

Roger Schofield Memorial Conference

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Roger Schofield as Historian and Demographer: An appreciation.

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Roger Schofield's family background might suggest the real possibility that he would never have pursued an academic career. His father, Ronald Schofield, was the eldest son of Snowdon Schofield, who was the founder before World War I of Schofield's, which eventually became Leeds's principal department store, often thought of as the 'Harrods of the north' with other Yorkshire branches in Skipton, Harrogate and Sheffield.¹ When his father, who had been the Managing Director of the family firm, died in 1969, Roger was quite firmly embarked on an academic career that was already indicative of his multi-faceted array of talents as an historical social scientist although I am sure had he been so inclined he could have followed a pathway more lucrative financially than, and very different from, the one that he chose. His career was certainly not that of a conventional historian since, notwithstanding his fellowship at Clare College where he very successfully taught economic and social history, he was principally employed by the Social Science Research Council and then its successor the Economic and Social Research Council after these bodies had become the main, for 25 years the sole funders of the Cambridge Group for the History of Population and Social Structure. Although from an early point in time Roger's credentials as historian through a first degree and PhD in history were firmly planted as well as a Fellowship of the Royal Historical Society in 1970, he was soon to become a trustee of the Population Investigation Committee from 1976, its treasurer from 1988-96, a co-editor of *Population Studies*, a member of the software provision committee of the UK Computer Board, in fact its treasurer from 1987-1997, a Fellow of the Royal Statistical Society, Presidents of both the British Society for Population Studies and of the US-based Social Science History

¹ Alan Bennett makes a sort of reverential reference to eating at Schofield's renowned café as a child and the purchase of luggage in the store before going to Exeter College, Oxford in 1954, Alan Bennett, *Writing Home* (London, 1994), pp. 14, 322-3.

Association, one of the earliest European members of the editorial board of the principal North American journal, *Demography* and a member of the International Union for the Scientific Study of Population and chair of one of its committees. Furthermore when elected to the British Academy in 1988 it was to an all-embracing but then very small social science section which then was made up of fellows from Demography, Social Statistics, Human Geography, Sociology, Social Anthropology and Psychology but which as subject areas now form three separate sections. Roger nonetheless was immediately on election invited to join one of the two History sections of the Academy.

These very considerable distinctions in the social sciences should not be allowed to detract from his essential qualities as a historian which I regard as constituting the fundamental key to his overall academic standing and his particular intellectual insights. I will first consider the context within which those skills became embedded when an undergraduate and post-graduate historian at Clare College in the 1950s and early 1960s. I will then move to review the ways in which they shone through recurrently in his work as historical demographer, economic and social historian as well as purveyor of quantitative analytical techniques and finally of particular significance, given the context within which this meeting has been arranged, his role as local historian and empathetic supporter and key provider of encouragement and material resources to the historical amateur.

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First let us take account of the forces at work in the teaching of and research in history in the 1950s and early 1960s in Cambridge and particularly the specific role played by Geoffrey Elton who was a leading history fellow of Clare College as well as a force to reckon with in the Cambridge History Faculty as a whole. Roger was an undergraduate at Clare, having come up from the Quaker School of Leighton Park in Reading in 1956. Elton was then setting a cracking pace in the revision of Tudor and especially early sixteenth century English history. Roger chose to do research for his doctorate under Elton's supervision and opted to work on the legislation, administration and yield of parliamentary lay taxation between 1485 and 1547 which constituted a subject he referred to 40 years later as his 'first love'.² Elton had, just before Roger arrived in Clare, published in the space of three years *The Tudor Revolution*, the fruits in particular of his highly innovative study of Thomas Cromwell and *England under the Tudors* which was an exceptionally influential text, both among sixth-

² R. Schofield, *Taxation under the early Tudors* (Oxford, 2004), p. xiii.

formers and undergraduates, and had begun to assemble around him a group of especially talented graduate students who were fully engaged with a PhD supervisor who was not himself a product of Cambridge.³ Elton adopted a highly professional, seminar-based framework for the generation and scrutiny of research by his students, in a manner that was not at all characteristic of the more gentlemanly and light-touch relations between supervisor and student that then prevailed in Cambridge. Elton's research students produced work of very considerable quality and generally completed their PhDs within three years, as did Roger between 1959 and 1962, before his election to a research fellowship in Clare College. Roger certainly endorsed and replicated that Eltonian *sine qua non*, namely the complete command of the archive, particularly those state records that were such an essential by-product of the precocious administrative machinery that constituted late medieval and early modern English government and set it apart in key respects in Europe more widely.⁴ Elton certainly imbued his students with the requirement that they had to possess a true understanding of the purposes for which the evidence that they studied was originally created. Indeed this was a methodological starting point for the aspiring researcher which cannot be stressed too forcefully as a characteristic of that school.

Roger's thesis was a truly remarkable piece of analysis.⁵ As an apprentice work it revealed much of what I believe characterised the mature Roger. It contained enormous tabulations of data based upon an amazingly comprehensive survey of the mass of records at the Public Records Office which he was able to complete in the very brief time that he devoted to the thesis's production. Not only did the thesis produce calculations of the yields of the subsidy; it also provided elaborate statements of every incidence of certain types of business found in the Exchequer records and hence gave us enormous detail on how the subsidy was administered. The unpublished thesis was subsequently ransacked by other scholars and had a citation rate as an unpublished body of research on Tudor England that I

³ G.R. Elton, *The Tudor Revolution in Government: Administrative Changes in the reign of Henry VIII* (Cambridge, 1953); G.R. Elton, *England under the Tudors* (London, 1955).

⁴ G.R. Elton, *Return to Essentials: Some Reflections on the Present State of Historical Study* (Cambridge, 1991), Referring to historical evidence as 'relics' Elton states, p. 55 'those relics have to be correctly understood, which is not at all the same thing as being processed through the historian's personal mind. If the material is to be correctly understood we must always start from the one basic question: how and why did it come into existence? The purposes served by the human beings who first created it, and the manner of their proceeding in so creating it, are the ways into a proper understanding of the historical evidence, which is to say that the fundamental questions we put to the evidence are independent of the concerns of the questioner and focused entirely on the concerns of the original creator'.

⁵ R. Schofield, 'Parliamentary Lay Taxation, 1485-1547' (unpublished University of Cambridge PhD. Thesis 1962).

believe cannot be matched and this referencing continued unabated until a version of the thesis received publication in 2004, over 40 years after it was completed in 1962.⁶

Roger's very considerable achievement and important academic contribution was to demonstrate how and why taxation based on direct assessment of each individual was revived during the reign of Henry VIII after having been abandoned in 1334 as unworkable. During the almost 150 years that preceded the accession of the first Tudor, the standard mode of parliamentary taxation had been the fifteenth and tenth (equivalent respectively to tax rates of 6.7% and 10%) and applied to a specified sum of money fixed in 1334 which was little altered thereafter from every vill and urban ward in the country. It was a very simple tax of fixed yield, levied in the first instance on lands and moveables on communities rather than individuals. Roger examined the continuation of this mode of parliamentary taxation under the early Tudors; but the chief focus of the thesis was on the new 'subsidies' as a radical fiscal innovation by which taxes were imposed on and collected from *individuals*, based on periodic assessments not only of their properties and moveables, but also their financial incomes from rents, profits, fees, annuities and most surprisingly for this era- from wages as well (in many subsidies at least). Parliament granted both types of taxation in 43 per cent of the regnal years of both the earliest Tudor monarchs and they were remarkably successful both in terms of the yields achieved and particularly for what might be termed the 'political buy-in' to the revived task of taxing individuals.

Further commentary on one key finding and argument in the thesis will be offered after reflections on a paper that Roger published in 1965 at the end of his research fellowship at Clare College. The paper clearly grew out of his magisterial command of English taxation practices both in the later middle ages and the early modern centuries. It was entitled 'The Geographical Distribution of Wealth in England, 1334-1649', appeared in the *Economic History Review* and was reprinted some years later in a seminal collection of essays that Roderick Floud edited for the Economic History Society entitled *Essays in Quantitative Economic History*.⁷ While Floud had chosen the paper specifically to demonstrate Roger's effective use of Spearman's Rank Correlation Coefficient and Pearson Product Moment Correlation Coefficient, it has so many other qualities that reveal Roger to be the complete

⁶ R. Schofield, *Taxation under the early Tudors*.

⁷ R. Schofield, 'The Geographical Distribution of Wealth in England, 1334-1649', *Economic History Review* 18 (1965), pp. 483-510, reprinted in Roderick Floud (ed), *Essays in Quantitative Economic History* (Oxford, 1974), pp. 79-106.

historian which would go unconsidered if the paper were only to be regarded somewhat narrowly as an exercise in the use of a particular statistical methodology.

Roger's aim in that article was to challenge the claims that E.J. Buckatsch had made in a paper entitled 'The Geographical distribution of wealth in England 1086-1847' also published in the *Economic History Review* in 1950 and also using correlation analysis (perhaps the first time correlation analysis was to appear in that journal) to underwrite the case. Buckatsch's claims were that 'the geographical distribution of wealth appears to have remained remarkably stable from the early fourteenth to the end of the seventeenth century, and to have changed very greatly during the eighteenth century'.⁸ This might be regarded a rather conventional chronology for economic change as it was then supposed to have been framed within a specific view of the chronological extent of pre-industrial England. More precisely, Buckatsch argued that the tax assessments of 1453 and 1504, central to his argument, showed that practically no redistribution of wealth had taken place in the 150 to 200 years after the early fourteenth century. Roger in his paper was not contesting the use of tax assessments to gauge wealth and its geographical distribution but arguing that as sources for that purpose, tax assessments had to be genuine tax assessments made in the year to which they purported to refer, and ~~should not be~~ merely repetitions of earlier assessments which would have constituted dubious data for the measurement of change. Buckatsch had been dependent on the use of printed material and was certainly no medievalist or well versed in the ways of the English Exchequer. Roger, however, was the complete expert with respect to the primary sources and in a devastating critique showed that the use of tax sources in 1453 and 1504 fundamentally failed to meet the required criteria. He also took care to establish how far the inclusion of clerical wealth might distort data using lay subsidies alone for the task in hand. The paper is a triumphant exercise first and foremost in source criticism. It also shows Roger dissecting the subsidies of 1514 and 1515 so as to show that they did indeed meet the test for comparison with that of 1334 and when used comparatively revealed very significant geographical redistribution of wealth in the 175 years following the Black Death. The size of the rank and product moment correlation coefficients were used to demonstrate the extent of the change. In 1334, with the exception of Kent, Roger showed that the wealthiest counties lay along a fairly narrow band starting in Gloucestershire in the south-west through the south Midlands and into northern East Anglia. Before the Black Death the

⁸ E.J. Bukatsch 'The Geographical Distribution of Wealth in England 1086-1843', *Economic History Review* 3 (1950), p. 200.

area perhaps represented, Roger suggested, the predominantly arable farming regions in which wheat was the principal, indeed preeminent, cash crop. By 1515 the wealthiest areas of England were to be found south of a line from the Wash to the Severn estuary and the 12 richest counties were now concentrated in two areas: in the west one included Somerset and Gloucestershire and in the east one stretched from Berkshire through the Home Counties into Essex, Suffolk and Kent. There was also a striking growth in London's or Middlesex's share of national wealth. London by 1515 had 10 per cent of national assessed tax wealth compared with less than three percent in 1334.

This paper still has considerable relevance to the issue of the extent to which the basis of wealth was starting by the early sixteenth century to diversify away from agriculture *per se*, to textiles and mining (eg. Devon). It also shows how the emerging commercial and industrial dominance of London as a geographical focus and engine of larger-scale change was coming into existence as it drew trade away from any other older centres in the fifteenth century, to embark on a course that saw it grow to become the largest urban centre in North-west Europe a century or more later. Some of these were features of the early Tudor English economy that were to be further expanded by 1600 when the non-agricultural share of employment was already substantially higher than had been conventionally expected and which the work of Leigh Shaw Taylor, Sebastian Keibek and Tony Wrigley has in more recent years been able to demonstrate in research undertaken at the Cambridge Group using parish registers and probate evidence.⁹ Had Roger's health not deteriorated I am sure he would have been an accomplished participant in this revisionist work on the male occupational structure of England and Wales during their precocious transition from a predominantly agrarian economy to one in which the secondary and tertiary sectors began to dominate after 1600.

In effect the central contribution of Roger's paper was not the use of correlation analysis but the devastatingly powerful demonstration of source criticism that under-pinned it. I am sure that this feature of the paper would have impressed Geoffrey Elton even though he may have found the statistical analysis less to his taste. It is also noteworthy that this paper showed Roger's capacity to work at a high level as both medievalist and early modernist and to cross the so-called '1485 divide' which I personally found inspirational.

In this consideration of his early work on taxation I will return to the results of his PhD thesis, and in particular one feature which thereafter he expanded somewhat in a sparkling

⁹ See in particular, S. Keibek, 'The male occupational structure of England and Wales 1600-1850' (unpublished University of Cambridge PhD, 2017).

paper that he produced for a *festschrift* presented in 1988 to Geoffrey Elton on his retirement from the Regius Chair by his English graduate students. This *festschrift* was published under the revealing title of *Law and Government under the Tudors*.¹⁰ Roger begins that essay by stating that ‘a study of taxation... should throw light not only on the social and economic characteristics of a society, but also on its political and administrative structure and its constitutional concepts of *obligation* and *consent*’.¹¹ In making such a statement we observe Roger just as interested in issues to do with political relationships as with economic matters and also revealing his considerable breadth as a historian. These interests were set within that particularly important episode in the history of taxation in England given, as has already been noted, that it was under Henry VIII that taxation based on the direct assessment of the wealth of each individual was revised after having been abandoned in the fourteenth century. This phase was not long lasting and it was abandoned again in the seventeenth century after decades of complaints about evasion and under-assessment and would not be revived again until the very end of the eighteenth century under the exigencies of the government funding needs to fight the Napoleonic Wars. In the long run the early Tudor experiment failed to be sustainable, but Roger attempts to measure the extent of its success and the reasons for its eventual failure were pursued with a view to casting light on what most pointedly he termed ‘the political limits’ of the early Tudor state.

The essentially progressive system of taxation that in theory underpinned the early Tudor subsidies meant that they were intended to reflect the current value of the wealth of every adult whether in the form of income or moveable goods. Responsibility for ensuring that this was the case rested squarely on the shoulders of the commissioners. Clearly so wide-ranging and complex a form of taxation posed a massive challenge to the Tudor polity. Could it manage the task administratively and above all was there sufficient political commitment to the national interest among the leading social classes, from whose ranks the tax commissioners were drawn, to ensure that the assessments certified to the Exchequer were really based on the true substance and value of every taxpayer? Roger’s penetrating analysis and remarkable knowledge of the Tudor administrative machinery and record-keeping led him to suppose that the manpower and skills were sufficient to manage the task, but he reached a very different conclusion about the extent of political commitment on the part of

¹⁰ R. Schofield, ‘Taxation and the political limits of the Tudor state’, in C. Cross, D. Loades and J.J. Scarisbrick (eds.) *Law and Government under the Tudors: Essays presented to Sir Geoffrey Elton on his retirement* (Cambridge, 1988), pp. 227-256.

¹¹ *Ibid.*, p. 227.

Tudor elites over the long run. He was aware that the yields of the tax were not rising in ways that were commensurate with inflation in the reign of Elizabeth and especially the second half of the sixteenth century, from the late 1570s onwards. His suspicion had been stimulated by work of another scholar on the peerage who were a group assessed by special commissions so that their assessments should in theory not have been affected by any under-valuations arising from local collusion among commissioners.¹² However this work showed a rising tendency for this group's assets to be markedly undervalued as time passed in the later 16th century. Roger looked for a means of testing the accuracy of the subsidy assessments against independent valuations of individual incomes or wealth made within a short period of time of the subsidy assessments. One such source was the probate inventory of an individual's moveable goods which enabled him to do some rudimentary nominative linkage with those same individuals when they appeared in the tax assessments. He collected almost 600 of these against which he attempted to compare the identified individual's own subsidy assessment over the period from 1524 to the 1570s, enabling him to take into account the complexity of the wealth, the time elapsing between the making of the inventory and the subsidy assessment, region, exemption limits prevailing in the tax, time period and net wealth of the individual. There was the potential for considerable interaction between some of these factors so Roger employed a form of multiple classification analysis (a multivariate form of variance analysis) enabling him to estimate the magnitude of the independent influence of each of the six explanatory factors that have previously been outlined. He was able to show how time period and net wealth of the tax payer were unambiguously associated with the accuracy of the subsidy assessment. The accuracy of the assessments decline steadily through the Elizabethan decades, but by far the most striking result to emerge from the multiple classification analysis was the fact that the wealth of the taxpayer accounted for almost three times more variation in the accuracy of the assessments than could be attributed to time period, the next strongest factor. The allegations made by Queen Elizabeth and her privy councillors that rich taxpayers were being more favourably treated than the poor in the later sixteenth century were amply confirmed. While not surprising, that a combination of personal self-interest and the exigencies of patronage politics conspired to undermine the directly assessed subsidy, what emerged from this powerful statistical analysis, was not the collapse of the efficacy of direct assessment over time, but the fact that in Henry VIII's reign the leading social classes and the crown displayed a striking, possibly unparalleled, later

¹² Helen Miller, 'Subsidy assessments of the peerage in the sixteenth century' *Bulletin of the Institute of Historical Research* 28 (1955), pp. 15-34.

medieval and early modern willingness to operate a system of taxation that revealed a high degree of distributive justice, several centuries ahead of its time. It tells us a good deal about the very considerable effectiveness of the early Tudor taxation state and certainly a significant endorsement of one element in the Tudor Revolution in government, to use Elton's terminology. It is ironic that a statistical tool of the kind that Elton himself would perhaps have regarded with deep suspicion, possibly repugnance, was being used by Roger emphatically to endorse a central element in Elton's own claims about early Tudor administrative innovation and success that formed part of his 'Tudor Revolution'. This remarkable paper also shows just how rounded was Roger's approach as an historian, displaying an array of talents that ranged across a broad spectrum of historical issues, sources and techniques. It provides evidence to indicate that had he wished, Roger could have created a position for himself as a Tudor constitutional and political historian just as lofty as that which he achieved as a historical demographer.

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We know, of course that Tudor history was not the historical speciality that Roger pursued from the late 1960s. He became a research officer of the Cambridge Group in 1966 and it is very clear that his interests and responsibilities from the outset ranged widely over the portfolio of problems that Peter Laslett and Tony Wrigley had placed on the Group's agenda after its foundation in 1964. It is also apparent that Roger developed areas of research that were very much his own. David Cressy in his paper for this conference provides a very effective account of how Roger's pioneering work on literacy and of his own relationship with him as he began to work on this subject under Roger's supervision. Roger published a key conceptual and methodological paper in a seminal collection of essays on literacy in traditional societies under the editorship of Jack Goody in 1968 and important much-cited results appeared in print in 1973.¹³ However in his first five years in the Group Roger was already making highly specific contributions through his strategically important interactions with local historians about which more will be said later in this paper and through the application of large-scale computer-based aggregative analysis and family reconstitution based on the baptisms, marriages and burials in English parish registers between 1537 and the onset of civil registration in 1837. He taught himself to be a computer programmer much

¹³ R. Schofield, 'The measurement of literacy in pre-industrial England', in J. Goody (ed) *Literacy in traditional societies* (Cambridge, 1968), pp. 311-325; R. Schofield, 'Dimensions of illiteracy, 1750-1850' *Explorations in Economic History* 10 (1972-3), pp. 437—454.

aided, by his close working relationship with Ros Davies who had joined the group from the University of Newcastle as a systems analyst very soon after Roger. Ros, with Roger, had developed in the early 1970s a flexible file-handling system which was essential for early computer analysis of the large data sets that were being amassed in Cambridge. It provided a means of inputting data from parish registers as well as other sources in ways that preserved the structure of the original source material thereby avoiding the restrictive requirements of forcing the primary evidence into a fixed format that was straight-jacketing researcher's freedom of movement through adherence to the longstanding image and overbearing influence of the 80 column card. It came to be known as GENDATA and was adopted by a number of historians both in and outside Cambridge as a means of data inputting and analysis long before the commercially available relational databases provided such a facility a decade or more later.¹⁴

While engaged in innovative computer programming and seeking less restrictive forms of data manipulation Roger's principal efforts in the late 1970s were directed toward the project that culminated in the publication in 1981 of *The Population History of England* which he co-authored with Tony Wrigley but with significant inputs from Jim Oeppen and Ron Lee.¹⁵ The decade preceding its publication saw substantial adjustments, in fact major reorientations, to the research programme that had been in place in 1966 when Roger joined the Group. 1966 was a highly significant year since it witnessed the publication of Tony Wrigley's classic article on Colyton introducing the first fruits of the application of the Henry-style family reconstitution to the registers of this East Devon parish, much inspired of course by what had been undertaken previously at INED in Paris.¹⁶ It also saw the publication of a set of methodological essays in the volume edited by Tony Wrigley, *An Introduction to English Historical Demography* that formed for English researchers a guide equivalent to the *Nouveau manuel de dépouillement et d'exploitation de l'état civil ancien* that had appeared the previous year.¹⁷ It seemed at the time that Historical Demography in Cambridge would be pursued by a steady geographical expansion of this technique to as large a number of parishes as possible following the French in that regard, notwithstanding the time-consuming nature of the task to be undertaken on a parish by parish basis.

¹⁴ R Schofield and R. Davies, 'Towards a flexible data input and record management system', *Historical Methods Newsletter* 7 (1974), pp. 115-124.

¹⁵ E.A. Wrigley and R Schofield, *The population history of England, 1541-1871: a reconstruction* (London and Cambridge, Mass., 1981, republished (Cambridge 1988, 1993)

¹⁶ E.A. Wrigley, 'Family limitation in pre-industrial England', *Economic History Review* 19 (1966), pp. 82-109.

¹⁷ M. Fleury and L. Henry, *Nouveau manuel de dépouillement et d'exploitation de l'état civil ancien* (Paris, 1965).

In fact, if one were to judge the stated preferences for research at that date, it would have been on localised family reconstitution-based work since Roger in a paper he delivered to the Royal Historical Society in 1970 and published the following year saw so many of the earlier attempts to derive meaningful demographic processes when pitched at a national level, as ill-founded and generally incapable of proceeding beyond the ambiguities that surrounded simple attempts to measure crude birth and death rates.¹⁸ Hence family reconstitution was seen to be the means by which those evidential lacunae would be overcome and discussions conducted using far more refined elements in the tool kit of formal demography. Roger recognised that the number of parishes with the requisite sources was likely to be quite small and the work time-consuming. He appeared quite restrained when he reflected on the parish-by-parish basis of family reconstitution that ‘It is therefore unlikely that it will be possible to generalise with confidence, whatever results are obtained. But it is already known that there was considerable local variation in the past both in demographic and social and economic arrangements, and in such a situation a study of differences is often more valuable than a summary view’.¹⁹ He went on to suggest that ‘at this stage, therefore a period of careful study of the inter-relationships between economic, social and demographic change in a few selected communities might not come amiss’.²⁰

There followed a number of single and co-authored pieces that show Roger practising what he had preached in his Royal Historical Society lecture. In the same year as that lecture Roger published a paper in *Annales de démographie historique* showing the potential of the unusually detailed eighteenth century listing of the inhabitants of the Bedfordshire village of Cardington to reveal an almost template-like pattern of age-specific mobility as well as gender specific anomalies reflecting the impact of lace-making as a key female by-employment in the area.²¹ He went on to complete the first detailed case study making what was rare use of family-reconstitution derived data to unpick the age- and sex-specific patterns of bubonic plague through a detailed focus on the 1643 plague outbreak in Colyton which killed around 20 per cent of the local population.²² In this work Roger was able to demonstrate that the pattern of deaths by family or household offered important clues to the

¹⁸ R Schofield, ‘Historical demography: some possibilities and limitations’, *Transactions of the Royal Historical Society*, 21 (1971), pp. 119-132.

¹⁹ *Ibid.*, p. 132.

²⁰ *Ibid.*, p. 132.

²¹ R Schofield, ‘Age-specific mobility in an eighteenth-century rural English parish’, *Annales de démographie historique* (1970), pp. 261-274, republished in P. Clark and D. Souden (eds) *Migration and Society in Early Modern England* (London, 1987), pp. 253-264.

²² R. Schofield, ‘Anatomy of an epidemic: Colyton, November 1645 to November 1646’, *The Plague reconsidered*, Local Population Studies supplement (1977), pp. 95-126.

nature of the disease and its mode of transmission. He made what at the time was a novel distinction between the clustering of deaths in families and the variation in the death rate according to family size. In fact the tendency of deaths to cluster in certain households and the lack of any positive correlation with family size allowed him to conclude that there was no airborne mode of transmission but the key determinant was proximity to a nearby vector which was itself randomly distributed over space. He concluded that proximity to the rat and the rat run was the key determinant of a spatially distributed mortality pattern that use of family reconstitution had with much hard labour revealed. At about the same time that he was investigating these issues in England he extended this mode of analysis with similar results to two Swedish cases from the early eighteenth century, revealing notable command of the relevant primary sources²³.

Mortality was also the focus of another paper co-authored with Tony Wrigley that appeared in the late 1970s with its emphasis on infant and child mortality in late Tudor and Stuart England initially from the perspective of 8 parishes that possessed relevant measurements derived from family reconstitution, followed by a narrowing of the focus on the small market town of Ludlow in Shropshire.²⁴ Given the limited size of the sample the two authors were circumspect in pushing their findings very far but those findings were not only significant for those places under observation but they harboured certain features that were to become far more firmly established geographically when requisite evidence became more available. They showed that when set against what was known about early life mortality in Europe the evidence from these parishes revealed relatively favourable life chances by wider pre-industrial standards. There was nonetheless considerable variability from place to place and the small market centres with populations in the size range of 2-3000 carried a significantly enhanced mortality when compared with most rural communities. It was hence evident that the urban penalty became markedly apparent in the lower-most echelons of the urban hierarchy. Nonetheless all places showed a worsening in mortality among children in the age range 1-4 years by the end of the period covered and a tendency of the age patterns of mortality to conform more readily with that to be found in a Princeton Model North life table rather than Model West, which the authors suggested might reflect increased exposure to new kind of infectious diseases among those who had passed the age of weaning and were no

²³ R. Schofield, 'Microdemography and epidemic mortality; two case studies', in J. Sundin and E. Söderlund (eds), *Time, space and man* (Stockholm, 1979), pp. 53-67.

²⁴ R Schofield and E.A. Wrigley 'Infant and child mortality in England in the late Tudor and early Stuart period', in C. Webster (ed) *Health, medicine and mortality in the sixteenth century* (Cambridge 1979), pp. 62-95.

longer afforded the protection that was available to those still fed at their mother's breast. The focus on the Ludlow register was particularly effective in showing how suggestive was a division of deaths into those occurring to infants, whose mortality could be measured using both the baptism and the burial register; 'children', identified as 'X, son or daughter of Y' and deemed to be largely under age 10; and 'adults'. Time series of deaths in the three categories showed that mortality surges when they occurred did so in ways that differed greatly in their impact across these age groups. Furthermore it was also shown that infant death patterns by season closely mirrored the seasonality of births but among young children the most hazardous months were concentrated in summer when this group having been weaned were particularly vulnerable to the higher temperatures and infections from contaminated foods. This work had opened up considerable possibilities for larger scale analysis using regional samples, although surprisingly it is an approach that has still not yielded the investment of research time for more extensive geographical study that it surely deserved.

Family reconstitution and variant forms of nominative linkage were certainly in pole position as far as concerted approaches to reconstructing demographic processes were concerned in the early 1970s. A seminal PhD was completed by David Levine under Roger's supervision using this method with the registers of two Leicestershire communities to test arguments that had emerged about the demographic behaviour of communities heavily engaged in proto-industrial work.²⁵ David Levine went on to collaborate with Keith Wrightson, another Cambridge Group graduate student, in what emerged as a classic paradigm shifting study blending together evidence from a family reconstitution with that for the economic and social history of the central Essex village of Terling in the sixteenth and seventeenth centuries.²⁶ Finlay made unexpected but very real progress in the exploitation of London parish registers for demographic purposes.²⁷ Others like myself, under Roger's doctoral supervision or guidance, were using GENDATA to squeeze demographic and associated economic data from manorial court rolls²⁸.

²⁵ D. Levine, 'The demographic implications of rural industrialisation in two Leicestershire parishes', (unpublished University of Cambridge PhD, 1974).

²⁶ K. Wrightson and D. Levine, *Poverty and Piety in an English village: Terling 1525-1700* (New York, San Francisco and London, 1979).

²⁷ R. Finlay, 'The population of London 1580-1650', (unpublished University of Cambridge PhD, 1977).

²⁸ R. Smith, 'English peasant life-cycles and socio-economic networks. A quantitative geographical case study', (unpublished University of Cambridge PhD, 1974); L.R. Poos, 'Population and resources in two fourteenth-century Essex communities: Great Waltham and High Easter, 1327-89' (unpublished University of Cambridge PhD, 1983) An SSRC-funded project at the University of Birmingham in the late 1970s headed by Professor R.

Consistent with this locality-focused research, a list of English registers that appeared to meet the requirements for family reconstitution was drawn up by the Cambridge Group with the hope that they would create for England a data set equivalent to that which Louis Henry from an entirely different institutional vantage point in Paris was overseeing. Many of these registers were still in parish church vestries or at best in county record offices with exceedingly small numbers in printed editions such as that for Colyton, so an appeal was made for local volunteers to use standard forms on which monthly totals of baptism, burials and marriages were to be recorded from the start of registration until 1837, the year in which civil registration was instituted in England. Volunteers were also asked to make notes concerning the level of detail found in the registers which would indicate the register's suitability for family reconstitution such as whether the relationship of a deceased person to the head of his or her family or whether the name of the mother and or father were recorded in an individual baptism or whether occupations were entered along with the place of residence. The response to this appeal proved to be far greater than initially anticipated and aggregative counts on far more registers than initially identified were forthcoming. So large was the data set made available that it was decided to make the most of these millions of data in a form of what was to be advanced aggregative analysis and the further development of a method of inverse projection that Ron Lee has pioneered in 1974 with a view to constructing vital rates and a host of associated demographic parameters for England as a whole.²⁹ Roger took on the task of checking sample years of the data that had been sent to Cambridge by the volunteers and in effect was very much the court of last resort as far as engagement with the original records in churches and record offices while determining their acceptability. Simultaneously he was deeply engaged in the subsequent analysis of the data that was then being input for computer-based analysis in Cambridge,

This project was further enabled when the Cambridge Group became in 1975 a fully fledged unit of the Social Science Research Council which subsequently because of the anxieties of its political paymasters, in the Thatcher government, changed its name to the Economic and Social Research Council. It retained this research unit status for another 25 years. As a result of this significantly enhanced financial resourcing of the research in 1975 the Cambridge

Hilton used GENDATA in the analysis of the Suffolk manor of Lakenheath and the Staffordshire manor of Alrewas. See J. Williamson, 'On the use of the computer in historical studies: Demographic, social and economic history from medieval English court rolls', in A Gilmour-Bryson (ed) *Computer Applications to Historical Studies* (Kalamazoo, Mich., 1984), pp. 51-61.

²⁹ R.D. Lee, 'Estimating series of vital rates and age structure from baptisms and burials: a new technique, with applications to pre-industrial England', *Population Studies* 28 (1974), pp. 405-512,

Group moved from its rather cramped quarters in Silver Street to offices in Trumpington Street in which it was also possible to have a free-standing library and seminar room in which morning coffee and afternoon tea became occasions for discussion of research progress and many other matters that engaged the interest of the staff, a growing number of postgraduates and the host of academic and many international visitors who were now welcomed in remarkably large numbers. A regular seminar programme began and I have very clear memories of Roger's invariably illuminating contributions that regularly served to remove any academic fog in which the discussion might have become shrouded. Roger was certainly a key force in facilitating the almost laboratory-based atmosphere of collective research endeavour that came to pervade the daily routine in the new offices. By 1975 Roger had joined Tony and Peter as one of the three directors and eventually became the sole director in the matter of day-to-day management and in the employ of the SSRC when Tony Wrigley who had resigned his position as a lecturer in the Geography department eventually moved in 1979 to a chair at the London School of Economics. Peter Laslett continued, until his retirement in 1983, to hold his Readership in Politics and the History of Social Structure as well as his fellowship of Trinity College where he would work most mornings before spending afternoons and early evenings in the Group.

In becoming a unit of the SSRC in 1975, a firmer basis for the Cambridge Group's funding was indubitably a factor enabling a greater degree of time to be invested in the collection, assessment and refinement of the data that were accumulating in Cambridge in 1975. The result was a very large book of nearly 800 pages, over 150 pages of which were devoted to assessing and correcting the data. The scale of this attention to issues raised by the source material may not have been to the taste of many readers who wished to gain rapid access to the key findings but it was an inevitable reaction on the part of Roger and Tony to the realisation that much research council funding had been invested in this project and it was therefore essential that the research underpinning this project could be assessed to the fullest extent possible in much the same way that a laboratory experiment could be replicated by many others to determine whether when subject to repeated analysis the same result would be forthcoming.³⁰ Further as a result of the heavy dependence on the records of the Anglican church, as opposed to a system of civil registration underpinned by parliamentary statute, the parish registers were a source that had to be subject to very considerable scrutiny regarding

³⁰ R Schofield, 'Through a glass darkly: the population history of England as an experiment in history', *Journal of Inter-disciplinary history*, 15 (1985), pp. 571-593 reprinted in R.I. Rotberg and T.K. Tabb (eds) *Population and Economy: Population and History from the Traditional to the Modern World* (Cambridge, 1986), pp. 11-34.

their completeness, particularly as a result of the significant growth in nonconformity over the period considered and their inbuilt biases flowing from the fact that the 404 parishes eventually selected for the level of their completeness did not in any sense constitute a random sample but were in effect the ‘gift’ of local volunteers who collected them. Given Roger’s earlier training within the Elton school, we would expect nothing less than this care and attention given to source criticism and selection bias which would eventually make up a quarter of the book and a far greater proportion, if appendices are excluded from the total page count.

There is not space in the current discussion to give the necessary attention to this work that it deserves but there is no doubt that the publication in 1981 of the *The Population History of England 1541-1871: A reconstruction* was the most significant moment in Roger’s academic career. There were some sections that can certainly be attributed to Roger and Roger alone. None perhaps was equalled in its importance in its contribution to the book’s central argument that nuptiality and hence the gross reproduction rate was more responsive to the economic context in early modern England than was mortality and hence in the round was the prime force in driving the intrinsic demographic growth rate. In chapter 7 in a key section on ‘the determinants of the intrinsic growth rate’ Roger adapts three key formulae relating to the characteristic of a stable population, as originally set out by Ansley Coale, to create a graphical device plotting simultaneously, GRR, the probability of surviving to the mean age of maternity and life expectation at birth to generate an array of diagonals representing the intrinsic growth rate.³¹ Any combination of the GRR and $p(m)$ can be plotted as a point such that any vertical movement on the graph represents a change in fertility and any horizontal movement a change in mortality. Since the two axes are isometric with respect to the intrinsic growth rate the relative scale of the movement in the two directions will show the relative importance of contributions made by changes in fertility and mortality to any change in the rate. In two figures, 7.9 and 7.12 (See Figures 1 and 2), the essentials of English demographic history are brilliantly portrayed and show unequivocally that the lion share of movement from 1551 to 1861 was on the vertical axes represented by the GRR. When similar plots were made of the available data for France and Sweden very different types of demographic ‘terrains’ were seen to apply in each of the three cases but England stands out at once as having a regime in which nuptiality movements reigned supreme. Roger had created a demographic device that would be much used thereafter, but its roots were so firmly

³¹ Wrigley and Schofield, *The population history of England*, pp. 236-248.

grounded in the resolution of a key issue that had loomed largest of all in a longstanding debate over the course of demographic change in the first industrial nation.³² The book had also brought Malthus' preventive check into centre stage as a framework within which to assess demographic change in early modern England and this resurgence of interest saw Roger taking a leading position in co-organising and co-editing the proceedings of a key international meeting on Malthusian theory and its relevance to contemporary demographic argument that also coincided with the 150th anniversary of Malthus' death.³³

Roger made other key contributions to *The Population History of England* in chapter 8 regarding analysis of seasonal patterns and the short term movements of baptisms, marriages and deaths in relation to each other and to real wages which offered a rather more user friendly approach to these issues than that which Ron Lee adopted in a more formally econometric fashion that appeared as chapter 9 in that volume.³⁴ A much cited appendix of almost 50 pages that he contributed dealt with crisis mortality and reveals fundamental geographies to these episodes but major changes over time in the susceptibility of the set of 404 parishes to these kinds of demographic shocks and their causes.³⁵ Roger's influence is also very clear in the concluding chapter 11 when pre-industrial populations are considered in modelling terms, starting with systems in which in a static economy of fixed niches mortality changes could be seen to drive marriages and hence fertility so as to maintain demographic stationarity.³⁶ In effect this took the form of a classic homeostatic or negative feedback system which was further embellished through considerations of the impact of exogenous shocks as well as shifts that engendered positive rather than negative feedback in the relations between demographic and economic parameters. The seeds of this approach are to be found in a paper that Roger had published 5 years earlier in an essay entitled 'The relationship

³² Roger's innovative contribution was recognised by his election to a Fellowship of The Royal Statistical Society in 1987.

³³ The papers were subsequently published as D. Coleman and R. Schofield (eds) *The State of Population Theory: Forward from Malthus* (Oxford, 1986). Roger's input is readily apparent in the introduction to that volume.

³⁴ Wrigley and Schofield, *The Population History of England*, pp. 284-354. Roger took a number of opportunities to refute the role played by nutrition in driving English mortality change and population growth that had emerged very forcefully through such works as T. McKeown, *The Modern Rise of Population* (London, 1976), in various publications. A particularly good example is to be found in R. Schofield 'Population Growth in the century after 1750: the role of mortality decline' in T. Bengtsson, G. Fridlitzius and R. Olfsson (eds) *Pre-industrial population change: The mortality decline and short-term population movements*, (Stockholm, 1984), pp. 17-40.

³⁵ Wrigley and Schofield, *The Population History of England*, pp. 645-693.

³⁶ *Ibid.*, pp. 457-466.

between demographic structure and environment in pre-industrial western Europe'.³⁷ In this essay he used 'box and arrow diagrams' to both identify key interrelationships along with a striking elegance of expression to convert these ostensibly simple diagrammatic devices into particularly powerful concepts. There is no better example of these two skills in Roger's work than the essay that he wrote to conclude a volume that he had co-edited with John Walter appearing in 1989, the year following his election to a fellowship of the British Academy, as *Famine, disease and the social order in early modern society*.³⁸ The collection was dedicated to Roger's great friend Andrew Appleby who had turned his back on a relatively well rewarded career in a significant family business and in a sadly short career before his sudden premature death made a huge impact on thinking about issues to do with subsistence crises, their periodicities and geographies in early modern England. It is clear that Andrew Appleby was much missed by Roger whose own ventures into this area reveal great empathy with ideas that Andrew had formulated and evident in the issues addressed in a long introductory essay that the editors prepared.³⁹ Roger's own essay I believe more than any other that he wrote captures so much of what he had come to understand about the nature of English society and demography in the early modern period and in many respects I like to think captures the interpretational essentials of what the Cambridge Group was then managing to achieve at what many would see as its highest reputational point internationally. The essay begins by acknowledging the fact that historical demography had reached over the course of the previous 20 years a level of considerable technical abstraction but that there were significant lacunae in understanding the parameters that accounted for success or failure in the ways that populations retained a balance with the economic space that they inhabited or enabled genuine positive feedback in those interrelationships. The essay does not engage in the presentation of new or sophisticated statistical analysis of pre-existing data. What it does do is to reflect in ways that display a distinctive combination of conceptual clarity along with a remarkable command of key aspects of England's early modern society, polity and economy that Roger viewed as essential for understanding some central features of the demography. These aspects are primarily viewed within the context of explaining how the

³⁷ R. Schofield, 'The relationship between demographic structure and environment in pre-industrial Western Europe', in W. Conze (ed) *Sozialgeschichte der Familie in der Neuzeit Europas* (Stuttgart, 1976), pp. 147-160, much inspired by a neglected scholar whose work Roger first brought to the attention of the Anglophone world. See G. Mackenroth, *Bevölkerungslehre* (Berlin, 1953)

³⁸ R. Schofield, 'Family structure, demographic behaviour and economic growth', in J. Walter and R. Schofield (eds) *Famine disease and the social order in early modern society* (Cambridge, 1989), pp. 279-304.

³⁹ J. Walter and R. Schofield, 'Famine, disease and crisis mortality in early modern society', in Walter and Schofield (eds), *Famine, disease and the social order*, pp. 1-73.

preventive check was deployed by the English population between 1550 and 1850. Roger had been greatly impressed by criticisms of how the data bearing on nuptiality had been related to the estimates of the GRR in *The Population History of England*. In fact Henry and Blanchet at INED in Paris and Weir in Stamford had shown that the marriage rate changes presented in that book were incompatible with the calculated changes in the GRR.⁴⁰ Weir had devised an ingenious way of deriving more plausible measures both of changes in marriage age and proportions ever married that would accurately generate GRR changes that had been derived from the baptismal data from 404 parishes. Roger had in a paper published a few years earlier further refined Weir's method and confirmed his original suspicions and made chronologically more precise a remarkable feature of marriage behaviour that when plotted graphically exhibited a major shift among those born after c. 1700.⁴¹ Changes in the marriage rate before 1700 were largely the product of shifts in the proportions ever-marrying but after that date marriage age changes assume the main determinative role. (See Figure 3) What Roger proceeds to offer us is an object lesson in how to think in remarkably flexible ways about the contexts within which the preventive check might vary although located unambiguously within the wider geographical boundaries of Hajnal's 'European Marriage Pattern'.⁴² While accepting that a relatively late age of female first marriage (above c. 22 years) and on average around 10 per cent or more never marrying by age 45 or 50 were important criteria that might set Europe apart from most other parts of the world, Roger then proceeds to show how considerable the marital variations might be between certain types of economy and polity across this area of generally low-intensity female marriage. In this approach his focus is not on cross-sectional measurements of marital age and incidence but on nuptiality's dynamic qualities through time. He reminds his reader that Malthus although often misrepresented by those with an overenthusiastic tendency to work with a 'tractable theoretical model of the widest possible generality' was at pains to stress the importance of political power structures and institutions in his understanding of the ways in which societies reached an accommodation between the processes of economic and demographic change.⁴³ Roger goes further to stress the significance of those institutions determining the ownership of wealth and the allocation of rewards to labour and of particular significance the place of

⁴⁰ L. Henry and D. Blancher, 'La population de l'Angleterre de 1541 à 1871', *Population* 38 (1983), pp. 781-826; D. Weir, 'Rather never than late: celibacy and age at marriage in English cohort fertility', *Journal of Family History* 9 (1984), pp. 340-54.

⁴¹ R. Schofield, 'English marriage patterns revisited', *Journal of Family History* 10 (1985), pp. 2-20.

⁴² J. Hajnal, 'European marriage patterns in perspective', in D.V. Glass and D. E.C. Eversley (eds) *Population in History: Essays in Historical Demography* (London, 1965), pp. 101-143.

⁴³ Schofield, 'Family structure, demographic behaviour', p. 279.

value systems affecting inter-personal relations within the family and the wider collectivity. He stresses the contrast between those systems which in broad-brush stroke terms he defines as peasant or 'niche-based' in that their economy is overwhelmingly agrarian and relatively undifferentiated when economic activity is largely a family affair and particularly where labour is applied to land or capital under the family's management or control. Access to the means of production is principally through inheritance, kinship is significant in marriage and property devolution, support for the elderly is principally a matter for the family and geographical mobility is somewhat restricted and actually disadvantageous. At another extreme there were more differentiated pre-industrial (although still organic using Wrigley's terminology)⁴⁴ in which a significant section of the population sold its labour which was directed to the use of capital over which it had no ownership or control. While inheritance was present as a means by which resources moved between individuals, market transactions were far more prominent. Children in the majority of cases left their household and indeed their community of birth and choose their own marriage partners. Geographical mobility was relatively high and viewed as likely to be beneficial for the migrant. Many children would not have been in a position to provide elder care which tended to form a significant intergenerational resource redistribution, the responsibility for which fell upon the collectivity. Hence Roger's characterisation of such societies as 'individualist-collectivist'.

A society operating according to the peasant model is likely to have displayed a form of homeostasis in which marriages were strongly linked to deaths via inheritance such that death and marriage rates would be chronologically tightly aligned such as in early modern France. (See Figure 4) No such association would show through strongly in the individualist-collectivist society which Roger feels is exemplified by the English case. He offers particular explanations for why after 1700 crude marriage rates will have been driven largely by a lowering of marriage ages in an economy with very large labour demands outside of agriculture. In addition he is alert to what might have been factors encouraging earlier entry into marriage as certain economic roles changed or vanished; the development of cottage industries serving distant markets; farm service for males and to a lesser extent for females giving way to male labour hired on farms by the day; women's economic opportunities were reduced in the male dominated arable farming regions along with de-industrialisation in the older textile-producing areas helping to bring about steady removal of spinning as a means of female employment which was given a final death blow by mechanisation of the process and

⁴⁴ E.A. Wrigley, *Energy and the Industrial Revolution*, (Cambridge, 2019) pp.7-25

its eventual concentration on the coalfields. Roger is keen (like Malthus) to see the collectivity's increasing tendency to inject a form of welfare funding into wage labourer households headed by married males with dependent children under the late eighteenth and early nineteenth century poor law as another encouragement to early marriage.

A particularly striking conclusion is reached that the greater the degree of connections between demographic and economic behaviour that were mediated through a diffuse and complex network of market relations along with substantial welfare injected into household economies, the larger the possibility for confounding and offsetting influences to operate which in combination served to disable to a greater or lesser degree the operation of the preventive check which may have been far more predictable in the manner of its operation in the peasant niche-based predominantly agrarian economy. While these arguments can now be subject to some qualifications in the light of work completed since 1989 they still remain central to our wider attempts to explain historic change.⁴⁵ Regrettably reflections of this kind have become fewer and further between among the far smaller community of practising historical demographers who now apply this craft more often than not on data from the nineteenth and early twentieth centuries, consequently lacking the historic breath that Roger brought to these issues. The current somewhat fashionable debate pursued by economic historians and a sizeable corps of economists over the extent to which the European Marriage Pattern was conducive to economic growth looks particularly wooden when viewed against the subtlety of much that is contained in the arguments that led Roger to offer an almost subversive view of that marriage regime. I remain surprised by the absence of this paper in the references cited by the participants in that debate and saddened by the knowledge that Roger was never able to take his characteristic intellectual scalpel to much of this recent literature⁴⁶.

Very soon after the publication of *Famine, disease and the social order* Roger suffered the first of the strokes that were to usher in an extended period of almost 30 years in which his

⁴⁵ E.A. Wrigley and R. Smith, 'Malthus and the poor Law', *The Historical Journal* 63 (2020) Special Issue 1 'Malthusian Moments', pp. 33-62 and R. Smith, 'Social security as a developmental institution? The relative efficacy of poor relief provisions under the English Old Poor Law' in C.A. Bayly, V. Rao, S. Szreter and M. Woolcock (eds) *History, Historians and Development Policy: A necessary dialogue* (Manchester, 2011), pp. 75-102.

⁴⁶ This comment applies to leading participants in this debate. See for example: T. De Moor and J.L. van Zanden, 'Girlpower, The European Marriage Pattern (EMP) and labour markets in the North Sea Region in the Late Medieval and Early Modern Period', *Economic History Review* 63 (2010), pp. 1-33; T. Dennison and S. Ogilvie 'Does the European marriage pattern explain economic growth?' *Journal of Economic History* 74 (2014), pp. 651-693; J. van Zanden, T de Moor and S. Carmichael, *Capital Women: The European Marriage pattern, Female Empowerment and Economic Development in Western Europe, 1300-1800* (Oxford, 2019).

health, eyesight and mobility were severely compromised. Initially he was able to meet certain of his obligations as both member and chair of the Historical Demography Committee of the International Union for the Scientific Study of Population which gave rise to significant seminars and publications organised and edited collaboratively with David Reher but never again would he prepare articles with the intellectual sparkle and economy of argument that his work, particularly in the 1980s, had shown him to be the consummate master of his craft.⁴⁷ His incapacity inevitably did set back the publication of the Cambridge Group's next major publication based on the 26-parish set of family reconstitutions that eventually appeared in 1997.⁴⁸ It is difficult not to suppose that had his powers been retained in the 1990s that this volume would have appeared sooner and benefitted from his intellectual inputs. Roger's work in the design of the reconstitution-parish data set and trailers for the long-awaited results appearing in the 1970s and 1980s indicates how vital had been his foundational contribution to the culmination of the family reconstitution project.⁴⁹ However the only subject in *English Population History From Family Reconstitution 1580-1837* that was clearly the product of original research by Roger concerned his very deft treatment of maternal mortality, the principal findings for which had appeared earlier in his essay in the *festschrift* appearing on the occasion of Peter Laslett's retirement from his university post in Cambridge.⁵⁰ Nonetheless that work still shines through as a result of Roger's use of primary research on Swedish population data to substitute for evidence that could be used as a substitute for key missing data in the English evidence. In the case of live births, English registers omitted precisely those stillbirths in which the mother's life was most at risk. It was therefore necessary to find data that could be used to correct for this omission. Swedish evidence does contain this information and it was fortuitous perhaps that Roger had become so accomplished in its usage and understanding while working from the position that English and Swedish mortality regimes were very similar in the eighteenth century and that there was rough parity in maternal mortality levels in both countries in the nineteenth century data.

⁴⁷ R. Schofield, D. Reher and A. Bideau (eds) *The decline of mortality in Europe* (Oxford, 1991) and R. Schofield and D. Reher (eds) *Old and new methods in historical demography* (Oxford, 1993)

⁴⁸ E.A. Wrigley, R.S. Davies, J. Oeppen and R. Schofield, *English population history from family reconstitution* (Cambridge, 1997).

⁴⁹ For example, R. Schofield and E.A. Wrigley, 'Remarriage intervals and the effect of marriage order on fertility' in J Dupaquier et al (eds) *Marriage and remarriage in past populations* (London, 1981), pp. 211-227; E. A. Wrigley and R. Schofield, 'English population history from family reconstitution: some summary results', *Population Studies* 37 (1983), pp. 157-184.

⁵⁰ R. Schofield, 'Did the Mothers Really Die? Three Centuries of Maternal Mortality in 'The World we Have Lost'', in L. Bonfield, R. Smith and K. Wrightson (eds) *The World We have Gained: Histories of Population and Social Structure* (Oxford, 1986), pp. 231-260 which forms the basis of E.A. Wrigley et al, *English population history from family reconstitution*, pp. 307-321.

Hence Roger used evidence from Swedish population registers to supply this information to provide corrected and significantly enhanced maternal mortality rates from the English registers. A striking improvement of maternal mortality along with that of perinatal mortality was revealed for the century or so after 1750 and has proved to be a very significant development in our understanding of mortality trends more generally in that period. This work again shows the inherent cleverness of Roger's approach and his impressive command of historical demographic data from another European area. Perhaps it was no accident that Roger's very last publication appeared in the *Economic History Review* in 2015, exactly 50 years after his first in that journal and was concerned with measuring and determining the mode of transmission of an outbreak of plague in an early eighteenth century Swedish community⁵¹.

* * *

I come finally to an entirely different strand in Roger's career. It is entirely fitting that the Local Population Studies Society should be hosting this memorial meeting devoted to Roger Schofield since notwithstanding his lofty international standing in the fields of historical demography he devoted nearly 30 years of his career to serving that society, its members and the many authors who published in *Local Population Studies*. The durability of that association is ample testimony both to Roger's commitment, particularly in the early days of that journal's existence, to the amateur local population historian's role in this field and his genuine belief in the value of the localised case study as an essential element in the historian's tool kit and evidence base. Roger appears to have been involved with this initiative from its very beginning since having joined the Cambridge Group in 1966 he was an organiser of a summer school at Madingley Hall in August 1967 which brought together a good number of people who were then at work on their own or in groups but who had all been in contact with the Cambridge Group in part through the appeals for evidence that had already been made via articles in the *Local Historian*, circular letters to local history societies and in some cases through broadcasts on The Third Programme by Peter Laslett and Tony Wrigley subsequently appearing as articles in *The Listener*. It emerged that while as individuals those attending the Madingley meeting were almost all very well known to the Group, they were not in communication with each other so that there was a desire to develop some sort of contact enabling common problems and new ideas to be discussed as well as

⁵¹ R. Schofield, 'The last visitation of the plague in Sweden: the case of Bräkne Hoby in 1710-1711', *Economic History Review* 69 (2015), pp. 600-626.

aiding the techniques used in the field to be explained and examined. *Local Population Studies Magazine and Newsletter* appeared in the autumn of 1968 founded with a very clear commitment to rectifying the shortcomings perceived by those attending the Madingley meeting of the previous year. The editors were David Avery, Colin Barham, Christopher Charlton and representing the Cambridge Group, Roger Schofield. Roger actually outdistanced the whole of that board in his editorial longevity, remaining as chair of the board until retirement in the autumn of 1997.

It is very clear that Roger's presence on the board indicated that this publishing initiative was to have the support and significant input from the Cambridge Group. Furthermore it was conceived as a two-way relationship since in a statement of which Roger was co-signatory with Tony Wrigley and Peter Laslett there was a pledge to:

'... contribute to the newsletter by writing progress reports of our research and by offering advice on questions of technique. We shall learn from the newsletter by reading the reports of others' research. We are very aware that by concentrating our resources on large and technical subjects we shall effectively deny ourselves the opportunity of studying in detail the links between population and local history. We believe that local studies are vital to a proper understanding of the relationship between population, social and economic history, and we look forward to learning much from the contributions of local historians.⁵²

Roger's own work as a historical demographer previously discussed exemplifies the views expressed in the above statement. His particular contribution specifically through the role he performed with *Local Population Studies* was to ensure that local case-study based research should, to use a distinction famously drawn by Michael Postan, incline more often than not towards the 'microcosmic', rather than 'microscopic' in its significance.⁵³ *Local Population Studies* under this editorial guidance through the published interchanges and comparisons ensured that local research never turned into a laborious accumulation of minutiae for one place with no regard to its relevance to anywhere else. In the earliest decade of that journal's existence Roger was frequently commenting on miscellaneous pieces of information, responding to letters about previously published articles as well as offering guidance in his most uncluttered prose on technical matters regarding such issues as the ambiguity of percentages, aggregative analysis, the definition of 'crises' and the representativeness of

⁵² P. Laslett, R. Schofield and E.A. Wrigley, 'Campop and LPS', *Local Population Studies* 1 (1968), p. 4

⁵³ M.Postan, *Fact and relevance: Essays on Historical Method* (Cambridge, 1971), pp. 20-21.

family reconstitution.⁵⁴ None of these comments have dated in their accuracy or ease of understanding thanks to Roger's clarity of expression. Throughout the 30-year period of Roger's chairmanship the board produced a sequence of reports involving the board members' attendance at meetings with officials from the Office of Population Census and Surveys over access to the manuscript census returns, correspondence with the Registrar General over access to the civil registers. Noteworthy too was the role played by the board on behalf of the Local Population Studies Society in lobbying the synod of the Church of England about proposals to charge what were thought to be exorbitant fees for the consultation of parish registers whether in the care of local incumbents or county archivists with the avowed intention of limiting what was seen as their burgeoning use for historical research. Roger played a central role in all of these discussions. Furthermore, the journal's standing was at an early date enhanced when it was agreed that it should go to every student then enrolled on the famous Open University course D301 under Michael Drake's excellent oversight.

The character of *Local Population Studies* and as a result the nature of the link between the Cambridge Group and its readers did change as time passed. It was already by the late 1970s noteworthy that the Cambridge Group in its regular reports of which Roger was consistently a co-author was finding it necessary to explain the complexity of the issues surrounding the conversion of the aggregative returns from the 404 parishes selected from those collected by the local volunteers.⁵⁵ Those volunteers had already caught the attention of Louis Henry who had termed them '*le secret weapon anglais*' to reflect their strategically central role in the collection of data that was to form the basis of *The Population History of England*.⁵⁶ There was reference to the plan to make these returns available as a data set free for all, so that they would be usable by local historians for local and regional analysis.⁵⁷ In the event these were not made available until the year after Roger retired from the board when he produced them

⁵⁴ R. Schofield, 'Problems in the use of percentages', *Local Population Studies* 1 (1968), pp. 38-39; R. Schofield, 'Some notes on aggregative analysis in a small parish', *Local Population Studies* 5 (1970), pp. 9-17; R. Schofield, 'The representativeness of family reconstitution', *Local Population Studies* 8 (1972), pp. 13-17; R. Schofield, '"Crisis" mortality', *Local Population Studies* 9 (1972), pp. 10-22.

⁵⁵ News from the Cambridge Group for the History of Population and Social Structure', *Local Population Studies* 21 (1978), pp. 9-10.

⁵⁶ When Louis Henry was shown the results of local students of population in England assembled at the Cambridge Group exclaimed 'Ah! c'est le secret weapon Anglais. Cela ne peut pas exister en France, 'News from the Cambridge Group for the History of Population and Social Structure', *Local Population Studies* 19 (1977), p. 9.

⁵⁷ 'News from the Cambridge Group for the History of Population and Social Structure', *Local Population Studies* 32 (1984), pp. 8-10.

with an accompanying CD-Rom as a *Local Population Studies* supplement.⁵⁸ In fact there must be some irony in the fact that the data collected by the local historians were ultimately to be used largely in the creation of a national aggregate, the study of which was unable to give much attention to regional analysis with the noteworthy exception of those parts of the book when Roger discusses geographical variations in susceptibility to crisis mortality, in the seasonality of those crises and in the seasonality of marriages. Nonetheless Roger's and Tony Wrigley's debt to the 230 historians who had initially collected the data for that mammoth work was clearly evident in the fact that the resulting book was dedicated to them.⁵⁹ There were no subsequent studies with roots in Cambridge that would emulate those which has been produced in the classic era of historical demography by such French historians as Pierre Goubert on the Beauvais or by Jacques Dupâquier in the Basin Parisien, notwithstanding the fact that those scholars were not in any sense local historians.⁶⁰ In these *lacunae* we have an intriguing contrast between the approaches that emerged in the two countries which internationally led the field over the first quarter century of its existence as a recognisable historical sub-discipline.⁶¹ It is symptomatic of the Cambridge Group's preference for the aggregation of data into large 'national' samples that the 26 parishes that formed basis of *English Population History from Family Reconstitution*, with the exception of an investigation of parish-by-parish variations in infant and child mortality and ages at first marriages, were also made into one large composite in part so that comparison could be made with the data set used in *The Population History of England*. It is unfortunate that Roger's deteriorated health after 1990 was such that he was unable ever again either by his own example, by that of his students or through *Local Population Studies* to generate a clearer dialectic between the local and the national in the Cambridge Group's contribution to parish-register based historical demography.

What remains evident in assessing Roger's career across its various phases and the diversity of its approaches is that in a couple of decades from the late 1960s to the late 1980s he made some of the most seminal contributions to many aspects of English and comparative

⁵⁸ R. Schofield, *Parish Register Aggregative Analysis. A Local Population Studies* supplement (Colchester, 1996).

⁵⁹ 'News from the Cambridge Group for the History of Population and Social Structure', *Local Population Studies* 25 (1980), p. 10.

⁶⁰ P Goubert, *Beauvais et le Beauvaisis de 1600 à 1730* 2 vols. (Paris, 1960); J. Dupâquier, *La population rurale du Basin parisien à l'époque de Louis XIV* (Paris, 1979).

⁶¹ R. Smith, 'Geographers, *Annalists* Historians and the roots and divergent pathways of English and French Historical Demography', in A. Gonzalez Encisco (ed) *Histories and historiographies: Post-war European pathways* (Pamplona, 2004), pp. 167-186.; R. Smith, 'Periods, structures and regimes in early modern demographic systems', *History Workshop Journal* Spring (2007), pp. 202-218.

European population history, empirically, conceptually and methodologically. Equally insightful were his contributions to fields such as taxation and the Tudor fiscal state, to the launching of a systematic historical study of literacy, as well genuine innovations that he made in the computer-based sorting and analysis of historical evidence. However grand was his reputation whether in the UK, Europe or particularly in the United States, he never lost touch while his health was good and he was research active with those who were the stalwart members of the society which is honouring him today. Furthermore, a striking indication of his empathy towards that section of the research community is evident in his covenanted donation to this society in 1987 which ensures that through this legacy he will continue to provide assistance to local historians via the Roger Schofield Local Population Studies Research Fund and he will certainly not be forgotten.

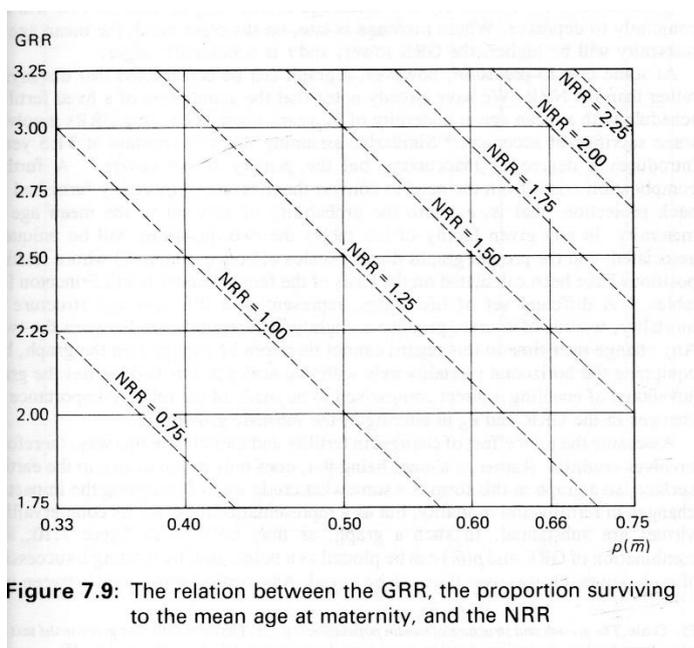


Figure 1

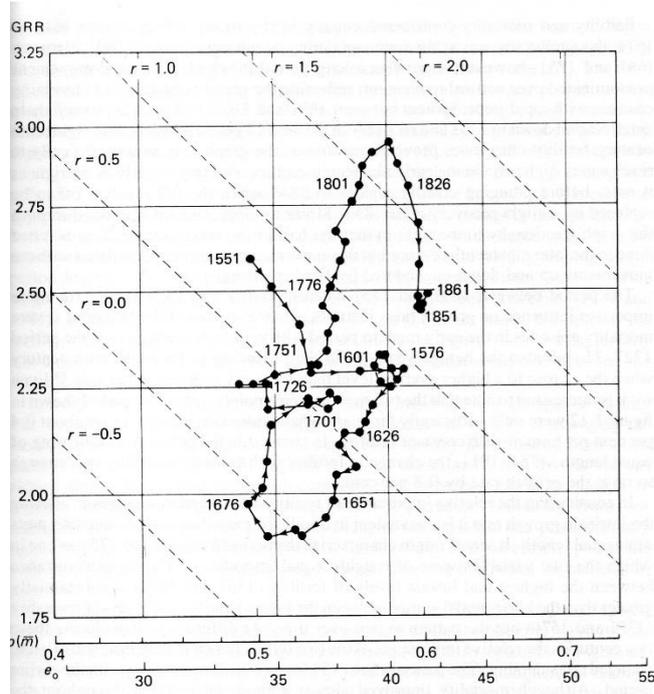


Figure 7.12: The combined effect of English fertility and mortality changes in determining intrinsic growth rates 1551 – 1861 (5 – point moving averages of quinquennial data)

Figure 2

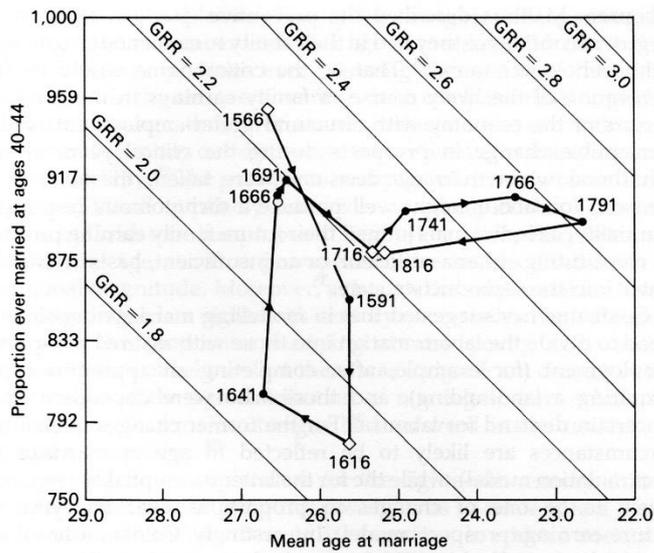


Figure 8.8 Celibacy and age at marriage in English cohort fertility

Figure 3

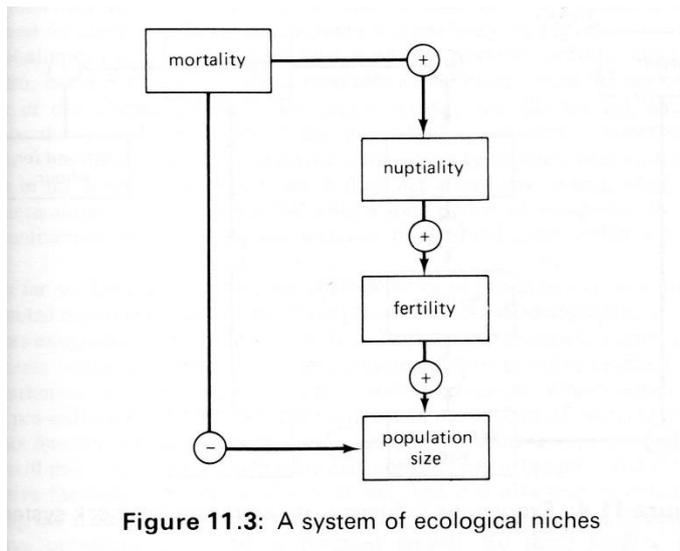


Figure 11.3: A system of ecological niches

Figure 4