

Demography of the Cartmel Peninsula:

Predicting the historical population from the Parish registers

The Cartmel Peninsula in Northern England is located in the South of Cumbria. The Peninsula is to the North of Morecambe Bay and until the coming of the Ulverstone & Furness Railway in 1857, the main access to the area was either by boat or across the bay. Man is known to have inhabited the area since 10,000 BC, post the last glacial retreat. Mesolithic remains were found in Kirkhead Cave (stone blades) (1). Recent excavations have uncovered two Bronze-age cremation sites in Allithwaite dating to 3000 BC.

Prior to the 19th century the area was predominantly rural with an economy based on basic agriculture, together with a small fishing industry. From the 19th century, in England, there was rapid growth in the population and the industrial revolution drew the workers from the rural life to the factories in the towns and cities.

The population of the Parish between 1841 and 1911 were obtained from a digital database of the census data prepared by members of the Cartmel Peninsula Local History Society: a project lead by Peter Roden (2). In 1841, the population of the Parish was 4920, increasing to 6653 by 1911 (Table 1), an increase of 35%. The increase in population is relatively small in comparison to the large increase in the population of England (146% over the 70-year period) (Table 2). There is a gradual increase in the population from 1861 to 1911.

Table 1. Population of the Cartmel Parish (data from the censuses)

1841	1851	1861	1871	1881	1891	1901	1911
4920	5212	5109	5489	5602	6318	6271	6653

The question is: what was the population in the Parish in the 16th, 17th and 18th century?

This paper uses the information from the Parish registers for the baptisms, marriages and burials and examines alternative approaches to reconstruct the population numbers in earlier centuries. The two sources of information used were a transcription of the Cartmel Priory registers from 1559 to 1661 (incomplete) (3) and 1660 to 1723 (4) , and the Lancashire online Parish Clerk with its digitised database of the Bishops Transcripts covering the period 1664 to 1869 (incomplete) (5).

a) Population information prior to the 1841 census from the literature

Unfortunately, the census information from 1801-1831 has been lost. In 1836 the population for the Parish of Cartmel, possibly from the 1831 census, was reported to be 4802 (6). Finlay states that the 1801 census recorded 4007 inhabitants for Cartmel, and the population in the 1660's was about 2150 and in the 1740's 2350 (7). Finlay chose Cartmel for his study as it was almost entirely agricultural. However, Finlay has not explained how the earlier population numbers were derived. In his extracts from the Old Church book, Stockdale (8) records that in 1679 the Rev. John Armstrong "*took account of the number of inhabitants and found them to be 1389, viz.: 1329 protestants, 29 papists and 31 dissenters*". One wonders if this count includes children? Mawdesley reports the Parish contained over 2000 inhabitants before 1660 with no more than 30 Quakers (9)

b) Methods used to predict earlier population numbers

John Rickman organised the collection of the UK census information in 1801 and subsequently in 1811, 1821, 1831 and the 1841, and he died in 1840 just before the collection of the 1841 information (10). During the collection of census information from 1801-1831, Rickman asked the Anglican incumbents to submit returns from the registers for births marriages and deaths for the years 1570, 1600, 1630, 1670, 1700 and 1750 for the purpose of estimating the national population numbers. Assuming a constancy, he estimated the population for each county for the above years as a ratio to 1801 (10).

Focussing on the period from 1761 to the first census in 1801, Wrigley proposed using the data solely from marriage registers to predict the population. It is suggested that after the Hardwick Act of 1754 requiring the registration of nearly all marriages, that the marriage data was a more reliable method to predict earlier numbers (11). Wrigley used the mean value based on 13 years for each year prediction, ie 1761 was based on the number of marriages from 1755 to 1767. His method demonstrated an increase in population of 24% and 52% for Westmorland and Cumberland respectively. Wrigley suggests that in the latter part of the 19th century the baptism and burial registers are incomplete. He also uses the 1821 census returns as the point of reference as the 1801 census was defective, with low returns for children, paupers and the armed forces.

c) Information from the Cartmel Parish Registers

The earliest available complete records for Baptisms and Burials and Marriages in the Parish of Cartmel (for the Priory Church of St Mary and St Michael) are from 1559 to 1661 (3). The information is missing for the period 1585 to 1592 and the registers are incomplete or only fragmented records from 1649 to 1661.

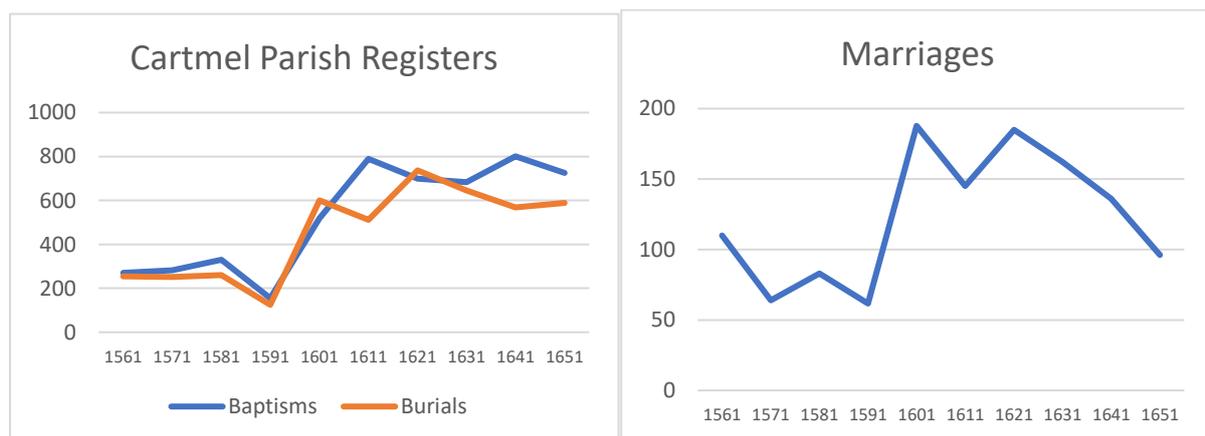


Fig 1. The total number of Baptism, Burials and Marriages for each previous decade derived from 1559 to 1661 data.

The high number of deaths in 1597 was due to a plague which spread throughout the north of England (12) and was followed by a high number of marriages and births in the following

years. Fig 1 also shows the effect of the deaths from the famine in 1623 when in the 1620's the number of burials slightly exceed the number of baptisms in the register. In the 1560's and 1570's there were approximately 30 baptisms per year and 25 burials per year. At the beginning of the 17th century, there was a large step-change increase (2-fold) in the number of baptisms, marriages and burials recorded in the register at the Priory (see fig 1) suggesting a possible rapid increase in the population on the Peninsula at this time. In the 1640's there were 60 baptisms per year and 40 burials per year.

When the registers are in use again in the 1690's there are fewer baptisms and burials (40 and 20 per year respectively) although the number of marriages is greater (see fig 2). One wonders whether these differences reflect a decrease in the population?

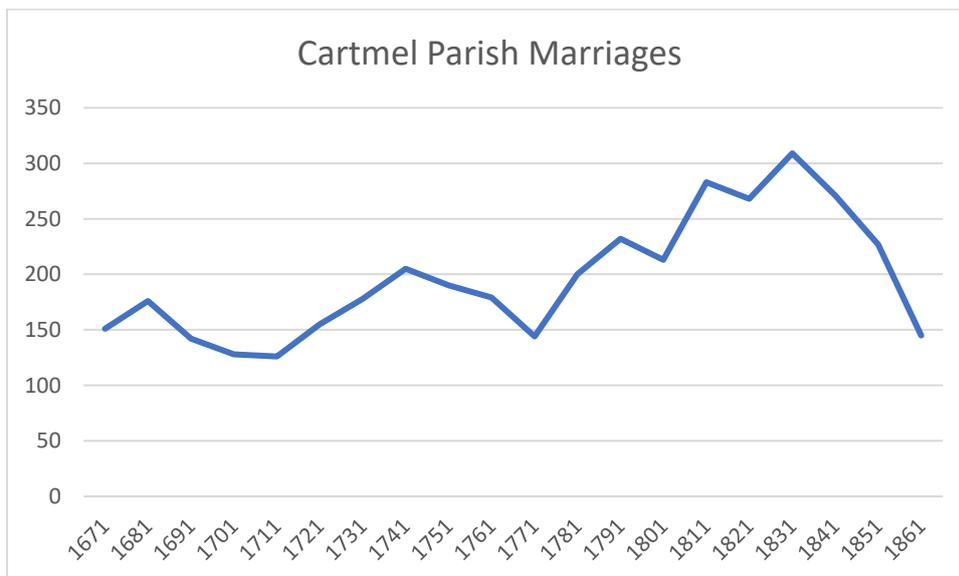
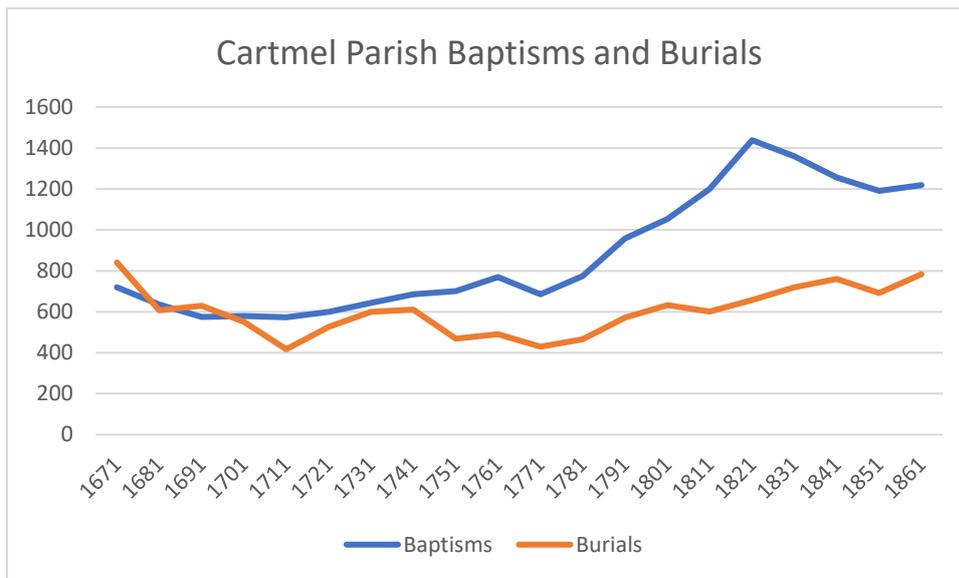


Fig 2. The total number of Baptism, Burials and Marriages for each previous decade derived from 1662 to 1861 data.

From 1661 until 1701, the number of burials is similar to or slightly greater than the number of baptisms indicating a stable population or even a slight decline (fig 2). In the period for 1701 until 1741 (fig 2), the number of baptisms is only slightly greater than the number of burials. Subsequently, the baptisms numbers for each decade were much greater than the burials. The positive difference between the number of baptisms and burials indicates a rapid growth in the population up to 1861. A simple estimate of the population increase of the Parish using this difference is very high and unrealistic.

Similarly, the number of marriages registered declined from 1661 to the beginning of the 18th century and then increased up to a maximum in 1831. The subsequent decline in registered marriages is associated with the establishment of new churches in the Parish with separate registers. The trend for marriages also suggests a rapid increase in the population in the Parish from 1771.

The registers from the Anglican Church of St Mary and St Michael in Cartmel provide a realistic estimate of the births, marriages and deaths in the Parish. Non-conformist groups and the Quakers etc are not included in the registers (11). Therefore, the population is estimated assuming that these minority groups are a constant proportion of the community.

d) Reconstructing the population from the births, marriages and burials using methods proposed by Rickman and Wrigley

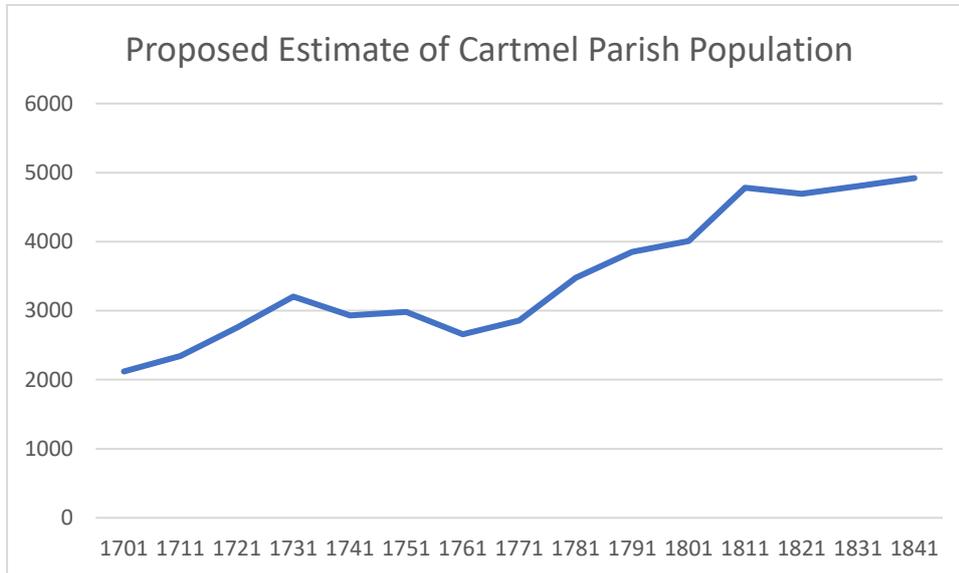


Fig 3. Best estimate of population

The best estimate information (Fig 3) was computed from the number of marriages between 1761 and 1831 (Wrigley’s method (11)), or if available the census data. For 1701-1751 the population is estimated from the number of baptisms, marriages and burials (Rickman’s method (10)). The method uses the information from the 1801 census population, and the average number of records (for 15 years around the date) in the register. The estimate for each time point is calculated from a ratio.

Therefore, the population in 1701 and 1751 will have been 2119 and 2983 respectively and from the 1801 census the population was reported as 4007, rising to 4920 by 1841. For the 1740's the predicted population of 2932 is greater than the number used by Finlay (7). The projected population between 1761 and 1801 increased by 50%, similar to estimated increase for Cumberland (11).

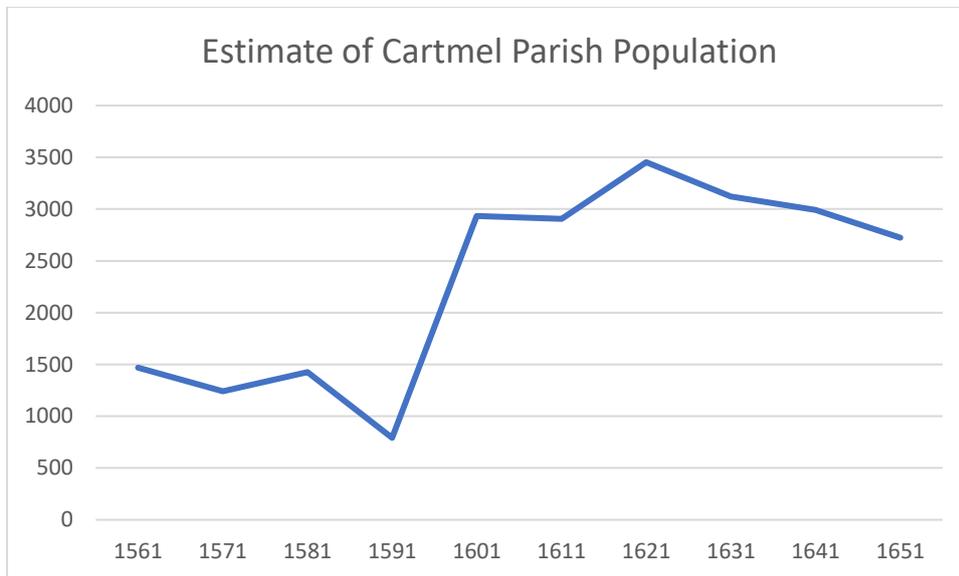


Fig 4 Projection of the population from the 1560's to the 1640's

The population projection of approximately 1500 for the second half of the 16th century (1469 in 1561) appears sensible. The registers suggest that the population in the first half of the 17th century was around 3000 (fig 4), a similar number of residents in the Peninsula a century later. The projection predicts a rapid increase from the 1570's up to 1600 and doubling of the population. The doubling of the population in the 1590's is astonishing and difficult to explain. The prediction is a result of the high number of burials in 1597 and 1623 and subsequent high baptisms and marriages in subsequent years. Is it possible that this predicted increase is due to migration into this rural / agriculture and fishing community from the uplands at a time of famine and plague?

e) Conclusion

The population projected for the 18th and first half of the 19th century, including the known census numbers for 1801, 1831 and 1841 are as follows:

1701	2120
1711	2340
1721	2760
1731	3200
1741	2930
1751	2980
1761	2660
1771	2860
1781	3480
1791	3850
1801	4010
1811	4780
1821	4690
1831	4800
1841	4920

At the end of the 16th century, at a time of plagues and famine, the numbers of baptisms, marriages and burials doubled between 1581 and 1601. The population estimate for this period requires consideration and further research. The records for the second half of the 17th century are missing from the Bishop's transcripts presented in the online Parish Clerk.

For 1701 to 1751, the population has been computed by counting the baptisms, marriages and burial numbers in the Lancashire Online Parish Clerk database (5). The reported values from 1761 to 1821 were estimated from a count of the number of marriages.

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