



A Pauper Dead-House: The Expansion of the Cambridge Anatomical Teaching School under the late-Victorian Poor Law, 1870–1914

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Introduction

In May 1901 an article appeared in the *Yarmouth Advertiser and Gazette* entitled ‘Alleged Traffic in Pauper Corpses—How the Medical Schools are Supplied—The Shadow of a Scandal’.¹ It recounted that, although a pauper named Frank Hyde aged fifty had died in Yarmouth workhouse on 11 April 1901, his body was missing from the local cemetery. The case caused a public outcry because the workhouse death register stated that Hyde had been “buried by friends” in the parish five days after he had died. An editorial alleged that “the body was sent to Cambridge for dissection” instead and that the workhouse Master's clerk profited 15 shillings from the cadaver's sale. Following continued bad publicity, the visiting committee of Yarmouth Union investigated the allegations. They discovered that between 1880 and 1901 “26 bodies” had been sold for dissection and dismemberment under the terms of the Anatomy Act (1832) to the Cambridge anatomical teaching school situated at Downing College. The Master's clerk staged a false funeral each time a pauper died in his care. He arranged it so that “coffins were buried containing sand or sawdust or other *ingredients* but the body of the person whose name appeared on the outside [emphasis in original]” of each coffin never reached the grave. This was Hyde's fate too. Like many paupers who died in the care of Poor Law authorities in the nineteenth century, Hyde's friends and relatives lacked resources to fund his funeral expenses. Consequently, he underwent the ignominy of a pauper burial, but not in Yarmouth. His body was conveyed on the Great Eastern railway in a “death-box” to Cambridge anatomical teaching school. Following preservation, which took around four months, the cadaver was dissected and dismembered. It was interred eleven months after death in St Benedict's parish graveyard within Mill Road cemetery, Cambridge, on 8 March 1902.² A basic Christian service was conducted by John Lane of the anatomy school before burial in a pauper grave containing a total of six bodies. The plot was unmarked and Frank Hyde disappeared from Poor Law records—the end product of pauperism.

In June 1901 the Poor Law union journal *Councillor and Guardian* reported that Hyde's case had been the subject of an extensive public inquiry, instigated at central government's request.³ The inquiry concluded that “the bodies [from Yarmouth] had been sent to Cambridge without the knowledge of all members” of the board of guardians and the case was “atypical”. This was untrue, despite this reassurance, because after 1832, as Ruth Richardson has shown, the duplicity concerning Hyde's remains was not illegal.⁴

Richardson examined the motivations behind and reactions to the Anatomy Act (1832). The Act was passed during a climate of “violent popular antipathy” towards grave-robbers who supplied bodies for anatomical teaching purposes. Not only was the trade illegal but their work was also indiscriminate, distressing both wealthy and poor families. The 1832 legislation, therefore, had three aims. First, to protect

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respectable families from becoming the victims of grave-robbing for profit. Second, to halt cadaver trafficking, exemplified by the notorious activities of grave-robbers like William Burke and William Hare, who not only resurrected but murdered for profit. Third, to increase anatomical cadaver supplies from legally authorized sources, other than prisons (executed criminals). Ironically, as this article explains, the new legislation exacerbated trafficking activities. Pauper cadaver acquisition now operated through a greater diversity of “official” channels, notably asylums and Poor Law unions. An unauthorized trade was legalized and integrated into a complex welfare framework. The fee-income this generated for asylum and Poor Law officials from covert sales was hidden from public scrutiny to the detriment of the poor. In this way, the Anatomy Act discriminated against the impoverished and vulnerable, ignoring time-honoured death customs.⁵ This action was justified as advancing medical science. In reality, it facilitated more continuity than discontinuity in cadaver acquisition practices before and after the Anatomy Act.

The demography, geography and scale of these “official” trafficking activities in England has been ignored. This article redresses that historiographical neglect by examining as a case-study the Cambridge university anatomical teaching school, where Hyde's body was sent from Great Yarmouth.⁶ Cambridge has been chosen because it expanded to become a regional leader in anatomical training, from approximately 1870 to 1914. Therefore it provides insights into trafficking methods and practices, as well as central–local relations. Paradoxically, given that the focus of Richardson's seminal work was the poor, little subsequent research has been done on pauper cadaver acquisition. This oversight neglects both the cultural reception of anatomy and the degree of duplicity that developed between cadaver agencies, both suppliers and recipients.

This regional approach also attempts to move away from the current emphasis in medical historiography on the professionalization of doctors to the exclusion of their impact on the poor.⁷ In order to write a comprehensive account of medical training, an interdisciplinary approach is needed when examining the cultural reception of anatomy. Specifically, the context of one of the most radical, and neglected, phases of Poor Law history needs to be examined. Dubbed by contemporaries the “crusade against outdoor relief”, central government, between approximately 1870 and 1900, championed an anti-welfare policy that encouraged the sale of cadavers from asylums and workhouses to recover the costs of care in the community.⁸ This retrenchment policy benefited anatomists, shaping their teaching practices in the late-Victorian era.

Michael Sappol has recently begun to examine the close working relationships that developed between American anatomy schools and their suppliers.⁹ His ground-breaking work on the “anatomical acquisition, dissection and representation of bodies” in nineteenth-century America provides British historians with an exemplary new interdisciplinary approach.¹⁰ He shows that, as in the Cambridge study presented here, medical professional identity was underpinned by trafficking in pauper cadavers. Although he studied anatomical material from a wider variety of sources—Native Americans, African Americans, the Irish and poorer immigrants—black markets operating through similar “official” welfare channels flourished. Thus, as Sappol points out, the poor “in life were a drain on the public purse; in death, they would be made to serve the public good”.¹¹ This similarity between British and American anatomical history highlights the need to revise perspectives on the cultural role of anatomy in late-Victorian England in four key ways.

First, we need to examine how the supply and demand for corpses was organized regionally. Data may explain developments in, and the timing of, changes to the university-based anatomical curriculum. Second, given that the poor resented the Anatomy Act of 1832, its application must have been controversial and shaped popular views of medicine. Even though initial reactions to it are documented, its longer-term cultural impact is under-researched at the local level.¹² Studying acquisition activities will allow us to begin to recover the experience of the poor. Third, given regional trends in urbanization, population distribution and death rates, it was likely to be much easier to obtain cadavers in the north and Midlands, than in the south, east or west.¹³ Only statistics collated by central government (predominately Anatomy Inspectorate returns) can be consulted on these supply trends.¹⁴ Acquisition records tend to obscure regional perspectives,

omitting the reality of performance and achievement, which will be redressed here.¹⁵ Finally, the best way to acquire cadavers (as Hyde's story reveals) was to exploit lunatics and the poor. This meant that regional medical schools had to generate and regenerate complex mechanisms of contact and payment with individuals and institutions. This had not been done on such an authorized scale before the Anatomy Act. So a study of acquisition activities can provide insights into the nature of asylum–Poor Law–anatomical relations, providing a regional understanding of how the economic priorities of the supply agencies converged.

To summarize, this article does not claim to recount all aspects of anatomical teaching in the nineteenth century. Instead it aims to provide a starting-point for detailed local study that can be built upon to underpin a greater historical understanding of the regional work of anatomists and their suppliers at a pivotal time in the expansion of medical training, during a radical phase of Poor Law retrenchment in late-Victorian England.

The Cambridge Anatomical Teaching School: A Regional Leader in its Field

The history of anatomical training at Cambridge University is well-rehearsed in a number of recent textbooks.¹⁶ The first anatomical teaching school was established in 1716 on Queens' Lane. From its inception, despite low pupil numbers and a small dissection room, it set out to establish itself as the regional leader in anatomical teaching outside London. It had remarkably advanced procedures because it recruited several distinguished anatomists, notably John Haviland (1814–17), who instituted the first regular course in human anatomy. He was succeeded by William Clark FRS (1817–65), responsible for establishing a museum of comparative anatomy, which was described by contemporaries as “one of the richest in Europe”.¹⁷ Following the passing of the Anatomy Act (1832) a new anatomical building and theatre was built in Downing Street on the site of the former botanic gardens. It was here that anatomy teaching began to expand under leading experts, notably G M Humphry FRS (1866–83) whose *Treatise on the human skeleton* (1858) was considered the classic anatomical textbook of its day. Humphry also founded the *Journal of Anatomy and Physiology* (1867) and was the first President of the Anatomical Society of Great Britain and Ireland (1887). When the internal funding for anatomical research was revised, so that teaching costs were paid from a central university fund, the department began to expand rapidly in the later-Victorian period. This allowed Cambridge to set the research agenda in the anatomical field. Demonstrators in anatomy were appointed in 1866, 1888 and 1903. The university also appointed Alexander Macalister FRS (1883–1919) from Trinity College, Dublin, to the first full-time chair of anatomy at Downing.¹⁸ Following his appointment, a new larger anatomical building was constructed to accommodate increasing pupil numbers—around 198 by 1894. Macalister was a brilliant anatomist with an international scholarly reputation.¹⁹ He was determined to make Cambridge University's anatomy department the best in its field. To achieve this, however, he needed to procure more bodies for dissection. He was also under considerable financial pressure to resolve his lack of research material by the mid-1880s.

Macalister's tenure has been described as the era of “storm and stress” at Downing.²⁰ By the late-Victorian period the College was experiencing serious financial constraints. Its income was derived from estates in Cambridgeshire and Suffolk, but by the 1880s, with the onset of a widespread recession in agriculture, farming rents decreased dramatically. It is estimated that the net income from the College's agricultural properties fell from “£5057 in 1878 to £2333 by 1888”. Since only one-seventh of its income was derived from other sources, such as tuition fees and renting out college rooms, all departments were encouraged to expand fee-paying pupil numbers quickly to make up the deficit.²¹ So the pressure was on Macalister to increase undergraduate numbers, but this was not matched by either an increase in staffing or a more regular supply of bodies for teaching material. Consequently, he had to develop closer links with Poor Law and asylum authorities to overcome his funding and teaching difficulties. In 1899 the *Lancet* confirmed that

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Macalister had succeeded. Its editorial congratulated Cambridge “on the fact that among the medical schools in point of numbers, it heads the list of entries”.²² Fortunately, Macalister's private papers have survived at Downing. They recount both the difficulties he faced and how he overcame them. This rare material gives a unique insight into the working relationships that developed between the anatomy department and their body suppliers.²³

The Cambridge Anatomical School and Its Inner Workings

Alexander Macalister arrived at Downing College, Cambridge, in 1883 to take up the first full-time professorship in anatomy. He brought with him an extensive personal library of anatomical works, which formed the basis of the College's new anatomy library.²⁴ He was also interested in a wide range of medical subjects. From the outset, he cultivated research links with new specialisms within the university, such as pathology and embryology, and with clinicians at Addenbrooke's Hospital, Cambridge. Like his predecessors, he instigated key reforms on taking up his appointment. He found that internal procedures were ad hoc, inefficient and harrowing. For example, notes have survived that detail his concerns about internal anatomical teaching. They outline his priorities:

Teaching of Anatomy

1. Faults of the present system.
2. Wasteful of material, more than half is sheer waste.
3. No check on slack men, or on attendance and work.
4. Desultory and unmethodical teaching.
5. No regular instruction in method.
6. Has the effect of driving men into the hands of coaches.²⁵

Macalister recommended four key reforms. First, all “material” had to be utilized “to the full”. The department could not afford to have high levels of clinical waste when bodies were difficult to procure. Second, he redesigned the system of “practical teaching”. The teaching day was divided into three sessions, 10–12 a.m., 2–4 p.m., and 4–6 p.m. Each student was instructed “to select on what days [and] which of the three periods of the day” he could undertake anatomical training. Students were then divided into groups of eight and either a demonstrator or a professor of anatomy superintended each dissection. Each teacher was “to direct and demonstrate and explain the whole dissection and process”. In November 1888 Macalister also created a new university lectureship in advanced anatomy with a stipend of £50 per annum.²⁶ Third, all bodies were to be dismembered to create a wider range of teaching material. For example, he estimated that “188 students” would require “56 dissecting hands, 40 arms, 32 legs, 32 abdomens and 8 thoraxes”. Students were not permitted to dissect a dismembered body part if they had not attended lectures “for 3–4 available days”. Each student was required to complete “a dissection card” with the “written divisions for each day to be indicated by the Demonstrator”. They then had to record the dissections that had been completed. All body parts were to be labelled and examined on the same table. As a general rule, no dissection could take place without adequate supervision. Fourth, Macalister introduced a register into the dissecting room. All body parts had to be recorded before use. In particular he asked demonstrators and students to make note of any abnormalities and deformities because he was making a special study of anatomical anomalies.²⁷ This was one of his motivations for cultivating closer links with both Poor Law unions and asylums.

Macalister's private correspondence reveals that he went to great lengths to procure more regular body supplies. In March 1884 he compiled a memorandum that was despatched “Private” to all “Poor Law Guardians” in the Midlands.²⁸ It explained why the Cambridge anatomical school needed to acquire more bodies from Poor Law unions. Macalister pointed out that the unions ought to provide anatomical teaching

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material because it was in their interests to do so for medical reasons. Each union was required to “appoint a Registered Medical Officer qualified to practice Medicine and Surgery in the District under its care”, but these doctors could not qualify to practice under the terms of the Medical Act (1858) unless they had undergone two years training in the study of the anatomy of the human body.²⁹ He indicated that by contributing bodies, the unions would be helping to advance medical science:

The school, is however, increasing so as to become one of the largest and most important Medical Schools in the country; and the nos [numbers] of the unclaimed in each rural Union being small, it is necessary to endeavour to extend the area of supply so as to meet the growing demand for the means of acquiring a knowledge of Anatomy. The School pays all the expenses including the coffin, carriage and interment, thereby relieving the Union of certain expenses in each case.³⁰

He reassured guardians that “all bodies are treated with due care and respect, and the bodies are interred in the regular manner in Cambridge cemetery”. A similar letter from G M Humphry (now professor of surgery) confirmed “nothing inhuman, nothing disgusting, nothing unChristian, nothing in any way was wrong with Anatomical dissection”.³¹ Another circular from Macalister to Poor Law unions and asylums in October 1884 added that “the workhouses of London and its suburban districts [*sic*] of Manchester, Liverpool, Birmingham, Newcastle, Gateshead, Sheffield, Hull, Leeds, Cardiff, Bristol, Oxford, Cambridge, Brighton, Reading” and “more than forty other towns send their unclaimed bodies to Medical schools”.³² He confirmed that the anatomy department was also prepared to pay any “incidental” expenses, including the cost of “coffin and carriage to Cambridge in a proper railway funeral wagon at the usual funeral rate (1 shilling per mile) and the undertaker's and cemetery expenses and fees here”. In this way, the “ratepayers are saved all funeral expenses”. Finally, he asserted that anatomical work was above personal considerations. Indeed it was a national priority. If surgeons were unable to practise on the dead during their training, then they would be forced to gain “experience and dexterity from the living”. This raises one of the central questions of this article, namely how convinced were Poor Law and asylum authorities by Macalister's internal reforms, reimbursement scheme and scientific rationale? Who co-operated in selling pauper cadavers, on what scale, and why?

The Demography of Pauper Cadaver Acquisition and its Poor Law Context

Medical historians usually stress the difficulty of adequately assessing the impact of the Anatomy Act (1832) because many Poor Law unions and asylums were reluctant to adopt such an unpopular statute. Guardians of the poor are viewed as often having misgivings about offending local people by implementing the new legislation. Moreover, although the poor could not vote in guardian elections before the passing of the Local Government Act in 1894, they were not without local political influence. Thus, bad publicity was to be avoided at all costs. Yet, as Richardson points out, guardians often skilfully and simultaneously avoided bad publicity and ignored local feelings.³³ To achieve this, it was essential to protect the reputation of any Poor Law union or asylum who decided to co-operate. In the case of Cambridge, the anatomy department took steps to assure their suppliers that they had organized an efficient and covert method of cadaver disposal. The case of Frank Hyde, outlined at the start of this article, reveals how controversial selling cadavers was and the type of unwelcome publicity guardians attracted when burial scandals came to light. Evidently the location of the burial ground was crucial. Ideally it should be situated in the vicinity of the anatomical teaching school and railway station, but not so close as to attract undue attention from onlookers. It would also be convenient if the burial ground were near the workhouse, since it supplied many pauper bodies. Similarly, local undertakers needed to be able to transport the bodies to the site efficiently, so a good road network through the city was essential. Finally, officiating clergy needed to be able to visit the bodies to administer a basic Christian service. This was usually done at night to avoid publicity.

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Like many Victorian cities, Cambridge had a number of overcrowded burial grounds within its centre by the 1830s. Consequently, when fourteen parishes were constituted by order of the Poor Law commissioners on 19 March 1836 to combine into Cambridge Union, a workhouse was built on Mill Road and at the same time a new burial plot was set aside for poorer residents of the city.³⁴ Full graveyards were allocated a plot of land within the new cemetery, which was administered by Cambridge city council. At the same time, wealthier residents could purchase a burial plot at Histon Road cemetery, a private burial ground run by the Cambridge Cemetery Company (a commercial venture), which opened in 1843.³⁵ Since the anatomical teaching school at Downing was located in the vicinity of three local parish churches with full churchyards, St Benedict's, St Edward's and St Mary's the Great, paupers were buried in their allocated plots in Mill Road cemetery. Burial records reveal, however, that most dissected and dismembered cadavers were interred in St Benedict's plot.³⁶ This meant that the Cambridge anatomical teaching school had acquired an ideal burial ground in which to dispose of its teaching material by 1850.³⁷ Burial records show that a total of 2,953 cadavers were interred in Mill Road cemetery by the school between 1855 and 1920 (Figure 1).³⁸ These records reveal four key findings suggesting how economic and political change crucially affected the local supply of bodies, while anatomists, like Macalister, actively sought to acquire specific types of cadaver, notably infants.



Figure 1

The number of pauper cadavers procured by Cambridge anatomical teaching school, 1855–1920.

First, Richardson asserted that the number of bodies gained under the Anatomy Act by regional anatomical schools was much smaller than anticipated.³⁹ She pointed out that the legislation was ill thought-out, inefficient and resented. The figures for Cambridge, however, show different outcomes because they include the context of the late-Victorian Poor Law, which was beyond the scope of Richardson's work. The number of bodies acquired between 1855 and 1870 was small. On average 5 bodies were dissected annually in the 1850s, rising to 10 cadavers in the 1860s. Although teaching groups were smaller, this level of material was inadequate. Average class sizes were of 60 students by 1865. They needed a wider range of dissection material to satisfy the new anatomical training standards of the Medical Act (1858).⁴⁰ This was still a problem in the early 1870s when on average 17 dissections were performed annually. Significantly, however, cadaver numbers increased 100 per cent to 34 annual dissections in 1873–4. This date marks the start of the crusade against outdoor poor relief instigated by the Local Government Board, which benefited anatomists at Cambridge. During one of the most radical phases of nineteenth-century Poor Law history, anatomists were able to negotiate higher cadaver acquisition rates. Poor Law retrenchment enabled anatomists to secure more teaching material, provided they reimbursed asylum and Poor Law agencies for supplying human remains. Fee-income was generated by passing on the costs of preparing, transporting and burying pauper cadavers to anatomists, thereby recovering some of the costs of care in the community. These covert payments were not declared on central government returns and an illicit trade in pauper cadavers developed, which underpinned medical training.

The origins of the Local Government Board campaign began in the recessionary climate of the 1860s. In 1863 and 1864 outdoor relief provision came under a renewed attack following a series of trade slumps and industrial crises in Lancashire and London, which caused poor relief expenditure to rise by around 15 per cent nationally.⁴¹ When the Local Government Board was created in 1871 it made welfare cuts its top priority. Senior civil servants refused to recognize that regional trade problems and a 16 per cent rise in London's population in the decade 1861 to 1871 were responsible for the rise in Poor Law expenditure. Instead they blamed recalcitrant boards of guardians, who administered poor relief on behalf of ratepayers, for giving liberal out-relief allowances that allowed paupers to live outside the workhouse, or charity to unemployed claimants.⁴² A decision was taken to issue a series of three directives to Poor Law unions,

namely the *Goschen Minute* (1869), the *Fleming Circular* (1871) and finally the *Longley Report on outdoor relief* (1873/4).⁴³ Each promoted the efficacy of the workhouse test and stated that guardians should cancel all outdoor relief payments. The Longley strategy was the most radical of the three directives. All outdoor relief was made illegal and Poor Law unions were encouraged to recover welfare costs where possible, including customary burial expenses. The policy gave anatomists an opportunity to generate and regenerate complex mechanisms of contact and payment with Poor Law officials, thereby improving cadaver acquisition rates.

The Longley strategy, or the “crusade campaign” as it became known, was a “brilliant short-run success” in statistical terms. Karel Williams estimates that between 1871 and 1876 the total number of paupers relieved nationally on out-relief orders fell by around 33 per cent, with expenditure decreasing by some £276,000.⁴⁴ Thereafter, numbers stabilized to an average of 542,000 claimants nationally between 1877 and 1892; although it should be noted that regional patterns of relief were often diverse. Nevertheless, between 1871 and 1893 outdoor pauper numbers fell by 338,000 (40 per cent in real terms) despite rising population figures. Yet, as David Thomson points out, Williams does not take account of the changing age composition of the population. The significant point about these out-relief reductions is that, despite the fact that the proportion of elderly persons in the total population of England and Wales was increasing, the number receiving “some form of public assistance” in 1890 “was less than half of what it had been in 1870”.⁴⁵ No attack on provision for the elderly had been tried on such a scale before; this is what makes the crusade campaign a disjunction in Poor Law administration. It meant that those who entered the workhouse were in deep poverty and this gave anatomists a greater opportunity to acquire pauper cadavers. Few poor families with a deceased relative in the workhouse could afford to reclaim their loved ones' remains for burial without customary funeral entitlements, which were cancelled under the Longley strategy. Little regional work has been done on how guardians of the poor achieved annual reductions in their poor relief bills post-1870; but recent investigations have begun to examine the reality of performance and achievement.⁴⁶ Studies reveal that thirty-four urban and seven rural unions were the engine of this new policy because they contained 16 per cent of the total population in England and Wales, and registered less than 30 per cent of paupers in receipt of out-relief funding until 1893. It is worth emphasizing that, although in numerical terms this appears to be a small proportion of the total number of unions, around 6.6 per cent (i.e. 41 out of a total of 622), between 1871 and 1876 most Poor Law unions followed their example. During the crusade campaign the attack on outdoor relief medical orders was especially significant for anatomists.

Traditionally, many guardians of the poor used medical orders to fund a variety of customary relief entitlements. Anne Digby's work on East Anglia, for example, shows that farmers often used medical orders to pay rural workforces unemployment benefits over the winter period.⁴⁷ This kept a pool of labour nearby, available for work in the spring. Another common use of medical orders was the payment of customary funeral entitlements. Generally, as Thomas Laqueur's work has shown, this included conventions such as the washing of the body by a local woman; a woollen shroud to lay the body out in; a coffin made at cost by the local carpenter; a basic funeral service; and burial in the local parish.⁴⁸ Poor people were usually buried in the cheaper northern sections of churchyards, and graves were marked with a wooden cross. When the crusade against outdoor relief began, guardians stopped paying customary funeral payments on medical out-relief. They would lend pauper families funeral expenses but, of course, few would have been able to repay the debt from their makeshift economies. Consequently, in many areas the poor had to accept the ignominy of a pauper funeral. This meant more pauper cadavers were sold for anatomical teaching purposes. The marked increase in pauper cadaver acquisition rates in 1873/4 must be seen in this context.

Second, whilst the number of bodies acquired rose between 1873/4 and 1884 to an average of 44 annually, around 1885/6 the number fell to just 32 cadavers. This coincided with Macalister's new tenure at Downing and was the chief reason that he tried to cultivate closer working relationships with Poor Law unions. The crusade against outdoor relief had by 1885 begun to abate in many regions because of a series of urban trade slumps and the recession in agriculture that followed the growth of overseas competition. Many Poor

Law unions refused to withhold outdoor relief payments when poverty was not the fault of the individual but a national problem. Macalister, therefore, faced an uphill task. He needed more bodies to get his increased pupil numbers trained in anatomy for two years to satisfy new medical regulation procedures under the Medical Register of 1858. A letter that he wrote in 1896 to J Pickering Pick, the anatomy inspector for the provinces, outlines some of the problems:

We have had very many difficulties in carrying on a School of Anatomy in a town with a small population in a thinly peopled centre, but we draw our supply from many and distant sources, as you will see from our certificates...I am sorry to say that the larger East Anglian towns, Norwich, Ipswich and Colchester, have a sentimental objection to send[ing] us any bodies.⁴⁹

The Downing College archive reveals that Macalister's body finding drive was successful, but only after 1885. Within two years the number of bodies he procured increased by almost 100 per cent. In fact, Macalister benefited from a much overlooked and underrated piece of minor Poor Law legislation—the Medical Relief (Disqualification Removal) Act 1885.

The Medical Relief (Disqualification Removal) Act was passed to remove the stigma of Poor Law medical treatment.⁵⁰ When the New Poor Law was enacted in 1834, anyone in receipt of poor relief was disenfranchised. In any event, few poor people could vote in either parliamentary or local elections until the franchise changes of the later nineteenth century. Democratization, notably under the Franchise and Extension Acts (1884–5) commonly known as the Third Reform Act (1884), began to alter the regional political landscape. The Local Government Board conceded that it was unfair to penalize poor people by withholding voting entitlements under the New Poor Law if they had received poor relief only on medical grounds. The Medical Relief (Disqualification Removal) Act, therefore, reinstated poor relief medical claimants' voting powers. In theory, this should have benefited the poor. In reality, it did the reverse.

Guardians of the poor, who believed in a policy of “no representation without rates” (that is a person who did not pay rates should not be able to vote) resented the medical policy change. In particular, those forty-one Poor Law unions that championed the crusade campaign were determined to ignore the new law. Many, such as the Manchester Poor Law Union and Brixworth Union in Northamptonshire, saw it as an opportunity to cancel any remaining medical out-relief entitlements. This meant that more people had to enter the workhouse to obtain medical care. As a result, those that died had to undergo the ignominy of a pauper burial if their relatives and friends could not afford to pay their funeral expenses. In the Brixworth Union, for example, “an infant” named “William Henry Austin” from Holdenby village died in the workhouse on 26 July 1885.⁵¹ His family could not afford to bury him and so his body was sold to Cambridge anatomical teaching school. Following dissection and dismemberment it was returned on the railway, by prior arrangement with guardians to avoid a scandal, to Brixworth parish churchyard where it was buried in a pauper grave nearly two years later on 27 June 1887. Other guardians sold similar unclaimed cadavers to regional anatomical schools (Table 1). Macalister benefited from this parsimonious attitude (Figure 1). This second finding emphasizes how important the late-Victorian Poor Law context was to the expansion of anatomical training—the two were inextricably linked.

Table 1

Suppliers and number of cadavers sold to Cambridge anatomical teaching school, 1870–1920

The third point is that by the mid-1890s, despite these Poor Law changes, Macalister was still finding it difficult to maintain body supplies. He had to resolve a number of key problems. When the Poor Law was

democratized under the Local Government Act (1894) a new class of guardian was elected for the first time.⁵² In some unions, notably Brixworth, Leicester and Nottingham, the controversial anatomical policy was the focus of election campaigns. Supplies, therefore, stopped in many regions post-1894. Additionally, female guardians, elected in 1895 for the first time in many areas, were often anti-anatomical research.⁵³ A letter from Claude Douglas, the medical officer at Leicester Union, in October 1897 to the Cambridge anatomical school confirms the significance of these two changes in union personnel:

I have spoken to the Chairman of the Board of Guardians on the subject of your letter. He thinks you should write an official letter to him, which he would lay before the Board. At the same time he says he is sure they will not accede to it, though he personally would have no objection to the proposal. The subject was brought before them...and emphatically refused. As you are aware the Leicester people are a queer lot in all such matters. I will try to speak to some other members of the Board on the subject. There are several lady members!⁵⁴

Although Macalister had maintained close contacts with former undergraduates in order to facilitate cadaver acquisition when supplies were short, he began to experience problems. He always kept in close contact with doctors working in London, where mortality rates were higher, because they could supply him with dissected body parts when supplies were low or when students needed specific parts to complete their training. By the late-1890s, however, the London anatomical schools had become wary of their regional rival at Cambridge. They set up the London Anatomical Committee, a type of “closed anatomical shop”, to ensure that all dissection material was distributed only to the capital's teaching schools. For example, a former undergraduate, A Keith of the London Hospital medical school, University of London, confided to Macalister that:

My porter has a box of amputated parts, which he has saved for Cambridge, if they prove of use to you. They would be from 16 to 20 operative surgery bodies used every year at this school...we are willing but we are all afraid...principally of the jealousy of the London Anatomical Committee, which has informed us—indirectly—but still directly enough—that it will no longer observe our right to unclaimed bodies of the five infirmaries in the East [End], from which we at present draw our supplies, if we send material or let it go out of London. I might push the matter again, as I will, but I cannot act without the confidence of the College Board.⁵⁵

Fortunately Macalister was able to overcome these difficulties.

In 1896 the central university governing body introduced further curriculum changes. College, rather than university-wide, supervision was introduced and this led to smaller more manageable teaching groups, decreasing the need for so many bodies. Nevertheless, Macalister's archive reveals that by 1908, when he procured just thirty-eight bodies, the department was worried about a downward trend following the passing of the Old Age Pensions Act (1908), which decreased workhouse admittances. Thus, it undertook another body supply drive. This drive coincided with a move by all heads of regional anatomical schools to petition the government to alter the terms of the Anatomy Act (1832) by introducing a compulsory clause for Poor Law unions and asylums. On 5 March 1913 the Home Office held a conference in London on the ‘Supply of Bodies for Anatomical Purposes’.⁵⁶ Macalister attended, along with Professor Arthur Thomson (head of anatomy at Oxford), and members of the London Anatomical Committee. They argued that anatomical research was in the “state interest” and a “duty”. In preparation for the conference, Macalister wrote to all the Poor Law unions and asylums in the Midlands and the north of England. Their replies were used as evidence of the difficulties of procuring bodies. Macalister then claimed it was an impossible task, although the burial records of the anatomy school and the private correspondence in his archive give a more accurate

picture of effective procurement as well as his research priorities.

This leads us to the fourth and final point. Macalister's efforts were successful before the 1913 conference. So why was he trying to acquire more research material? An examination of the age and gender profiles of bodies procured reveals a strong motive. Macalister found it very difficult to obtain young female research material. Of the 2,953 bodies procured between 1855 and 1920, the ratio of men to women was 3:1 (1,971 men, 978 females—4 cases are recorded as of “unknown sex”). Most research material was aged fifty or over at time of death (Figure 2). These findings are, at one level, unsurprising. Critics of the Anatomy Act, as Richardson points out, were concerned from the outset that legislating against resurrectionist activity would make it very difficult to obtain younger specimens.⁵⁷ Similarly, Poor Law historians, such as Thomson, have shown that workhouses became institutional care homes for the elderly by 1891. Thomson's work on Bedfordshire reveals that one in every three workhouse inmates was classified as “aged” (over sixty-five) during the crusade campaign.⁵⁸ Michael Rose explains that elderly men, rather than women, were more likely to enter workhouses,⁵⁹ probably because men found it difficult to find menial work as they grew old, whereas women often contributed to meagre family make-shift economies into old-age. Women were also better equipped to survive alone. Many widows were both physically fit and more adaptable to a single life-style than their male counterparts. Additionally, taking in an aged female, rather than a male, relative might be motivated by calculative reciprocity—undertaking child-care, nursing, washing and mending duties—or family affection and duty, which tended to be extended to widows. Yet, the age profile cannot be taken at face value. The timing of acquisition rates and the ages of the dead need to be taken into account. Although averaging acquisition rates is imperfect, data nevertheless reveal a preference for younger research material during the earlier phase of the department's work before the numbers of cadavers obtained under the Poor Law increased dramatically after 1874. Records show that the department was sensitive about this trend. It also made regular illicit payments to maintain acquisition rates generally and appears to have begun to develop an internal market in research material by passing on dissected specimens to other fields of medical specialism.

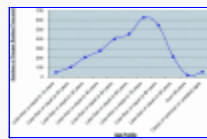


Figure 2

The age profile of pauper bodies procured by Cambridge anatomical teaching school, 1855–1920.

If we replot the age and gender profiles annually between 1855 and 1873/4, the data show that although fewer cadavers were acquired (just 189), anatomists valued infant or young female research material. Figure 3 gives the average ages of female bodies procured. Of course, these figures are fragile because in some years the numbers were small, around two or three, and averaging distorts the age profile. In other years, such as 1865, ages ranged from just 0 to 3. Nevertheless, the younger age trend is prominent. One further caveat needs to be made. It is also very difficult to ascertain fully the extent of work on younger research material because the anatomy school did not bury these anatomical specimens in the usual interment plot in the St Benedict's section of Mill Road cemetery. Younger research material was distributed in three adjacent plots—St Andrew's the Great, St Edward's, and St Mary the Less. Significantly, Rev. J T Lang officiated at the burials of over 80 per cent of all young research material interred between 1855 and 1920. Lang was senior tutor at Corpus Christi College (1892–97), which held the living of St Benedict's parish.⁶⁰ That such a senior clergyman should officiate at so many burials of young cadavers both before his appointment and long after his retirement is noteworthy. Downing College seems to have been aware of the sensitive nature of this type of research and took steps to limit knowledge of its work.



Figure 3

The average age profile of female cadavers procured by Cambridge anatomical teaching school, 1855–1874.

A noteworthy finding in the burial records is that many of the younger specimens were registered as dying outside the College—either at Downing Gate or in Slaughter House Lane. Nineteenth-century maps of the Downing site reveal that there was little residential housing near to that side of the College;⁶¹ a corn market and trading premises were its main neighbours. We can only conjecture why so many children and teenagers died in this vicinity. It could be that poorer people, with makeshift economies and no customary guarantee of poor relief, lacked funds to bury their children and in return for some form of remuneration handed over their “prized” young cadavers to the anatomy department of Downing College. Any sales would have saved expensive burial fees and compensated parents for the loss of income resulting from a child's death.⁶² The payment of incentives is not unlikely; Macalister's personal archive reveals that the anatomy school regularly paid Poor Law personnel in workhouses to ensure a regular supply of bodies. The working of such incentives can be examined in detail.

In the Yarmouth case of Frank Hyde, for example, the anatomy department paid the Master's clerk £6 14s 6d for the cadaver. This sum was recorded in workhouse records as having been spent as follows:

Railway fare 89s
 Shroud 3s 6d
 Coffin 21s
 Funeral superintendent 1s
 Assistance 10s
 Telegrams, etc. 10s
 Total: £6 14s 6d.⁶³

It later came to light that only £4 6s had been paid by the Master's clerk for the declared expenses. This allowed him to pocket a profit of £2 8s 6d from the sale. He was able to do this because he paid the costs out of his “private purse” and then was reimbursed by the anatomical school. The system gave him considerable scope to defraud both guardians and the anatomy department. Similar bills in the Macalister papers reveal that on average a fee of £1 1s was paid per cadaver to suppliers on an individual basis. A revealing letter has survived from the superintendent of Three Counties Asylum at Hitchin, Mr W H Ekins, to Dr Barclay-Smith of the Cambridge anatomical school. It reads:

In the ordinary course when a patient dies and is buried in the Asylum cemetery, we make a coffin and the Union to which the patient belongs pays 15/- [shillings] for the same. When we send to Cambridge, we make the coffin just the same and charge it to the Union, and as far as the latter is concerned, they know nothing as to the burial, neither does the Auditor. When it goes to Cambridge, I pay the carriage out of my own pocket, which is refunded by you, therefore it does not appear in the Asylum accounts and there is no reason why it should.⁶⁴

Payment by results had an unsettling context under the late-Victorian Poor Law.

One further point is worth noting about the efforts to procure younger research material. Once the cadavers had been dissected and dismembered by anatomists they were sometimes passed for research purposes, either to one of several new laboratories on the Downing site, notably the Cavendish Laboratory, or to the old Addenbrooke's Hospital (located behind the anatomy school in Trumpington Street).⁶⁵ Clinical medicine at Cambridge was in its infancy in this period, but starting to expand rapidly and so an internal market of shared research specimens may have been evolving.⁶⁶ There is evidence that by 1912 the anatomy department was developing close ties with the first tissue culture laboratory in Britain, located on the Downing site.⁶⁷ It also had close links with new specialisms, especially embryology and pathology. Indeed the current anatomical museum at Downing contains a rich collection of this research material. Interestingly,

some specimens are still used for teaching purposes. The burial records also reveal small deposits of foetal material, recorded as aged under 0. It is difficult to ascertain how common this was because the records that have been found to date are fragmentary. Yet, given that Macalister was making a special study of anatomical abnormalities and deformities, it is possible that miscarriages interested him. It would be useful to know whether some of the material that passed through Addenbrooke's Hospital contained this type of research specimen. Further study is needed of this aspect of the anatomy department's work, but the records allow us to reconstitute the scale of Poor Law and asylum co-operation.

The Geography of Pauper Cadaver Procurement

Pauper cadavers were supplied to the Cambridge anatomical teaching school from more than forty sources between 1855 and 1920 ([Table 1](#)). The data reveal five broad findings.⁶⁸

Despite Macalister's contrary claims in his memoranda to the Anatomy Inspectorate in London, he procured around 34 per cent of his dissection material from Cambridge city centre and Addenbrooke's Hospital. A plotting of the streets where he obtained cadavers reveals that the closer the proximity of death either to the anatomy school, the Cambridge workhouse, or Mill Road cemetery the higher the chance of the body ending up as dissection material. The poorer districts of the city provided most of the dissection specimens. So far no evidence has emerged to suggest how this was achieved on such a regular basis and scale. Again, we can only conjecture about local arrangements between doctors, undertakers, bereaved families and the anatomy department.⁶⁹ All that can be said is that, given the high numbers, a system had to be in place to make this process function. The figures from sources supplying 10 per cent or more cadavers regionally reflect late-nineteenth-century demographic trends. Hull, for example, was one of the chief suppliers—with 315 bodies. It was one of the five English cities with the highest mortality rates at this period. Demographic historians often note the north/south divide in mortality patterns, with the exception of London.⁷⁰ Again, the cadaver figures for Cambridge broadly verify this. The Hull and Doncaster unions lead the suppliers' list, closely followed by Finchley Union in London. Leyton Union (East London), which supplied 129 bodies (4.37 per cent), was a logical supplier too. Brighton Union, followed closely with 104 cadavers (3.52 per cent).

Though Brighton seems to run counter to the north/south divide trend, in fact it was a mortality hot spot for paupers post-1870. In spite of the fact that public health in the city had been improved as a result of the work of the medical officer Arthur Newsholme from 1888, the local poor relief regime favoured anatomists.⁷¹ Brighton Poor Law Union was one of the national leaders in the crusade against outdoor relief. The aged poor, therefore, lost their customary funeral payments. Fear of a parsimonious poor relief regime and its accompanying social stigma meant that many did not seek medical relief in the workhouse until it was too late. This last resort attitude amongst the poor resulted in increasing numbers of pauper cadavers being sold to Cambridge anatomists. Sanitary improvement in Brighton, therefore, ran counter to Poor Law policy. Guardians discriminated against those who led parlous existences, in both life and death.⁷² The East Anglian and Midlands Poor Law unions were also regular suppliers. Indeed, once a board of guardians passed a motion in support of anatomical provision the arrangement continued for many years. The Yarmouth guardians, for example, passed a motion in 1885 following the passing of the Medical Relief (Disqualification Removals) Act to sell cadavers to Cambridge. The policy was not re-considered until it was discovered that Frank Hyde's body was missing from the local cemetery. The adverse publicity stopped supplies from Yarmouth after 1902. Most Poor Law guardians were elected to office every three years. Few people were willing to undertake this unpaid and often tedious work, and those that were prepared to serve were often in office long term. They had no reason to re-visit such a controversial issue unless it had been the focus of an election campaign, like those following the democratization of the Poor Law under the Local Government Act (1894). Indeed, guardians often had no knowledge of the anatomical arrangements during their term of office. It was not in the interests of workhouse personnel to draw attention to such a highly controversial

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policy that generated a regular income supplement. These factors fostered a furtive administrative climate of close co-operation. The policy seems to have been to say nothing, record nothing and evade all enquiries when questioned.

It is evident that some Midlands and London asylums also supplied bodies, though in lower numbers than might be expected. Fulborn in Cambridgeshire, with 100 bodies (3.38 per cent), leads the asylum table. Correspondence between Macalister and various medical officers and superintendents explains asylum reticence. The medical superintendent at Norfolk County Asylum, for example, outlined his board's reluctance to accommodate the anatomists in October 1912:

Alas and alack! no luck. I tried my level best at the meeting of my committee yesterday, but they wouldn't have it. My Chairman rarely speaks but on this occasion he got up and made a speech, which carried the waverers with him. Of course he took the old line about the sentiment of the thing, that if it got about that the cases dying here were sent away to "be cut up" in the dissecting room, no cases would be sent to us and so on.⁷³

Similarly Hertfordshire County Asylum advised the same month that their "committee was [of] the general opinion that as persons sent here are detained against their will, difficulties would arise in the event of friends enquiring (as we have experienced) some years after a patient's death".⁷⁴ Nevertheless, other asylums were regular suppliers—notably Colney Hatch (Cambridgeshire), Three Counties (Bedfordshire) and the London County Asylum (Dartford). Macalister took a personal interest in this type of research material because his work had eugenic overtones.

While some of the leaders in the crusade against out-relief supplied cadavers regularly, notably Brighton, Manchester, Reading, Southampton and Whitechapel,⁷⁵ they were not alone. A wide cross-section of asylums and Poor Law unions followed suit. Some, like Hull, claimed to reject the ethos of the crusade against outdoor relief publicly, but in private complied. Widespread union co-operation in the cadaver supply trade demonstrates the importance of looking beyond central government pauperism statistics to the regional systems of welfare.⁷⁶ It is also clear that those historians who have dismissed the "crusade" decades as irrelevant—a policy only pursued by mavericks—need to look again at the administrative record and the close links with anatomical teaching.

Finally, the location of supplier Poor Law unions and asylums within the Eastern counties railway network reveals that Cambridge anatomists targeted towns on the Great Eastern, Great Northern and Midland main and branch lines.⁷⁷ For example, Bedford, Biggleswade, Hertford, Hitchin, Huntingdon, Luton, Stevenage and Three Counties were all stations on the Great Eastern line going out of Cambridge. Similarly, Bishop's Stortford, Bury St Edmunds, Ely, Haverhill, Histon, Fulbourn, Lakenheath, Mildenhall, Saffron Walden, and Thetford surrounded Cambridge on branch or main lines (most of these were closed in the 1960s). In fact, railway expansion at Cambridge got underway in the Victorian period because of a desire to link London to northern coal and industry via an Eastern counties stop-over. As a result, the anatomists benefited from transportation networks that provided links to towns with high mortality rates. From September 1882 they could use a thrice-daily freight service between Liverpool Street and Doncaster via Cambridge. Similar coal and cattle services were operating between Cambridge and Leeds (via the Leeds and Selby link) by 1892. Other important direct links to Hull, Huntingdon and Nottingham had created opportunities to develop anatomical links further afield by the late-1890s. Railway connections explain why smaller unions, like Mildenhall, Wisbech and Biggleswade, with populations of only around 5000 in the 1890s, supplied proportionately more cadavers. Quite simply, they were ideally located. Commentators often note that the railway was one of the chief symbols of modernity in Victorian England. It is seen as an engine of progress that expanded entertainment and employment opportunities for poorer working people. Paradoxically, it also regularly carried a cadaver freight that ignored what was socially acceptable. Ironically, the railway as a

symbol of modernity and scientific progress encompassed the contravention of the poor's cultural expectations.

Intriguing as it is, it remains possible that the Cambridge anatomy school cadaver network was unique and that similar networks involving asylums and Poor Law unions did not exist elsewhere. Yet the possibility that the case is atypical should not prevent us from considering its wider implications.

Conclusion

It is evident that anatomists, asylum superintendents, guardians of the poor, medical officers and workhouse personnel had close working relationships. These took time to develop fully and came to fruition during the most radical phase of anatomical expansion and Poor Law administration after 1870. The findings of this case-study indicate that anatomical–Poor Law relations unfolded in a series of staging posts. Four outcomes are discernable.

First, the timing of the crusade against outdoor relief mirrors the pattern of anatomical cadaver acquisition. The start of the crusade increased pauper specimens 100 per cent in 1873/4. When the Medical Relief (Disqualification Removal) Act (1885) was passed cadaver numbers increased by a further 100 per cent. The economic interests of asylums and guardians of the poor converged with the research and training agendas of Cambridge anatomists. Many Poor Law unions that denied their involvement in the crusade were supplying pauper cadavers to recover the costs of care in the community. Macalister, writing from Downing College, told the unions what they wanted to hear—it was their “duty”, it made “financial sense”, and “not all bodies were dismembered”. No one checked his claims. In fact, all bodies were dismembered because of the need for teaching material. Some unions rejected his requests but few of those who complied questioned his logic or his paternalistic arguments. The anatomist was promoting the desecration of the body for the benefit of humankind. That assumption survives today in many medical fields, notably pathology.

Second, the Anatomy Act (1832) gave regional anatomical schools a high degree of autonomy. Macalister instituted important reforms in methodology and teaching during his tenure at Downing. He was not obliged to do this by the Anatomy Inspectorate in London, which was understaffed. He also shaped his research agendas and procured material as he saw fit. Body finding drives were his initiative. The Local Government Board in London did not oversee his memoranda to asylums and Poor Law unions. His methods of procurement and payment by results were unchecked and there was considerable scope for fraud. At the same time, Macalister could utilize material without scrutiny, which allowed him to develop close ties with new fields of medical specialism, notably embryology and pathology. He also supplied cadavers to the Cavendish Laboratory. An organ register was introduced into the anatomy teaching rooms, but only because Macalister wanted all abnormalities recorded, not because it was a legal requirement. He was not motivated by the necessity of keeping proper dissection records on behalf of poorer families, even though the latter were anxious to ensure that human remains were buried together. Further comparative work might enable us to ascertain to what extent this lack of public accountability shaped the anatomical procedures that we have inherited today.

Third, the demographic profile of the bodies that passed through Cambridge anatomy school confirms why so many aged poor dreaded workhouse admittance by the late-Victorian era. Living in close proximity of the anatomy school, cemetery or workhouse enhanced the chances of ending up as research material. Similarly, being treated in a workhouse infirmary or Addenbrooke's Hospital increased the likelihood of dissection by anatomists. There is a large medical and Poor Law historiography that emphasizes the benefits of workhouse infirmary expansion under the late-Victorian Poor Law, but it tends to overlook the social cost of so-called Whiggish policies.⁷⁸ In an era when the dissection or dismemberment of human remains signalled social failure for bereaved families, it is unlikely that the majority of aged paupers viewed their

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anatomical fate as progressive.

Fourth, this case-study suggests that the current organ controversies in the National Health Service, notably at Alder Hey children's hospital in Liverpool, may have historical parallels. Richardson has recently discussed this possibility.⁷⁹ She calls for further regional research to enable the medical profession to have a better understanding of how and why its anatomical procedures developed. Such understanding would inform current bio-ethical dilemmas.

Historically there are aspects of Cambridge's anatomical work, outlined here, that resonate today⁸⁰—high levels of anatomical clinical waste; selling cadavers to recover administrative costs; a lack of proper organ registering; ad hoc procedures flourishing because of legal loop-holes; a scientific élite convinced of its intellectual and methodological superiority; research methods unchecked locally; consent legally approved but public sensibilities ignored. The list is enlightening and disquieting, since these are all aspects of recent pathology controversies. No one denies the contribution that anatomical advances have made to society. We are all beneficiaries of medical pioneers in their respective research fields. However, in the past, as now, the issue of consent and a culture of genuine public consultation are paramount. Evidently, the Anatomy Act (1832) and the late-Victorian Poor Law created a culture of duplicity, which endures today. Until the contexts of their cultures are uncovered through further regional work, we will never fully understand the legacy of late-Victorian “Alder Heys”.

Acknowledgments

I am grateful to the anonymous referees who gave valuable constructive criticism. Similarly I would like to thank Dr Peter Bartrip, Prof. Peter King and Dr Steven King, who were kind enough to read a draft of this article and gave such encouraging advice. I am also indebted to Mr John McDonald who alerted me to the significance of the location of Great Eastern railway stations and how these mirrored the pattern of anatomical procurement geographically. Finally, thanks must go to Barry Logan, the present provector in anatomy at Downing College, who gave so much of his time and enthusiasm to my persistent enquiries.

Footnotes

¹ Editorial, ‘Alleged traffic in pauper corpses—How the medical schools are supplied—The shadow of a scandal’, *Yarmouth Advertiser and Gazette*, 11 May 1901, p. 7.

² Cambridge Record Office (hereafter CRO), P25/1/22, St Benedict's parish burial register, 1894–1906.

³ *Councillor and Guardian*, June 1901, p. 12. This was a journal of national significance.

⁴ R Richardson, *Death, dissection and the destitute*, 2nd ed., London, Phoenix Press, 2001 (first published 1988). The second edition contains an afterword on the Alder Hey controversy.

⁵ *Ibid.*, pp. 3–30; Richardson explains that popular culture held that human remains and the fate of the personality of the soul were one. The soul was guaranteed an after-life if the body was interred whole with some form of basic religious rite, usually Christian. The dissection or dismemberment of a corpse for anatomical teaching purposes, therefore, advertised social and religious failure to the wider community. Despite the concerns of the poor to preserve their popular death customs so as to avoid being condemned in this life and the next, the Anatomy Act gave legal precedence to anatomists' work. The statute permitted Poor Law and asylum authorities to recover welfare costs by selling any pauper cadavers “unclaimed” by relatives or friends up to six weeks after death for burial, to anatomical schools to be used for teaching purposes.

⁶ Several renowned cases of grave-robbing for profit that supplied Cambridge came to light at Great Yarmouth in 1809, contributing to pressure for the new anatomical law, see Richardson, *op. cit.*, see note 5 above, pp. 83, 85–9. Since the issue of consent remained controversial in the area vis-à-vis Cambridge after 1832 it makes an ideal case-study for examining the issue of continuity.

⁷ Four trends reflecting this proclivity are discernible in the current literature. First, some medical historians have examined university-based curriculum developments, see, for example, J A Fairfax Fozzard, *Professors of anatomy in the University of Cambridge: ... 1707–1968*, Cambridge University Press, 1983; M R Jackson, ‘The teaching of anatomy in London as seen through the *Lancet*, 1823–1848’, BSc dissertation, London, Wellcome Institute for the History of Medicine, 2000; M W Weatherall, *Gentlemen, scientists and doctors: medicine at Cambridge, 1800–1940*, Cambridge University Press, 2000. Second, others have explored the growth in laboratory technology: J V Pickstone, *Medicine and industrial society: a history of hospital development in Manchester and its regions, 1752–1946*, Manchester University Press, 1985; K Waddington, ‘Unsuitable cases: the debate over out-patient admissions: the medical profession and late-Victorian London hospitals’, *Med. Hist.*, 1998, **42**: 26–46; *idem*, *Charity and the London hospitals, 1850–1898*, London and New York, Boydell Press, 2000; M W Weatherall, *Scientific medicine and the medical sciences in Cambridge, 1851–1939*, Cambridge University Press, 1994. A third trend is to examine the impact of the Medical Act (1858): A Digby, *Making a medical living: doctors and patients in the English market for medicine, 1720–1911*, Cambridge University Press, 1994; I S L Loudon, *Medical care and the general practitioner, 1750–1850*, Oxford, Clarendon Press, 1986; R and D Porter, *In sickness and in health: the English experience, 1650–1850*, London, Fourth Estate, 1988; R Porter, *Quacks, fakers and charlatans in English medicine*, Stroud, Tempus Publishing, 2000. Finally, others have begun to explore the training experience of anatomy students: S V F Butler, ‘A transformation in training: the formation of university medical faculties in Manchester, Leeds and Liverpool’, *Med. Hist.* 1986, **30**: 115–32; C Dyhouse, ‘Women students and the London medical schools, 1914–39: the anatomy of a masculine culture’, *Gender and Hist.*, 1998, **10**: 110–32; D Gareth Jones, *Speaking for the dead: cadavers in biology and medicine*, Aldershot, Ashgate, 2000; E Knox, ‘The body politic: body snatching, the Anatomy Act and the poor on Tyneside’, *North East Labour History Bulletin*, 1990, **24**: 19–35; R C Maulitz, *Morbid appearances: the anatomy of pathology in the early nineteenth century*, Cambridge University Press, 1987; P M H Mazumdar, ‘Anatomical physiology and the reform of medical education: London, 1825–35’, *Bull. Hist. Med.* 1983, **57**: 230–46; A Morgan, ‘A beautiful, but seductive science” or “strange and revolting work”?: medical student's experiences of dissection between 1830 and 1880’, BSc dissertation, London, Wellcome Institute for the History of Medicine, 2001.

⁸ This phase of radical Poor Law administration is very neglected in current historiography. The most recent text to be published in this field is still K Williams, *From pauperism to poverty*, London, Routledge & Kegan Paul, 1981. Recent revisionism indicates just how radical anti-welfare measures were and highlights the sale of cadavers for anatomical purposes, see E T Hurren, ‘The *bury-al* board: poverty, politics and poor relief in the Brixworth Union, Northamptonshire, 1870–1900’, unpublished PhD thesis, University of Leicester, 2000.

⁹ M Sappol, *A traffic of dead bodies: anatomy and embodied social identity in nineteenth-century America*, Princeton University Press, 2002; see also S Baatz, ‘A very diffused disposition”: *dissecting schools in Philadelphia, 1823–25*, Pennsylvania, The Historical Society of Pennsylvania, 1984; R L Blakely and J M Harrington (eds), *Bones in the basement: postmortem racism in nineteenth-century medical education*, Washington and London, Smithsonian Institution Press, 1997.

¹⁰ A Commonwealth and European perspective is also lacking in current historiography. Current work often takes a medical élite perspective and undervalues the Poor Law context, see, for instance, J Fleetwood, *The Irish body snatchers: a history of body snatching in Ireland*, Dublin, Tomar, 1988; M Colligan, ‘Anatomical wax museums in Melbourne: 1861–1887’, *Aust. cult. Hist.*, 1994, **13**: 52–64.

¹¹ Sappol, *op. cit.*, note 9 above, p. 118.

¹² This tends to be explored from the perspective of working-class periodicals, see, for instance, L Hollen Lees, *The solidarities of strangers: the English Poor Laws and the people, 1700–1948*, Cambridge University Press, 1998, uses one source, the *Poor Man's Guardian*. This lack of regional research means that late-Victorian Poor Law records filled with accounts and complaints written by the poor objecting to pauper funeral treatment are neglected. See E T Hurren and Steven King, 'Begging for burial: pauper funeral provision in England, 1750–1900', forthcoming.

¹³ E Garrett, A Reid, K Schurer and S Szreter, *Changing family size in England and Wales: place, class and demography, 1891–1911*, Cambridge University Press, 2001, the broad north/south demographic mortality trends are discussed on p. 355.

¹⁴ See, for instance, Public Record Office (hereafter PRO), MH74/36, returns of pupils dissecting in schools of anatomy, winter 1877–78.

¹⁵ Many anatomical registers compiled by medical schools have not survived, which hampers research, and in addition, in the mid-Victorian period, Poor Law and asylum records of cadaver sales are fragmentary. Yet, these primary source problems can be overcome. Under successive Burial Acts (1866, 1888 and so on) anatomical schools were legally required to appoint an officiating clergyman who was responsible for keeping accurate interment records and conducting a basic Christian service on their behalf each time a batch of cadavers was released after dissection and dismemberment. Contrary to rumours amongst the poor, most anatomical teaching material was buried with Christian rites. Generally, medical schools used a regular burial plot located near their teaching facility. These surviving burial registers, with the caveat that they are not always accurate, can be utilized to compile a demographic survey of cadaver procurement.

¹⁶ See, for example, C W M Pratt, *The history of anatomy at Cambridge*, University of Cambridge, School of Anatomy, 1981; Weatherall, *Gentlemen, scientists and doctors*, op. cit., note 7 above; R Macleod, *The "creed of science" in Victorian England*, Aldershot, Variorum, 2000; P Harman and S Mitton (eds), *Cambridge scientific minds*, Cambridge University Press, 2002.

¹⁷ Pratt, op. cit., note 16 above, p. 11.

¹⁸ A Macalister, *The history of the study of anatomy in Cambridge*, Cambridge, The University Press, 1891.

¹⁹ His internationally renowned publications included: *An introduction to animal morphology and systematic zoology part I: invertebrata*, Dublin, Hodges, Figgis, 1876; *A text-book of human anatomy: systematic and typographical*, London, Charles Griffin, 1889.

²⁰ S French, *The history of Downing College, Cambridge: volume two, 1888–1914*, Cambridge University Press, 1978.

²¹ *Ibid.*, p. 70.

²² *Lancet*, 1899, **ii**: 1181.

²³ An undergraduate student at Downing College first used this material in 1994. Her dissertation is titled, 'A corporeal correspondence: Professor Macalister's searches for stiffs'. The author was identified on the cover only as "Danielle"; I would be happy to give her a proper citation. The dissertation used the material to give a brief overview of Macalister's work. Extracts from her work also appear in Weatherall, *Gentlemen, scientists and doctors*, op. cit., note 7 above. I would like to reiterate here how grateful I am to the present provector of anatomy at Downing College, Barry Logan, for alerting me to this material and sharing his enthusiasm in such an encouraging way. I thoroughly enjoyed our body hunts around Cambridge.

²⁴ This collection was recently broken up when the anatomy library at Downing was dismantled and redistributed to the main central university library collection. Regrettably a lot of material was consigned to a bonfire. Barry Logan, who thankfully recognized the importance of the primary sources, rescued the Macalister Papers.

²⁵ Macalister Papers (hereafter MP), Downing College, Cambridge, teaching notes on taking up appointment.

²⁶ H Ellis, 'History of anatomy in the university of Cambridge', *Clin. Anat.*, 1993, **6**: 188–91.

²⁷ A Macalister, *Some morphological lessons taught by human variations and so on: the Robert Boyle lecture No. 3 1892*, London, Henry Frowde, 1894.

²⁸ PRO, MH74/36, Memo marked 'Private—To Poor Law Guardians', Cambridge, 1 March 1884, signed G E Paget MD (Regius professor of physic, Cambridge), G M Humphry MD (professor of surgery, Cambridge) and A Macalister MD (professor of anatomy, Cambridge).

²⁹ Porter, *Quacks, fakers and charlatans*, op. cit., note 7 above, pp. 29–30.

³⁰ MP, A Macalister, memo to boards of guardians, 9 Oct. 1884.

³¹ PRO, MH74/36, copy of memo by G H Humphry to Midlands Poor Law unions, 9 Oct. 1884.

³² MP, A Macalister, memo to boards of guardians, 9 Oct. 1884.

³³ Richardson, op. cit., note 4 above, p. xv.

³⁴ Poor Law and cemetery provision is discussed in C H Cooper, *Memorials of Cambridge*, Cambridge, 1866, vol. 3, p. 147; J P C Roach, *A history of the county of Cambridge and the Isle of Ely*, vol. 3, *The city and university of Cambridge*, London, Oxford University Press for the Institute of Historical Research, 1959, p. 274.

³⁵ I am grateful to Mr David Thomas, director of Cambridge crematorium, who gave me access to Histon Road cemetery records and outlined burial provision in the city comprehensively during a visit in July 2001.

³⁶ CRO, P25/1/21–23, St Benedict's burial records.

³⁷ It revised its burial arrangements in 1855 for two further reasons. First, in that year the department persuaded the Cambridge Poor Law union to supply bodies. Second, the department received only meagre supplies from the London Hulks by the mid-1850s. It was essential to sort out covert burial arrangements to protect the new asylum and Poor Law suppliers from public scrutiny, see Weatherall, *Gentlemen, scientists and doctors*, op. cit., note 7 above, p. 99.

³⁸ The accuracy of these figures has been checked in three ways. Church officials annotated burial registers on a regular basis with a "p", to indicate a pauper interment on behalf of the anatomical school. These were then sampled and checked against case-study material in Macalister's archive to test their reliability. Second, a database was compiled that includes a record of officiating burial administrators. Generally, this involved a clergyman and a representative from the anatomy school. Where the burial register did not record an anatomy official present, the case was not included in the sample. Figures are, therefore, probably under-estimated. Third, the present provector of anatomy at Downing College agreed to release some early-twentieth-century anatomical details, provided these would be used only to check the accuracy of St Benedict's dissection interments. The anatomy registers duplicated the St Benedict's burial records.

³⁹ Richardson, op. cit., note 4 above, p. 247.

⁴⁰ Pratt, op. cit., note 16 above, p. 13.

⁴¹ M Rose, 'The crisis of poor relief in England, 1860–1890', in W Mommsen and W Mock (eds), *The emergence of the welfare state in Britain and Germany, 1850–1950*, London, Croom Helm on behalf of the German Historical Institute, 1981, pp. 50–70.

⁴² R Humphreys, *Sin, organized charity and the Poor Law in Victorian England*, Basingstoke, Macmillan, 1995, pp. 20–1.

⁴³ These are briefly outlined in A Kidd, *State, society, and the poor in nineteenth-century England*, Basingstoke, Macmillan, 1999, pp. 45–64; Hollen Lees, op. cit., note 12 above, discusses Karel Williams' 1981 work on this subject (see note 8 above).

⁴⁴ Williams, op. cit., note 8 above, pp. 96–107.

⁴⁵ D Thomson, 'Welfare and the historians', in L Bonfield, R M Smith and K Wrightson (eds), *The world we have gained: histories of population and social structure*, Oxford, Blackwell, 1986, p. 374.

⁴⁶ See, for example, E T Hurren, 'Labourers are revolting: penalising the poor and a political reaction in the Brixworth Union, Northamptonshire, 1875–1885', *Rural Hist.*, 2000, **2**: 37–55; *Idem*, 'Agricultural trade unionism and a crusade against outdoor relief: Poor Law politics in the Brixworth Union, Northamptonshire, 1870–75', *Agric. Hist. Rev.*, 2000, **48** (pt 2): 200–23; S A King and J Stewart, 'The history of the Poor Law in Wales: under-researched, full of potential', *Archives*, 2001, **105**, issue 26: 134–48.

⁴⁷ A Digby, 'The labour market and the continuity of social policy after 1834: the case of the eastern counties', *Econ. Hist. Rev.*, 1975, 2nd series, **28**: 69–83; *Idem*, *The Poor Law in nineteenth-century England and Wales*, London, Historical Association, 1982.

⁴⁸ T Laqueur, 'Bodies, death and pauper funerals', *Representations*, 1983, **1**: 109–31. These conventions are also discussed in R Richardson, 'A dissection of the Anatomy Acts', *Studies in Lab. Hist.*, 1976, **1**: 8–11; M Wheeler, *Death and the future life in Victorian literature and theology*, Cambridge University Press, 1990; P Jalland, *Death in the Victorian family*, Oxford University Press, 1996.

⁴⁹ PRO, MH74/11, A Macalister to J Pickering Pick, memo, 9 Oct. 1896.

⁵⁰ This under-rated legislation is briefly discussed in D Englander, *Poverty and Poor Law reform in Britain, 1834–1914: from Chadwick to Booth*, London, Longman, 1998, p. 25.

⁵¹ Northamptonshire Record Office (hereafter NRO), PL2/12, Brixworth Poor Law Union register of deaths, 1837–1895. These were checked against interment records held at Brixworth parish church. I am indebted to the present incumbent, Rev. Watson, for his assistance in reconstituting these burial records.

⁵² This facet of the late-Victorian Poor Law is much under studied, see Hurren's articles note 46 above.

⁵³ The election of lady guardians is outlined in P Hollis, *Ladies elect: women in English local government, 1865–1914*, Oxford, Clarendon Press, 1987; however, conventional views of female administration are being challenged, see S A King, *Born to intellectual freedom out of material security: Mary Haslam and the Bolton Union, 1870–1914*, Manchester University Press, forthcoming 2004.

⁵⁴ MP, memo from Claude Douglas, New Walk, Leicester, 7 Oct. 1897, to Downing anatomy school.

⁵⁵ MP, A Keith, the London Hospital medical school, University College London, to Prof. Macalister, 6 May 1903.

⁵⁶ MP, see, for example, 1912 notes on “old and possibly new sources of bodies” by A Macalister.

⁵⁷ Richardson, *op. cit.*, note 4 above, p. 247.

⁵⁸ D Thomson, ‘Workhouse to nursing home: residential care of elderly people in England since 1840’, *Ageing and Society*, 1983, **3**: 43–69.

⁵⁹ Rose, *op. cit.*, note 41 above, pp. 50–70, argues women were less harshly treated on the whole and benefited from the move to boarding out vulnerable paupers post-1870.

⁶⁰ P Bury, *The college of Corpus Christi and of the Blessed Virgin Mary: a history from 1822–1952*, Cambridge University Press, 1952, pp. 278–89.

⁶¹ I am grateful to the staff at Cambridgeshire Record Office who helped me plot the post-1885 Downing site and its surrounding street network from maps in their collection.

⁶² Although Richardson (*op. cit.*, note 4 above, pp. 3–30) stresses the reluctance of the poor to sell children's bodies because of moral and religious dilemmas, financial desperation may have forced some families to sell their dead infants. Possibly, a lack of residential property in that area facilitated covert sales. Selling a baby's cadaver outside its neighbourhood decreased the chances of surveillance by the community, and may have been more desirable than approaching a local intermediary to arrange the transaction. Evidence exists in letters from paupers among the Estcourt Papers, Gloucestershire Record Office, that they were anxious to avoid neighbourhood gossip and occasionally acted in this manner. This was not just a British phenomenon, as Frank McCourt's childhood memoir, *Angela's Ashes*, London, Penguin, 1994, p. 41, reveals. He recounts how his father sold his sister Margaret, after she died just seven weeks old, direct to anatomists for dissection in 1940s America. This prevented her being buried in consecrated ground, a bitter, but necessary, financial transaction for his Irish Roman Catholic mother. Similarly, Sappol, *op. cit.*, note 9 above, pp. 39–43, reveals that it was common in nineteenth-century America to pose for a photoportrait with a deceased infant before it was handed over to anatomists. The visual representation was designed to console the family with a wholesome image, because the child's remains were to be dissected and dismembered with consent. The fact that a baby-farm existed in the Downing area cannot be discounted, but no evidence has come to light. However, since, as Hamrighaus explains, children were seldom abandoned but were sent to baby-farms by middle-class families, it seems unlikely that the data represent sales of the bodies of lost and unwanted children only. R E Hamrighaus, ‘Wolves in women's clothing: baby farming and the British Medical Journal, 1860–72’, *J. Fam. Hist.*, 2001, **26**: 350–72.

⁶³ MP, cadaver invoices, 1901–2.

⁶⁴ MP, W H Ekins, superintendent Three Counties Asylum, to Dr Barclay-Smith, Cambridge anatomical teaching school, 2 Oct. 1912.

⁶⁵ B Pippard, ‘Thomson, Rutherford and atomic physics at Cambridge’, in P Harman and S Mitton (eds), *Cambridge scientific minds*, Cambridge University Press, 2002, ch. 11, pp. 155–72, points out that experiments were being carried out in the Cavendish Laboratory on the conduction of electricity on cadavers. It was here in 1895 that scientists announced the discovery of X-rays and in 1896 radioactivity. Cadavers seem to have been passed on from the anatomy department for these research purposes. Though why they preferred young research material is not clear.

⁶⁶ Weatherall, *Gentlemen, scientists and doctors*, *op. cit.*, note 7 above, pp. 104–8, discusses the close relationships that developed between science (specifically embryology and physiology) and anatomy at Cambridge. He explains that human anatomy by the mid-1880s found itself competing with new branches of clinical medicine. It responded by developing interdependent ties with its competitors, which facilitated a culture of shared research material.

⁶⁷ Known as the Strangeways Laboratory, details of its tissue culture work can be researched at the Wellcome Library, Archives and Manuscripts, SA/SRL, Strangeway papers, 1900–1990 (contains also papers of and on T S P Strangeways 1886–1926); Wellcome, PP/HBF, Dame Honor Fell papers, 1919–1988.

⁶⁸ Two methodological caveats are worth noting. First, the figures for Cambridge city centre should be viewed alongside those for Addenbrooke's Hospital. Post-1900 the burial register of St Benedict's records that most bodies listed as having died in a Cambridge city street had in fact “died in hospital” and not at home. For example, a pauper named Eliza Johnson aged forty-eight from New Street, Cambridge, was interred by the anatomy school on 13 Jan. 1910. A pencilled entry, “died in hospital” appears in the register beside her place of death. This was probably Addenbrooke's Hospital and she was doubtless a coroner's case. The Macalister archive indicates that such arrangements were common. These “died in hospital” cases have not been reallocated to the Addenbrooke's figures because we have no way of checking their accuracy. It means, however, that the Addenbrooke's figures are likely to be considerably under-estimated. Second, over time cadavers were procured from three sources in each location: workhouses, workhouse infirmaries and, by the 1920s, refurbished former workhouses (listed as Poor Law nursing homes). These have only been expressed as one location in Table 1 because all three categories were under the remit of the late-Victorian Poor Law.

⁶⁹ At this research stage it is difficult to ascertain whether the arrangements were between doctors and undertakers, rather than directly with families. The high numbers suggest various agencies may have been involved.

⁷⁰ Garrett, *et al.*, *op. cit.*, note 13 above, p. 355, discusses broad north/south demographic trends.

⁷¹ J M Eyler, ‘Poverty, disease, responsibility: Arthur Newsholme and the public health dilemmas of British Liberalism’, *Milbank Q.*, 1989, **67**: 109–26; *idem*, ‘The sick poor and the state: Arthur Newsholme on poverty, disease and responsibility’, in C Rosenberg and J Golden (eds), *Framing disease: studies in cultural history*, New Brunswick, Rutgers University Press, 1992, pp. 276–96; J M Eyler, *Sir Arthur Newsholme and state medicine, 1885–1935*, Cambridge University Press, 1997. Newsholme's epidemiological research during his tenure at Brighton as medical officer of health from 1888 (notably on tuberculosis, scarlet fever and diphtheria) demonstrates the complexities of central–local welfare relations in late-Victorian England. New health policies sponsored by the Local Government Board often ran contrary to its own desire to keep poor relief costs low, exemplified by the crusade against outdoor relief. See E T Hurren, ‘Diphtheria debates: the challenge of the crusade against outdoor relief to public health improvements in late-Victorian England, 1870–1900’, forthcoming, copy at University College Northampton. These welfare policy tensions benefited anatomists.

⁷² Demographic trends were overturned by 1911, see Garrett, *et al.*, *op. cit.*, note 13 above, p. 362.

⁷³ MP, D G Thomson, medical superintendent, Norfolk County Asylum, to Dr Barclay-Smith, Cambridge anatomical school, 16 Sept. 1912, and follow up letter, 4 Oct. 1912.

⁷⁴ MP, A Boyle, superintendent Hertfordshire County Asylum, to Dr Barclay-Smith, Cambridge anatomical school, 9 Oct. 1912.

⁷⁵ Although Reading, Southampton and Whitechapel sold only a few cadavers to the Cambridge anatomy school, they were the chief suppliers of the Oxford anatomy school. It was the surplus which was sold to Cambridge. See Oxford City Council Archives, Cemetery Committee Books 1870–1900, Oxford Record Office; E T Hurren, ‘The business of anatomy: Oxford anatomical school and its pauper cadaver trafficking, 1870–1914’, work in progress paper read at University College Northampton.

⁷⁶ This point is made forcibly in the conclusion of S A King, *Poverty and welfare in England, 1700–1850: a regional perspective*, Manchester University Press, 2000; and Hurren's thesis on the late-nineteenth-century

experience, op. cit., note 8 above.

⁷⁷ *A regional history of the railways of Great Britain*, vol. 5: *The eastern counties* by D I Gordon, Newton Abbott, David and Charles, 1968, chs 5 and 6 outline Cambridge main and branch-line links.

⁷⁸ See, for example, M A Crowther, *The workhouse system, 1834–1929*, London, Methuen, 1983; Pickstone, op. cit., note 7 above; S Cherry, *Medical services and the hospitals in Britain, 1860–1939*, Cambridge University Press, 1986; F F S Driver, 'The English bastille: dimensions of the workhouse system, 1834–1884', unpublished PhD thesis, University of Cambridge, 1988; G Bock and P Thane (eds), *Maternity and gender politics: women and the rise of the European welfare states, 1880s–1950s*, London, Routledge, 1991; H Hendrick, *Child welfare: England, 1872–1989*, London, Routledge, 1994; F Crompton, *Workhouse children*, Thrupp, Stroud, Sutton Publishing, 1997.

⁷⁹ Richardson, op. cit., note 4 above, pp. 409–28.

⁸⁰ E T Hurren, 'Late-Victorian "Alder Heys": Why have we failed to learn the historical lessons about medical research?', May 2003, www.historyandpolicy.org new *History Policy* Internet journal edited by M Daunton and S Szreter, St John's College, Cambridge, launched at the Institute of Historical Research, May 2002, copy available at University College Northampton.

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