'the beggars' disease', "the poor's plague" or *miseriae morbus.*[5] The plague bacillus *pastuerella pestis* is normally found in rats of both the brown "rattus norvegicus", and the black *rattus rattus* variety. The non-motile bacillus is diffused by a vector, the rat flea, *xenophylla cheopis,* especially that of the black rat which has more opportunities of human contact than the brown rat flea. Plague-affected rats suffer from acute bacteraemia so that when the bacilli in their bloodstream are ingested by the fleas and form a culture in the latter's oesophagi making swallowing difficult, the rat dies and the flea gets very hungry and bites any animal with which it comes into contact, consequently regurgitating the infectious bacilli into the victim's bloodstream. (This can also be effected by contact with the faeces of the flea). There is no need of rodent movement to spread the more common bubonic plague because infectious fleas and often rats can travel in grain, clothing and other bulky merchandise. A flea carrying the bacillus can survive as long as fifty days without food.[6] Because of this, many Buckinghamshire towns could scarcely avoid the plague, since they were on the main thoroughfares north and west from London and only a couple of days ride away.

The living conditions of the mass of the population encouraged frequent pestilential outbreaks; but although most people could recognise and distinguish between

1.C. Creighton *A History of Epidemics 1603-66* 1st. ed. 1986. J. F. D. Shrewsbury *A History of Bubonic Plague in the British Isles,* 1970.
2.R. S. Roberts "Epidemics and Social History" *Medical History* XII 1968 and "The Place of the Plague in English History" in *Proceedings of the Royal Society of Medicine,* Vol. 59 pt. ii, pp. 101-5, 1966.
3.C. Morris review comment *Historical Journal* XIV 1971 (1) p. 213.
4.C. Cipolla *Christophano and the Plague* p. 108.
5.W. J. Simpson *A Treatise on Plague* p. 91.; Cipolla & Zenetti *Differential Mortality.*
6.R. Pollizer and others *Plague - A Manual for Medical and Public Health Workers* (Shangai) 1936 p. 269. L. F. Hirst *The Conquest of Plague, A Study of Epidemiology* (Oxford) 1963.

the various epidemics to which they fell victim, neither they nor many medical personnel had much idea of their causes and diffusion.[7] In consequence there were only spasmodic attempts to control the nature and spread of epidemics by the prohibition of fairs and assemblies and the creation of pesthouses in response to specific outbreaks.[8]

In 1603, plague visited Wing and caused the churchwardens to pay for two books of prayer to be compiled for those dead of the disease. An outbreak of plague struck Aylesbury on December 14th 1603, according to the parish records; numerous people died so that consternation prevailed.[9] Often these outbreaks were sudden and deadly bringing disruption and disorder, frightening the better sort and bringing unemployment to the poor, halting trade and breaking down the normal social controls of law and order, so that according to contemporary evidence,[10] grass grew in the streets.

In January, 1604, the town was still beset by plague and no one would come near it unless compelled. A parliamentary election was held at Brickhill rather than at Aylesbury 'because of the visitation of sickness'. This latter reason is confirmed by the High Sheriff in a letter stating that three people were lying dead at that moment.

After the outbreaks of the years 1603-4 plague apparently disappeared until 1624, with the exception of a severe and isolated attack at High Wycombe in 1617, in the southern arable area of the county, when 112 people were buried. Its unusual severity is indicated by the fact that during the previous fifteen years an annual average figure of 67 burials had been recorded and in the years of 1618-30 following, an average of just under 70 burials. In 1624, a similar sharp increase to 100 burials and in 1625 a sharper increase to 129 burials was registered, which from 1626-30 decreased to under 59 burials. In 1631 and 1632 more dramatic increases to 109 and 149 burials respectively were registered. The vicar helpfully had added the word 'pest' to the entries of those afflicted, indicating that autumn was the most vulnerable period. At the parish of Horton, which cannot be taken as representative because of its small size, 34 plague burials were also recorded; since Horton had the most important paper-mill in the county in use;[11] the plague deaths were attributed to rags collected for paper-making,[12] a credible argument since the storage of rags would encourage the breeding of rats and fleas. The burial entry pattern is repeated in the parish of Great Marlow, where burials increased to 70 in 1625 from an earlier annual average of 35, showing a similar increase in 1631. In 1625, Little Marlow also appeared to be similarly afflicted for the register noted that Mary, the wife of Sir William Borlase[13] was buried 'dying from the plague' as did eighteen more. This entry is significant since a number of the wealthier class had succumbed to the plague, possibly contracted after a charitable visit to the lower orders.

In the central mixed-farming region of the county the register entries indicated little of the devastation experienced in the south. 'In December 1624, began the great plague, which continued till the end of December 1625, in all of which time there died

7.R. S. Roberts, 'The Personnel and Practice of Medicine in Tudor and Stuart England', pt. i. 'The Provinces', in *Medical History*, vol. 6, 1962, 363-82; and ibid. pt. ii, 'London', vol. 8, 1964, 317-34.
8.Creighton *op. cit.* p. 523; Shrewsbury *op. cit.* p. 351, p. 485.
9.*Records of Bucks*, Vol. I p. 75.
10.Creighton *ibid:* Shrewsbury *ibid.*
11.*Calendar of State Papers (Domestic) Charles I* (1624) No. 40.
12.*Victoria, County History, Bucks.* Vol. III p. 282 (Grace Ellis).
13.Sir William Borlase had been High Sheriff in 1601; he founded the free School at Great Marlow in 1624.

"not one of the towne of Aylesbury". The registers of Aston Abbots,[14] Aston Clinton[15] and Bierton[16] also indicated an apparent lack of effect although the registers of Waddesdon[17] indicated a minor crisis in 1621 and again in 1626[18]. Wing[19] parish also experienced a minor crisis in 1625, but nothing comparable with the havoc being wreaked further south in the county. This comparative freedom from attack could possibly be accounted for by the fact that the central thoroughfares were not as frequented as the other county routeways to the north and west.

The northern mainly pastoral lands also appeared to be more vulnerable to attack, for at Buckingham in 1623[20] the burial entries nearly trebled from 23 to 67 while in 1626, the burial register entries were four times the decadal average at St. Giles, Stony Stratford,[21] and at Winslow[2] the numbers were treble the average. It is significant that these parishes are near or, in Stony Stratford's case, on the main thoroughfare north, helping in the diffusion of the disease.

The best attested and most famous plague occurred in 1665 and was reputed to have "gott into ye land at Yarmouth and London"[23] according to one contemporary. Shrewsbury asserts[24] that 'many townships and parishes within a day's ride of London – about 25 miles – especially those in the Thames valley were invaded by plague.' Reports[25] from the county confirmed that plague was active in 20 parishes in the Thames Valley area. The parishes were not named in official reports but from the evidence of the registers they seem likely to include High Wycombe,[26] Great Hampden,[27] Great and Little Marlow[29] in the south, Lavendon[30] and Fenny and Stony Stratford in the north. In the burial entries for 1665 in the Chalfont St. Giles register[31] two people are recorded as dying from 'supposed plague' and no others. At High Wycombe only six miles away, a devastatingly sudden attack occurred, proving to be highly effective. In fact no indication of what was to come occurred, but in July plague broke out and spread rapidly, 'This year buried one hundred and fifty-nine of the pest ninety six', is written in the register.[32] The following year, another entry reads 'Numbers buried this year one hundred and forty-four, whereof the plague one hundred and one,[33] thereafter the burial numbers decreased dramatically until an outbreak of smallpox in 1679.

The northern parishes of the county also experienced a similar if not more devastating attack. The burial entries at Bletchley in 1665 numbered one hundred and twenty six, which was six times the normal average.[34] Spillman stated that during the

14.Bucks Record Office, hence forward BRO, PR7/1/1-4.
15.BRO PR 8/1/1.
16.BRO PR 16/1 1Q-2.
17.BRO PR 215/1/1-2.
18.R. Gibbs *A History of Aylesbury* p. 343.
19.BRO PR 234/1/1-2;D/A/T 185-86.
20.BRO PR 29/1.
21.BRO D/A/T/164, PR200/1-4.
22.BRO PR237/1.
23.*Diary of Rev. Ralph Josselin* ed. E. Hockliffe London Camden Society 1908 p. 147 cited by Shrewsbury *op cit* p. 488.
24.Shrewsbury *op cit* p. 485.
25.*Calendar of State Papers, Domestic* 1655-66 p. 5 no. 34.
26.High Wycombe Record Office (henceforward HWRO) SM 890/22C/107B.
27.BRO PR 90/1/1.
28.BRO D/A/T 126-7 (Incumbent Rev. Dr. Day).
29.BRO PR 141/1/1.
30.BRO B23 11st 2.
31.BRO PR 35/1/1-3Q.
32.HWRO SM 890/22C/107B.
33.HWRO SM/890/22C/107B.
34.BRO D/A/T20-21.

attack the highway was temporarily diverted and 'the town has never recovered its former status'[35], providing evidence of the occasionally permanent economic effects of a particularly virulent and devastating plague attack. Bradbrook[36] observed that Watling Street ran through the Stony Stratford end of Bletchley and the "*pastuerella pestis* in the fleas of the *rattus rattus* were able to and did hide in the bulky merchandise carried along that main throughway to and from London, dispersing themselves at recognised night-halting places along the way. Fenny Stratford[37] also shared in the general mayhem; its register had an entry on December 29th 1665 of one hundred and nine people dying of the plague, with inns shut and market stopped in order to avoid 'this contagious and dreadful disease'.[38] Stony Stratford's register[39] mentioned that a collection had been taken for the relief of Lavendon's poor, indicating the disproportionate degree of suffering that a sparsely populated rural village endured with its fifty deaths. In that northern locality generally five hundred and one people were buried, which caused a great deal of concern.

At Aylesbury, the disease was rife Sir Ralph Verney[40] noted in his diary, 'It's suspected to be at the Black Swan in Holborn where the Alisberry and other coaches stand' – soon afterwards, significantly, all the carriers were stopped.[41] Too late, as Verney observed. Mention is also made of plague cases at Stowe, Winslow, Hardwick and Wendover. A wandering dog was said to have carried the disease from the last mentioned village to Ellesborough where the Rector, Thomas Emery died from plague. The severity of the outbreak can be judged by the fact that a pesthouse was set up in the field outside Aylesbury and its inhabitants forbidden to wander in search of fuel. The already overcrowded gaol was also stricken by plague in July 1666 – a complication of gaol fever possibly, of the typhus variety, which afflicted places where large numbers of people lived together in crowded and unhygienic conditions. The gaol itself was 'so decayed that it was scarce fit for a dog-house[42] ...' and had long been recognised as a centre of infection. On March 13th 1665, two committed Quakers were sent to the House of Correction at Wycombe[43] for their better safety against the prevailing pestilence. Other Quakers and Non-Conformists were later imprisoned, aggravating the situation even further. The pesthouses built in Aylesbury were usually a feature provided in response to an outbreak of epidemic disease by the local overseers whose records begin in 1656. These pesthouses involved considerable expense, the greatest part of which, if the records are to be believed, seemed to concern the payment of wages to the night and day watchmen; the actual welfare of the inmates appeared to be wholly neglected. Few, if any, preventitive measures were normally taken against epidemic disease in this country by the local authorities, on the scale that occurred in either France or Italy. The reason probably lay in the fact that those countries were more vulnerable to devastating attacks of disease with greater frequency and virulence. Plague in either its endemic or epidemic form rarely appeared after the

35.*Victoria County History of Bucks* Vol IV p. 276 – J. Spillman.
36.*Records* Vol VIII pp. 91-102 W. Bradbrook.
37.BRO D/A/T 83.
38.*Records* Vol I p. 222 R. Gibbs.
39.BRO PR 200/1–4; *Records* Vol VIII p. 276.
40.*Verney Memoirs* 2nd. ed. 1907 Vol I pp. 402-23.
41.This could be taken as contemporary comment on the increasing importance of coach transport, for which see J. A. Chartres, 'Road Carrying in England in the 17th Century', in *Econ. Hist. Rev.*, ser. ii, vol. xxx no. 1, 1977, p. 87.
42.*Purefoy Letters* ed. G. Eland Vol II p. 79.
43.R. Gibbs, *History of Aylesbury* p. 222.

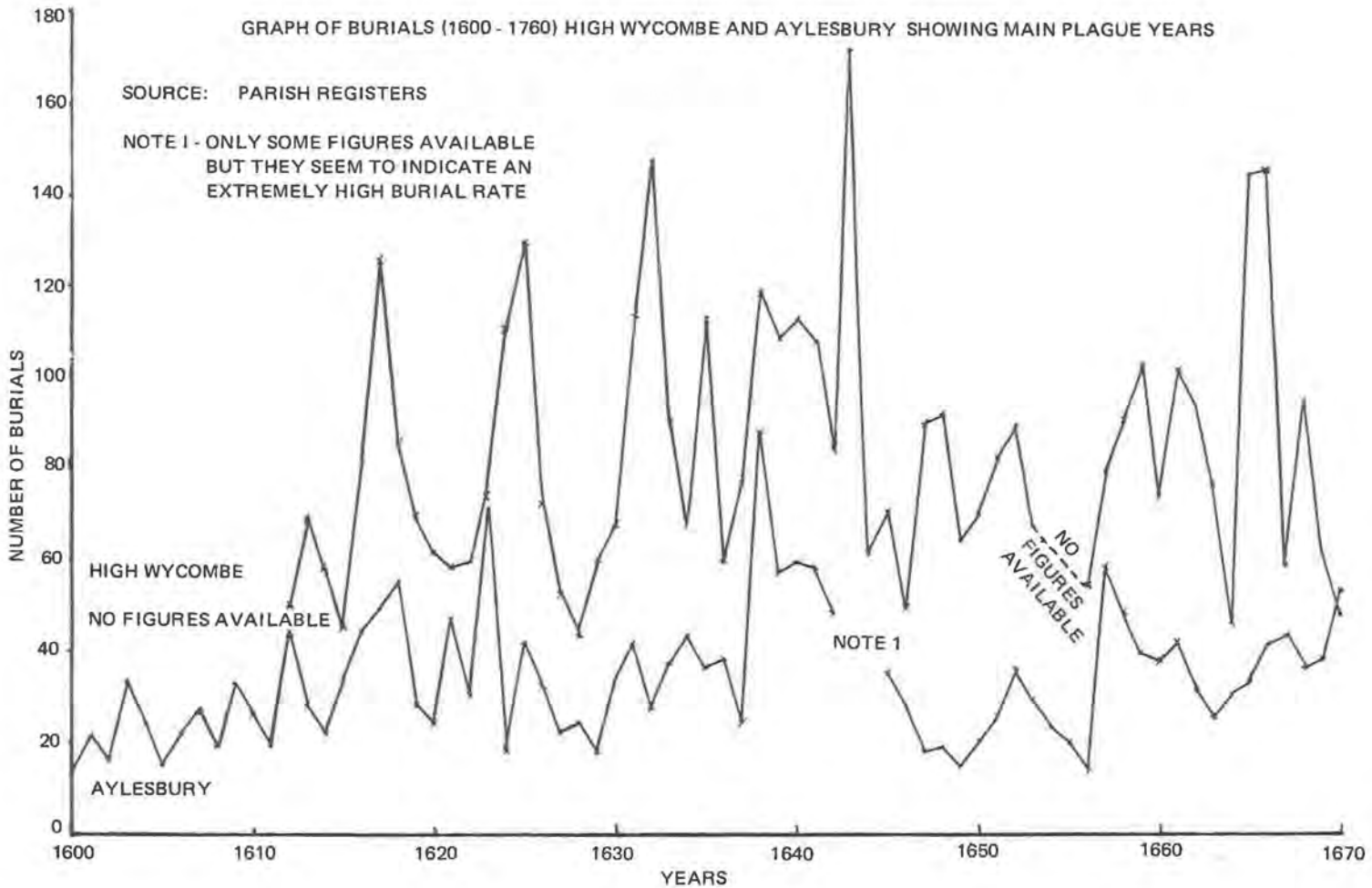

Fig. 1. Graph of Burials.

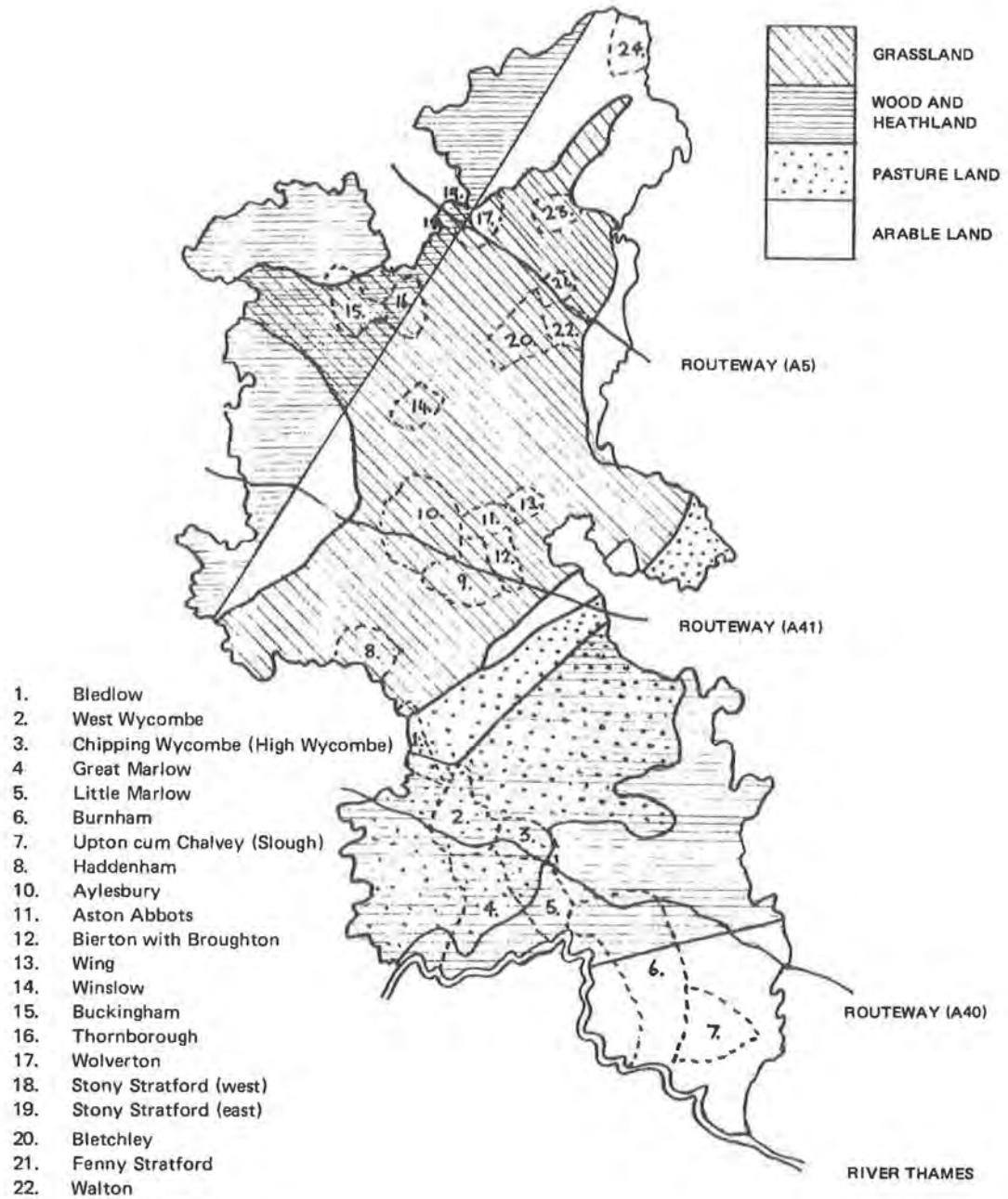

Fig. 2. Buckinghamshire indicating pastoral/arable areas and selected parishes.

general outbreak of 1665-67 and Buckinghamshire followed that pattern, more frequent outbreaks of smallpox assuming increasingly greater significance. In 1669, there was an outbreak of a *cholera morbus*, which appeared to have the same symptons as plague. This made diagnosis more difficult for contemporary doctors, who tended to rely on the word 'fever' to describe most illnesses.

From this necessarily selective and brief investigation emerges the fact that parishes to the west and north of the county that border on, or wholly or partly contain, a main thoroughfare seemed to be more vulnerable to recurrent and devastating plague attacks.[44] The geography of the different areas also appears to be of great significance in assessing the different effects of disease, since Buckinghamshire can be broadly divided into the Chiltern country, with its chequered landscape of champion and woodland and the Midland plain including the Vale of Aylesbury with its landscape of mixed farming lowland and wooded upland.[45] The champion and mixed farming areas would indicate more permanent settlement whereas the common woodlands would be more likely to harbour wandering vagrants and people of a less settled character.

The main routeways in Buckinghamshire tend to pass through wooded country in the south and north which would confirm and exacerbate the vulnerability of these areas to infection.[46] In parishes of the southern arable region vulnerability seems to be linked to another potent source of infection viz. the River Thames.[47] The spread of plague along rivers had been recognised for some time by several authorities, who had organised river-watches on occasion. They were largely ineffective because of the general lack of understanding of the aetiology of the disease.[48]

Consequently the greater vulnerability of parishes on major roads, like Stony Stratford, Fenny Stratford, Wolverton, Great Marlow, Little Marlow and High Wycombe was only to be expected. The particularly severe plague attack of 1665 on Bletchley, from which the town never recovered its earlier commercial position is an example of what could happen with disastrous permanent economic and social results. It added another dimension to the problem of proximity to routeways or river because of the greater volume of traffic, human and commerical, and emphasised the greater differential effect of plague largely because of the greater opportunities provided for the diffusion of the plague germs. However, Buckinghamshire seems to have followed the general pattern of plague incidence, within the evident variations.

44.J. A. Chartres, *loc cit* p. 87 and L. A. Clarkson *The Pre-Industrial Economy of England 1500-1750* pp. 152-57 1971.
45.J. Thirsk (ed.) "Agricultural History of England and Wales" Vol IV p. 49, E. Kerridge *The Agricultural Revolution* 1967 p. 56.
46.C.f. P. A. Slack, 'Vagrants and Vagrancy in England 1598-1644' in *Econ. Hist. Rev.*, ser. ii, vol. xxvii no. 3. 1974, p. 375.
47.E. A. Wrigley *et al Introduction to Historical Demography* p. 18.
48.Shrewsbury *op. cit.* p. 307.