

AUSTRALIAN MEDICAL STUDENTS IN 19TH CENTURY SCOTLAND

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In a recent volume, I discussed the migration of Australian medical students to Scotland between 1850-1900.¹ The focus was on nineteenth century Australian medical education, the reasons why Australian students sought an overseas alternative, the migrants' religious and social background, the type of training they received in Scotland, and their academic achievements. The present offering concentrates on the social context in which these young Antipodean visitors to Scotland found themselves.

Australians who wished to acquire medical qualifications before the establishment of the country's tertiary teaching institutions in the second half of the nineteenth century had to obtain them overseas. The vast majority gravitated to the United Kingdom, where there were eighteen different licensing bodies, of varying standard, status and cost. London, Dublin and Glasgow had their attractions and advocates but by far the most popular destination was Edinburgh, which by the close of the eighteenth century had superseded Leyden in Holland as the leading centre of medical education in Europe. Students were attracted to the Scottish capital from the farthest reaches of the empire and beyond, drawn there by Enlightenment-inspired teachers and by the quality of the systematic and clinical instruction they offered. The absence of religious tests and barriers, the co-existence of extra-mural and university schools, the relatively low cost, as well as the eclecticism, of the courses, appealed to disparate groups of students, and contributed to Edinburgh's ascendancy.

Stature apart, there were other 'push' and 'pull' factors at work. The refusal of the United Kingdom government to recognise colonial medical degrees until 1890 placed them under 'a ban of inferiority', in the words of one Melbourne teacher.² There was a great consciousness of distance in the nineteenth century and Australasian isolation was seen as a major professional disadvantage for colonial teachers and students alike. It was conceded that the most able and enterprising would always be drawn to Europe, to observe and learn from the leaders of the profession there and to pit themselves intellectually against European students.³ Edinburgh and the other Scottish medical schools had obvious attractions for the children of emigrant Presbyterian clergymen, doctors and others who had themselves qualified in Scotland or were otherwise linked with the country.

THE FIRST AUSTRALIAN MEDICAL SCHOOLS

The establishment of medical schools at the universities of Melbourne, Sydney and Adelaide in 1862, 1883 and 1885 respectively, did little to impede the migratory quest for overseas education and qualifications. Indeed, the perceived inadequacies and difficulties of the native institutions encouraged many to do so. The Sydney medical school was the most immediately successful of the three

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nineteenth century Australian teaching institutions. This was almost entirely due to the determination and energy of T. P. Anderson Stuart, dean of its faculty of medicine. He was a ruthless autocrat who overrode all opposition. He recruited staff and students, devised a curriculum and launched a building programme, which was completed in 1889. By the close of the nineteenth century he had placed the Sydney medical school on a firm foundation.⁴

By then, and in sharp contrast, the Adelaide school was in considerable disarray. It had encountered many crises, financial and otherwise, since its establishment just over a decade earlier. The South Australian government was unsympathetic and relations between the government and the school's component parts, the university and the Adelaide Hospital, were fraught. Matters came to a head in the mid-1890s over claims of political jobbery in the filling of a nursing vacancy, a dispute which eventually involved the city's medical and political communities as well as the population generally. Finally, in March 1896, the government sacked the hospital board and the honorary staff resigned in sympathy. It was to be another six years before they returned and thus, between 1896 and 1902, all clinical teaching at the Adelaide Hospital was suspended.⁵

Several of the students transferred to the University of Melbourne to complete their courses. They soon discovered that Australia's oldest medical school had its own problems, the irresolution of which continued to attract adverse attention. At various times the Melbourne curriculum had been criticised for being too literary, too scientific and too technical, and more generally for being too exacting, exhausting and overcrowded. Basically, it was badly structured and major revisions in 1887 and 1900 failed to rectify the problem.⁶ The course itself was regarded by many as inordinately long and expensive.

Furthermore, students were dissatisfied with the quality of this extravagantly-priced instruction, particularly that offered by clinical teachers at the Melbourne Hospital. Few, if any, complaints were levelled at the hospital's facilities or at the amount and variety of clinical material available there.⁷ The difficulties arose from the ill-defined, unsympathetic, often hostile, relationship that existed between the university and the hospital. This was a feature of all Australian and New Zealand schools, with the exception of Sydney; in Melbourne, however, the problem was more pronounced and intractable. In his presidential address to the Fourth Intercolonial Medical Congress of Australasia, F. C. Batchelor of Dunedin claimed that the relationship between the University of Melbourne and its teaching hospital was the worst of its kind in the British empire.⁸

Students also complained about the excessive number and difficulty of examinations and the structural rigidity of the examination system generally.⁹ Unlike the United Kingdom, where three professional examinations were the norm, Melbourne students had to pass a test at the end of each of the five years of the curriculum. These examinations were notoriously difficult and were characterised by a high failure rate. One hundred and fifty four of the 208 Melbourne medical students who transferred to Scotland in the later nineteenth century did so after failing their Melbourne examinations, many of them repeatedly. Forty-two had failed in first year, 19 in second year, 29 in third year, 24 in fourth year and no less than 40 in fifth year. In February 1885 all ten final year students who had been referred from the previous November were 'plucked', a result which was described by one unhappy individual as 'wholesale slaughter' and one which entered Melbourne student folklore as 'the fifth year fiasco'. On this occasion,

nine of the ten students were rejected in theory and practice of medicine. The students claimed that the fault was not theirs, complaining to the university council that the questions were ambiguous and so vaguely worded as to make it almost impossible to decide what the examiners required.¹⁰ In addition, they argued, it was unlikely that ten students who had been successful in four annual examinations could have been so utterly ignorant of their work as the results seemed to suggest.

STUDENTS' BACKGROUND

At least 758 Australians undertook some or all of their medical education in Scotland between 1850 and 1900. Of these 334 were born in Victoria, 178 in New South Wales and 153 in the other Australian colonies; another 22 designated Australia as their place of birth, while the remaining 71 were born overseas but were brought up in Australia. A considerable number had received some medical training, at the universities of Sydney, Adelaide, Dunedin and Otago, but especially at Melbourne, prior to embarking for Scotland. Some had acquired practical experience by attending hospitals in the different Australian colonies. A number had studied in London and Dublin and at least one each in Manchester and Germany. Slightly more than five per cent of the total had graduated in arts or science before turning to medicine. Twenty-six were arts graduates of the University of Sydney and another thirteen held non-medical degrees from the universities of Melbourne, Adelaide, Edinburgh, Cambridge and London.¹¹

Up to and including February term 1881, the University of Melbourne kept detailed records of all students, noting, *inter alia*, the candidate's last place of education, his religion and his father's occupation. After this date the last two items were no longer recorded, much to the chagrin of the social historian. One hundred and twenty three students who matriculated at Melbourne before the change in regulations sought medical qualifications in Scotland. Fifteen claimed they were the sons of gentlemen, the occupational entries for two were blank, while the fathers of another seven had died. Forty different occupations, with the emphasis on the professions and commerce, were listed for the remaining ninety-nine individuals. Forty per cent of the 123 matriculates were Anglicans, twenty-eight per cent were Presbyterians and twenty per cent were members of the minor Protestant churches. Catholics accounted for eleven per cent and Jews for less than two per cent of the total.¹² This sample is probably a reasonable reflection of the religious persuasions of Melbourne medical students up to the beginning of the 1880s. It seems likely that the ratio of Catholics was considerably higher in the closing decades of the century, given the increased numbers of practitioners with distinctly Irish names who registered with the Medical Board of Victoria.¹³

The available evidence suggests that the general body of Australian medical students in Scotland were recruited from the same social and religious base. Of the 63 Australians who attended the University of Glasgow, for instance, 18 were the sons of medical practitioners, while another eight were the children of clergymen, a combined total of 37 per cent of the whole.¹⁴ Information from a variety of other sources, mainly obituaries, trade directories and medical registers, provided the paternal occupations of another 102 Australians with Scottish qualifications. Very few trades were represented. The emphasis was on the professions and was strongly middle class. More than a quarter of the students

were the offspring of medical practitioners, further evidence that the profession was strongly regenerative within families.

The problems encountered by McDowell and Watt, when they attempted to establish the social background of students attending the University of Dublin,¹⁵ were also a feature of the Melbourne and Glasgow samples. Only one son listed what his deceased father's occupation had been. This was in the Melbourne matriculation record of George Alexander Armstrong, who stated that his late father, Sir Andrew Armstrong, Bart., had been MP for Queen's County in Ireland. All the others simply inserted the words dead or deceased. The term merchant, like businessman currently, is so vague as to render it virtually useless. It is difficult to distinguish between different titles relating to land. Pastoralist, squatter, landowner and farmer have different interpretations and connotations, but were often used interchangeably. The term 'gentleman' conjures up a certain social image, but the designation is elastic and was frequently used to obfuscate rather than illuminate social origins. McDowell and Watt defined a gentleman as an individual of independent means who did not adopt a profession or a trade.¹⁶ This was not the universal Australian usage. Archibald Grant Black described his father, James, as a baker in the Melbourne matriculation registers and variously in those of the University of Glasgow, where returns had to be completed for each year of attendance, as a baker, gentleman and proprietor.¹⁷ James Spittal Buchanan of Burn Bank, Berwick, Victoria, portrayed his father in different years as a dairy farmer, breeder and gentleman.¹⁸ This tendency to dissemble was not uncommon and may have reflected social pressures on colonial students in the United Kingdom. However, it does not obviate the fact, if the Victorian data are representative, that Australian students who entered the medical profession with Scottish qualifications were largely middle class and Protestant.

EARLY IMPRESSIONS

The majority of Australian medical students going to Europe travelled as fee paying passengers, although some obtained free passage and occasionally a modest recompense for acting as medical officers on cargo boats. Most disembarked in London, before travelling north by train. Newcomers to Edinburgh were immediately struck by the proliferation of medical students there. Astonishing and legionary were among the epithets used to describe the concourse.¹⁹ 'They are of all nations and colours', wrote one, 'niggers by the score and any number of Australians'.²⁰ R. J. A. Berry, the future professor of anatomy at the university of Melbourne, reminisced that when he arrived in Edinburgh in the summer of 1886, the city was literally over-run with students of all nationalities. They came from England, Scotland, Ireland and Wales. There were West Indians, black men from the Sudan, princes from India and yellow men from China and Japan, he wrote, as well as Australians, South Africans and New Zealanders, and even one or two Americans from Buffalo and California. Berry claimed that 'Edinburgh was then the most cosmopolitan university in the world'.²¹

The Scottish weather was often a brutal shock to those who were used to antipodean sunshine. One Australian medical student who arrived in Edinburgh in the spring of 1892 described the climate as 'simply awful', incessant snow and slush greeting him for the first month of his stay. The capital provided him with many contrasts and contradictions. Edinburgh impressed as an architecturally striking but very dirty city, on account of the coal dust and smuts that seemed to

settle on everything and everybody. The extent and frequency of church attendance on Sundays and the Sabbatarian dourness of the populace seemed strangely at odds with the nature of some of the paintings in the city's galleries, works by 'Titian, Rembrandt and Co.', which, according to this particular commentator, 'would raise "Cain" if shown in Melbourne'. The second pietistic incongruity was the sight of youths of all ages urinating in the gutters: 'Queer custom', he noted cryptically, 'but nobody seems to mind'.²²

STUDENT LIFE

Claude Garton, the eponymous hero of a contemporary novel on Edinburgh university life, arrived at Waverley Station, after a first class journey from the south. The author, Thomas James Henry, had come to Edinburgh in 1880 as a nineteen year old medical student from Sydney. He qualified in 1886, before returning to a rural practice in New South Wales. His first fictional work, *The awful and ethical allegory of Deuteronomy Smith*, was published anonymously in Edinburgh six years later. This was a short, spirited account of the life history of a medical student. It was charming, appealing and immensely successful, being reprinted no less than fourteen times. Thus encouraged, Henry embarked on his first full length novel, *Claude Garton, A story of Dunburgh University*, which was published in 1897. In the novel's opening sequences, as the north-bound train bore Claude to his medical studies in Edinburgh, he encountered Wilberforce Mostyn, a hardbitten, worldly-wise Australian medical student of two years standing, celebrated, as he explained with his tongue planted firmly in his cheek, for his intense devotion to his work. The two established an instant rapport. Mostyn impressed his younger companion with his detailed grasp of the minutiae of the medical curriculum and entertained him with a vast store of more or less apocryphal anecdotes concerning the medical faculty. According to Mostyn, there were three types of medical students, 'readers', 'wasters' and 'chronics'. The vast majority of Dunburgh students fell into the first category. 'Wasters' were primarily concerned with public house billiard tournaments, the seduction of shop assistants, and their own raffish status. However, they rarely abandoned their responsibilities entirely and generally managed to complete their course of studies.²³ 'Chronics' were those mossy evergreens who failed their examinations repeatedly. They were characterised by the London evangelical magazine, the *British Weekly*, as those who divided their time impartially between bed, billiards and bars and who were as close to graduating after seven years at university as they were when they first matriculated. They were depicted as 'men close upon thirty years of age, bloated in appearance, rubicund in complexion, besotted in expression'. Many colonial medical students were 'chronics', according to the writer.

These allegations were made in the third of a six-part series on student life at the University of Edinburgh. The anonymous scribe asserted that students from the colonies were rowdier, more disruptive and more self-indulgent than those from 'the mother-country'. They were usually the ringleaders in theatre rows and fully twenty per cent of all students who were annually hauled before the police courts were either South Africans or Australians. Colonial students were invariably involved in brawls and drink-related pranks. According to the writer, the colonial student was instantly recognisable:

The young gentleman who rises at four o'clock in the afternoon, having previously imbibed a dozen bottles of Bass in bed may be safely put down as a colonial; the individual whose sole ambition appears to be the possession of the finest and largest collection of bell-handles is undoubtedly a colonial; the student who distinguishes himself in the police court by giving a name unknown in the university, and obviously suited only for temporary purposes, may be at once supposed to be a colonial. And, above all, the student who marries his landlady's daughter, or a barmaid from one of the popular drinking resorts, is rarely one of British parentage... For one marriage of an Edinburgh student of English or Scotch nationality, there are ten cases in which the bridegroom is a colonial.

The writer argued that in non-collegiate, non-residential, universities like Edinburgh, there was greater licence for self-indulgence. In his opinion, colonial students were particularly vulnerable to all forms of temptation. They were young and immature, generally no more than eighteen or nineteen years old on arrival, and without a parental hand to guide or restrain them. Colonials usually had more money and better credit than British students, so it was hardly surprising that many of them became 'chronics'.²⁴

There can be little doubt that this intemperate attack on colonial students sprang from some personal animus rather than from any widespread anti-colonial prejudice among Scots generally. The citizens of Edinburgh had been exposed to medical students of many nationalities for more than a century and were very much aware of the economic advantages accruing from their presence. Some degree of imperial condescension was inevitable. Robert Scot Skirving, for instance, complained that many of the Australians he encountered as a medical student in Edinburgh 'suffered badly from parochial conceit, a damnable accent, and a somewhat aggressive manner, or lack of manners'.²⁵ Colonials were not the only ones to attract the odium of this bigoted and altogether reprehensible individual, who, ironically, was to spend most of his long life in Sydney. His sharp tongue and stiletto pen were turned on everyone and everything outside his own immediate patrician circle, class and faith.²⁶ The unrepresentativeness of such generic attacks was clearly demonstrated in the unequivocal response to the allegations in the *British Weekly*. In a short leading article, the *British Medical Journal* described the charges as 'extraordinary' and pointed out the gross unfairness of depicting any group of students in so indiscriminate a manner. Far from being rowdy and licentious, the editor contended, colonial students had been to the forefront of Edinburgh's academic and social life for many years.²⁷

An investigative committee with representatives from New South Wales, Victoria and New Zealand was appointed to answer the charges. They requested the editor of the offending journal either to substantiate or withdraw the allegations. As there was no response, they launched an inquiry of their own. They discovered that the average age of colonial students in Edinburgh was twenty-two and not eighteen or nineteen, as suggested. There was only one who might be termed a 'chronic', and they were unable to find a single instance of a socially unacceptable marriage by an Australasian. The police avowed that the charges were groundless, while the theatre owners stated that colonials were more orderly than other students in Edinburgh. The university senate praised their general behaviour and their teachers considered that their academic achievements were above average.²⁸

The activities complained of in the *British Weekly* did exist, but were no more representative of Edinburgh student life than they were of any other university or large medical school, nor could they be attributed exclusively to any one national

or racial group. There are numerous examples of general student misbehaviour that could be cited. For instance, the duration and aftermath of Edinburgh's triennial rectorial elections were notoriously riotous occasions, commonly involving pitched battles between the opposing Liberal and Conservative factions, in which fisticuffs, flour-bombs and peashooters were indiscriminately and gaily employed.²⁹ T. P. Anderson Stuart recounted how the religious service that marked the opening of the 1875 academic year at the University of Edinburgh had to be abandoned because of the appalling behaviour of those attending. Students arrived with sticks, trumpets, drums and other noise-making devices. Missiles were hurled about with reckless abandon, one of them striking the professor of divinity in the face, as he recited the opening prayer. According to Anderson Stuart, the proceedings were a mockery and a scandal and this was the last occasion on which such a service was held.³⁰

STUDENT ACCOMMODATION

The non-collegiate, non-residential aspect of Scottish universities has already been mentioned. It was customary for students who had neither family nor relatives living in the city to board in the vicinity of the university. In a brief and superficial review of Scottish university life, the popular magazine 'Tit-bits' suggested that these lodgings were not overly clean and contained only the most basic of comforts.³¹ On the other hand, they were inexpensive, an indispensable consideration for many students, particularly those from a humble Scottish background.³² There was more than a suggestion of truth in the remarks concerning hygiene and comfort. R. J. A. Berry recorded that when he first arrived in Edinburgh, he found his lodgings even more surprising than his landlady's unintelligibility of speech. He paid ten shillings a week for a small, windowless, airless, unlighted bedroom, which opened off a slightly larger sitting room. The latter was adorned with a representation of John Knox admonishing Mary, Queen of Scots, one of two pictures common to all Scottish boarding houses of the time. The other, which was only slightly less popular, represented Calvin and the inevitable hell-fire. There was neither bathroom nor bath, a feature shared by all of his subsequent Edinburgh habitations. 'It was all very gloomy', he concluded.³³

In Glasgow, in the early 1860s, single accommodation near the university could be rented for five or six shillings a week, while the tariff for shared apartments, consisting of a sitting room and a bedroom, ranged from eight to eleven shillings.³⁴ For a modest outlay, student lodgings in Scotland's university centres generally offered basic comforts and even more basic sanitary facilities. They were presided over by what Berry called 'that sub-species of womanhood, the Scottish landlady',³⁵ an individual whose culinary skills were as modest as the lodgings she provided.³⁶

STUDENT CLUBS

There was a tendency in Edinburgh to blame dissipation and excess on a lack of corporate facilities and to regard the pre-University Union era as a social dark age. Berry stated that when he arrived in the city in May 1886 there were no social amenities of any description, a void which left himself and his fellow first year medical students as isolated as Robinson Crusoe or his prototype, Alexander Selkirk. Under these circumstances, it was not surprising that so many medical

students never completed the course. 'They went totally and completely to the devil', he wrote.³⁷ The establishment of the University Union in 1889 had a revolutionary impact. 'It changed, as if by magic, the whole tenor of the life and living conditions of all those who had neither home nor relatives in the capital city of Scotland', Berry testified. 'It almost civilised us. We were no longer dependent on the landlady's incinerated chops and two bullet-like potatoes; we could now enjoy in the company of our fellows a decent table d'hôte dinner for two shillings'.³⁸

This needs to be taken with as large a pinch of salt as Berry no doubt added to his indigestible and burned comestibles. It was a gross exaggeration to suggest, as he and several others had done, that pre-union Edinburgh was a social wasteland. According to T. J. Henry, whose stay in the city overlapped Berry's and whose reminiscences were of a more immediate stamp, there was an almost endless choice of recreational activities. The university boasted numerous cultural and sporting, social and patriotic clubs, as well as religious, temperance and philanthropic associations.³⁹ Moreover, the students' union had existed in embryonic form for more than a decade. A students' club, with substantial dining and recreational facilities, and even a post office, was established close to the university in the autumn of 1876. 'Social evenings' were instituted and a piano installed. The membership soon reached 450, almost half of whom were regular diners, two course meals being provided at a cost of one shilling.⁴⁰ Here, T. P. Anderson Stuart stuffed himself on a quotidian diet of 'corned beef and potatoes, boiled turnips and steamed pudding'.⁴¹ He introduced a similar scheme at the University of Sydney some years later, arranging for a local caterer to supply a moderately priced, hot lunch, an initiative greatly appreciated by the students.⁴²

Edinburgh Australasian Club.

This predated the embryonic students' union by two years, originating in the tendency of early arrivals from the Antipodes to come together for companionship and social outings. It became customary for Australasian students to fete each year's medical graduates with a celebratory dinner. These informal arrangements took on a more tangible shape in 1874 when the Australasian Association was launched to provide a social nexus in Edinburgh. As the original membership of about twenty expanded, the club outgrew its premises in George Square. A successful appeal for funds in the colonies resulted in the acquisition of more commodious accommodation, appropriately enough in Melbourne Place. The club rooms (Figs 1 and 2) were comfortably furnished with easy chairs and writing tables, as well as a billiard table, which was given pride of place. Photographs of Australian sporting heroes and a transplanted, but ailing, gum-tree served to remind the exiles of home. The reading room contained copies of the Edinburgh dailies, Australian and New Zealand weeklies, popular magazines and periodicals, as well as the leading scientific and medical journals.⁴³ Fig 3 shows the members of the club in 1910 and Fig. 4 the cricket XI.

The Australasian club quickly established itself as one of the convivial hubs of Edinburgh student life, noted particularly for its frequent entertainments and annual dinners.⁴⁴ However, it did not have universal approbation and appears to have ruffled many a Calvinistic feather. In May 1892, a recent arrival from Melbourne stated that the club did not have a good name among outsiders and



FIGURE 1

Library. (Reproduced from *The Student*, July 8, 1910)

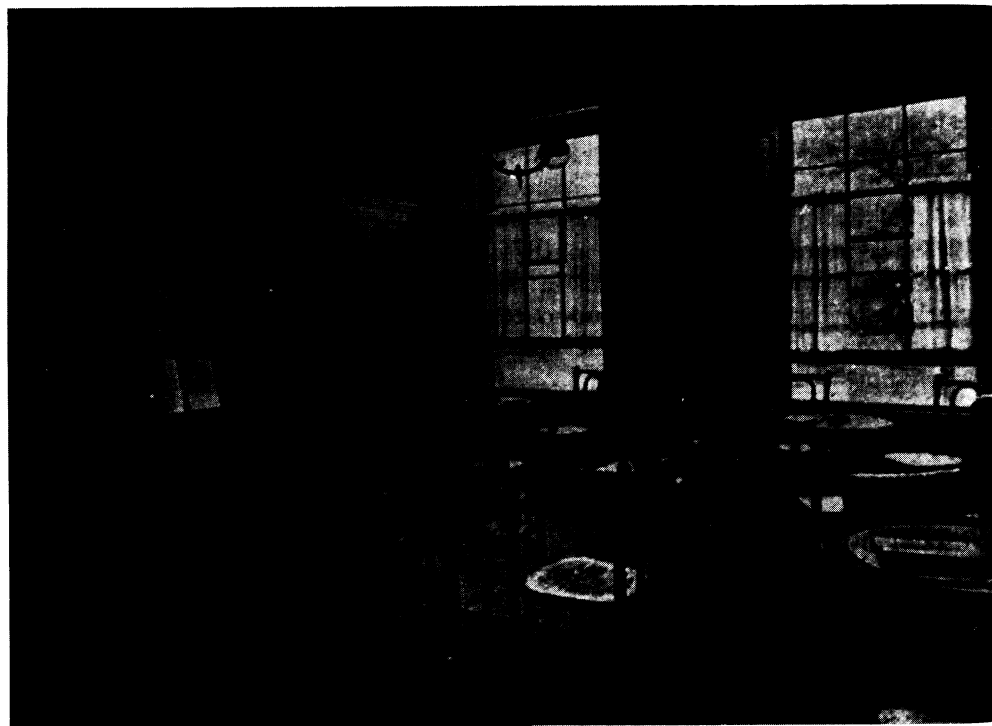


FIGURE 2

Sitting-room. (Reproduced from *The Student*, July 8, 1910)

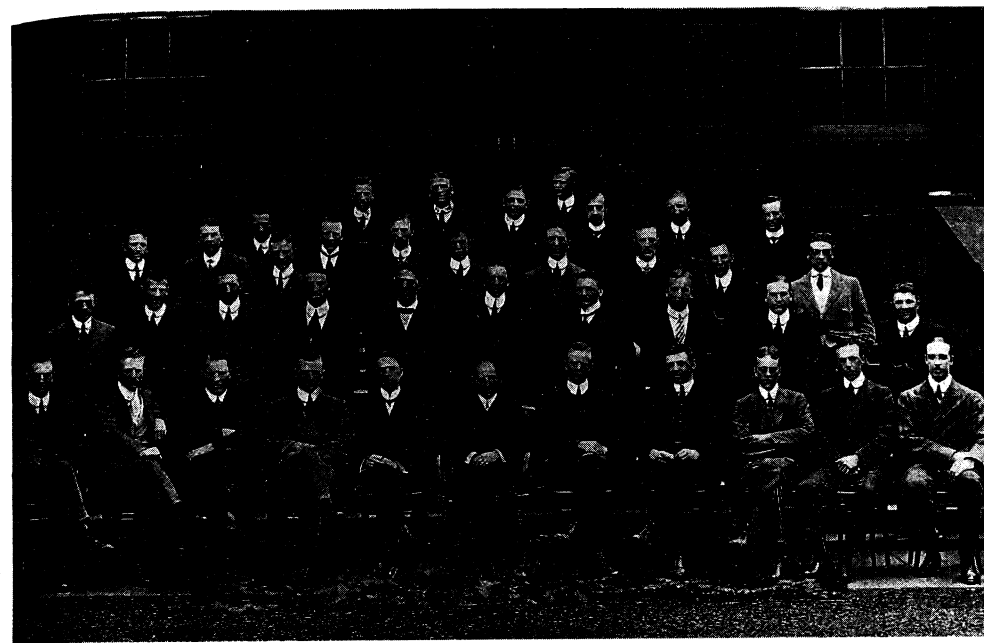


FIGURE 3

Australian Club Members. Front row: Hedley B Thomson MD, DE Stoddart, P McNab, D Watson, Joint Hon Sec, JF Sweeny, General Manager, Professor Gerald Leighton MD, FRS, President, HF Holinden, Joint Hon Sec, KG Hearne, Maxwell Ramsay, WH Johnston BA, YH Gordon MB. (Reproduced from *The Student*, July 8, 1910)



FIGURE 4

Australian Club Cricket XI, 1910. (Reproduced from *The Student*, July 8, 1910)

noted the curious fact that not a single Tasmanian was a member.⁴⁵ Herbert M. Moran, a Sydney medical graduate and captain of the 1908 touring Australian rugby football team, was an outspoken critic of the club. After the team had completed their sporting fixtures, Moran journeyed north to Edinburgh to work for his surgical fellowship. In his first volume of autobiography, written many years later, he stated that the Australasian club's reputation was not very good and that those who frequented it most were better known for hard drinking than for scholarship. Moran was a staunch Catholic of Irish parentage and his account of the Edinburgh club is strongly reminiscent of that published many years earlier in the evangelical *British Weekly*. His is a classic description of 'chronics' in all their philistine glory, sottish, boastful, self-deceptive. But, to suggest, as he did, that a few atypical members were representative of Australasian medical students in Edinburgh, was erroneous and mischievous, a response that was fuelled less by any sense of objectivity than by a prudish, subjective bias.⁴⁶

SPORTING ACHIEVEMENTS

Given Moran's sporting interests and accomplishments, it seems strange that he was so unsympathetic to a club in which sport played such a prominent role. Sol Jervois Aarons, sometime secretary of the Australasian club, was a noted and versatile athlete, a university blue in swimming, thrice champion of the Forth and winner of the Warrender Club shield on three successive occasions.⁴⁷ Several Australians were renowned for their prowess on the tennis court, notably Arthur Benjamin Carvosso who, with his doubles' partner, was a beaten finalist in the 1889 Scottish open championship.⁴⁸ In the late 1880s and early 1890s, the Australasian first eleven at the University of Edinburgh ranked among Scotland's premier cricket sides, due largely to the abilities of Ronald J. Pope, who was a member of the MCC, and who was chosen to play for the Australian team that toured England in 1886.⁴⁹ Australian and New Zealand students were also prominent in the other team sport of rugby football. Herbert Henry Bullmore was one of the forwards in the 1900-1 university fifteen which contained one Irish and seven Scottish international players, as well as two final trialists. In the following year he was 'capped' for Scotland against Ireland. Alec Boswell Timms played for and captained Scotland against the other home unions on several occasions between 1901-5. Less than four years after his arrival in Edinburgh, Reggie Morrison was described as the most versatile sportsman in Britain, one of the best all-rounders that Scotland had ever produced. Morrison's Australian birth, upbringing and nationality were conveniently ignored, not the first time that truth was sacrificed to chauvinism. This former Australian-rules footballer played rugby union for the first time in the winter of 1883, as one of the half backs in the university's third fifteen, and was chosen for the Scottish team just over two years later.

Sporting participation and success involved the students with the wider community. This helped to break down social barriers and brought people of different backgrounds and nationalities into closer association. In addition, sport helped to dispel any tendencies to introversion among overseas students and to erode anti-colonial prejudice and antipathy among the host society.

ACADEMIC ACHIEVEMENTS

Visiting Australian students were impressed by Edinburgh academic life and by

the quality of the medical education they received there, attributing the school's success to the competing university and extra-mural teachers and to the practicality of their approach. In particular, Australian students responded positively to clinical instruction in the Royal Infirmary of Edinburgh and to the systematic teaching of anatomy, pathology, forensic medicine and hygiene. The professionalism and thoroughness of Edinburgh medical education engendered similar attitudes in many Australian students. The majority worked extremely hard, some simply to qualify and commence practice, others to win honours and prizes, or to enhance career prospects. G. E. Morrison was fired by a different ambition, to complete his course in the shortest time possible so that he might pursue his love of adventure by travelling round the world.⁵⁰

Of the 758 Australians who studied medicine in Scotland in the second half of the nineteenth century, 671 qualified there, with another nine obtaining English or North American licences. This represented a success rate of almost 90 per cent. University graduates outnumbered licentiates, 355 to 325. Of the latter, 213 obtained the Triple Qualification, fifty-five the Double Qualification and the remaining forty-eight a single licence from one or other of the three Scottish corporations. Two hundred and sixty two of the 355 graduates, or 39 per cent of all Australians who qualified in Scotland, obtained their degrees from the university of Edinburgh, many graduating with honours and several as prize winners. Another fifty-five graduated from Glasgow, thirty-seven from Aberdeen and one from St Andrews. A Scottish MD was obtained by 102, 15 as a primary qualification and the remainder as a postgraduate one. Several others obtained MDs from other British, Irish and Continental universities.

Eighteen Australian women were licensed in Scotland. Five graduated from the University of Edinburgh,⁵¹ two from Glasgow⁵² and the remainder obtained the Triple Qualification of the Scottish corporations,⁵³ among them Dagmar Berne, the first Australian woman to enrol as a medical student at an Australian university. She encountered so much practical opposition at the university of Sydney, not least at the hands of her examiners, that she despaired of ever qualifying there. After several frustrating years, she transferred to the London School of Medicine for Women in 1890 and obtained her diplomas in Scotland three years later.⁵⁴ Of the eleven Australian women who obtained the Triple Qualification, five had studied at the London School of Medicine for Women, two in the United States and one at the University of Berne. The others had attended a combination of Australian and Scottish schools.

The tendency among newly qualified Australians, whether male or female, was to acquire further experience in British hospitals, as ships' surgeons or by attending European classes and clinics, especially in Berlin, Vienna and Paris. Dublin for midwifery training and London were other favoured destinations.⁵⁵ A handful of Scottish-qualified Australians remained permanently in Britain but the vast majority returned home to practice within a few years of qualifying, carrying in their mental baggage the ideas, theories and practices, as well as other, less tangible, social and cultural influences to which they had been exposed in Scotland and elsewhere, and which they in turn, as teachers and practitioners, were to disseminate throughout the colonies.

INFLUENCE ON AUSTRALIAN MEDICAL SCHOOLS

The three nineteenth century Australian medical schools were fashioned after

those in Scotland. They were underpinned by the same educational philosophy, that of producing competent general practitioners. They were university rather than hospital based and Scottish-trained teachers, more specifically Edinburgh graduates, were attached to all three. Scottish influence was most keenly felt at the Sydney school, which was consciously created on the Edinburgh model by Anderson Stuart. He surrounded himself with a coterie of his own student contemporaries, among them James Graham, Alexander MacCormick, J. T. Wilson and Robert Scot Skirving. Anderson Stuart did all in his power to further their professional careers, exercising patronage like a Renaissance potentate. He encouraged Wilson to apply for the demonstratorship in anatomy in 1886, observing, 'We are five of us here now, all young Edinburgh fellows and ... with our influence and help we could push you into *anything*'.⁵⁶

Anderson Stuart and his Edinburgh clique in Sydney, John Williams, James Jamieson and R. J. A. Berry in Melbourne, among others, gave a strong Scottish flavour to the evolving Australian medical schools. As they expanded and overcame their initial difficulties students were attracted to them in ever increasing numbers. The Melbourne, Sydney and Adelaide schools created their own platforms and gradually established their own reputations. By the beginning of the twentieth century they had begun to take on a distinctly Australian flavour and by the time of the Great War the vast majority of Australians looked to their own universities for their medical education. Just as in the American colonies and in Canada at an earlier time, so now in Australia. The colonial offspring had drawn professional inspiration from their *alma mater* but no longer needed suckling from the imperial breast.

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- ⁵ Elmslie Ronald G., Archibald Watson and the first fifteen years of the medical school at the Adelaide University. In: Attwood Harold, Kenny Geoffrey. Festschrift for Kenneth Fitzpatrick Rusell. Melbourne: Queensberry Hill Press, 45-58.
- ⁶ Royal Commission on the University of Melbourne: Minutes of evidence on administration, teaching work, and government of the University of Melbourne. Victoria, 1903, 2nd s., no. 20, 12697, 180, 254-9, 263, 269; Neild, Medical school of the Melbourne University, 13-14.
- ⁷ See, for instance, *AMJ*, May 1874, 157; Black, J. G. to the editor; Coats Joseph. Notes on land and sea, being the diary of a journey to New Zealand, Australia, Ceylon and Egypt, October 1897 till April 1898. Glasgow 1898, 165-6.
- ⁸ Batchelor FC. Present and prospective conditions of medical education. *Intercolonial Medical Journal of Australasia*, 20 March 1896, 168-9.

- ⁹ *Speculum*, May 1885, 20-1; *Australasian Medical Gazette*, May 1885, 198; *Age*, 6 April 1889. For *Speculum*, see, Attwood Harold. To Speculate on *Speculum*', *Chiron: Journal of the University of Melbourne Medical Society*, 1988, 16-19.
- ¹⁰ *Speculum*, May 1885, 20-1, Infelix to the Editor; *AMG*, May 1885, 198.
- ¹¹ Student records, University of Edinburgh, Special Collections; University of Glasgow, Archives; Royal College of Physicians, Edinburgh, Archives; Royal College of Surgeons, Edinburgh, Archives; Royal College of Physicians and Surgeons, Glasgow, Archives.
- ¹² Student records, University of Melbourne, Archives.
- ¹³ Geary Laurence M. Australia felix: Irish doctors in nineteenth-century Victoria. In: O'Sullivan Patrick. The Irish in the new communities. Leicester and London: Leicester University Press 1992, 162-179; Victorian doctors in the nineteenth century—data. Microfiche available from the Department of History and Philosophy of Science, University of Melbourne, Parkville, Vic. 3053, Australia.
- ¹⁴ Student Records, University of Glasgow, Archives.
- ¹⁵ McDowell R.B, Watt D.A. Trinity College Dublin, 1592-1952. Cambridge: Cambridge University Press 1982, 506-7.
- ¹⁶ McDowell and Watt, *Trinity College Dublin*, 507.
- ¹⁷ Black's Student Record, University of Melbourne and University of Glasgow, Archives.
- ¹⁸ Buchanan's Student Record, University of Glasgow, Archives.
- ¹⁹ *Speculum*, July 1887, 24 July 1892, 23-4.
- ²⁰ *Speculum*, July 1892, 23-4.
- ²¹ Berry RJA. Chance and circumstance, typescript autobiography, 24. (There is a copy in Edinburgh University library.)
- ²² *Speculum*, July 1892, 24-5.
- ²³ Henry Thomas James. Claude Garton: A Story of Dunburgh University. Edinburgh 1897, 8-12, 60.
- ²⁴ *British Weekly*, 29 March 1889, 349-50. The entire series appeared on 15, 22, 29 March, 5, 12, 26 April 1889, 317-8, 334, 349-50, 366, 382, 413-4.
- ²⁵ Macintosh Ann. Memoirs of Dr Robert Scot Skirving, 1859-1956. Sydney, 1988, 106.
- ²⁶ His grand-daughter, in editing his memoirs for publication, had the good sense to omit some of his more slanderous utterances, which can be seen in his private papers in the Mitchel Library, Sydney.
- ²⁷ *British Medical Journal*, 15, 29 June 1889, 1369, 1477. It is hereafter cited as *BMJ*.
- ²⁸ Report of the Australasians in reply to the articles of the *British Weekly* on Student Edinburgh. I have been unable to locate a copy of the pamphlet, but the findings were published in *Speculum*, December 1889, 27-9.
- ²⁹ Macpherson Ian. The life of the Student Community. In: Logan Turner A. History of the University of Edinburgh, 1883-1933. Edinburgh, 1933, 346-50.
- ³⁰ Epps William. Anderson Stuart, MD. Sydney, 1922, 27.
- ³¹ *Tit-Bits*, 10 December 1887.
- ³² See, for instance, Macintosh, Scot Skirving, 92. See also, *Aberdeen University Gazette*, 16 January 1874, 54-5.
- ³³ Berry, Chance and circumstance, 27.
- ³⁴ *Medical Times and Gazette*, 29 Nov. 1862, 579.
- ³⁵ Berry, Chance and circumstance, 27.
- ³⁶ See, for instance, *BMJ*, 26 May 1877, 660.
- ³⁷ Berry, Chance and circumstance, 26-7.
- ³⁸ Berry, Chance and circumstance, 44.
- ³⁹ Henry, Claude Garton, 43.
- ⁴⁰ *Students' Journal*, quoted in *BMJ*, 26 May 1877, 660-1.
- ⁴¹ Epps, Anderson Stuart, 32.
- ⁴² *Hermes*, 28 May 1895, 11; 17 July 1895, 5.
- ⁴³ *Melbourne University Review*, October 1890; 7: 192-5. See also, *Speculum*, May 1887, 34. The Edinburgh Australasian club was so successful that a similar venture was launched in London in May 1891, *Speculum*, September 1892, 87-8.
- ⁴⁴ *Student*, 1890, 64, 1891-2, 156, 1892-3, 123, 1898-9, 151. The *Student* appeared for the first time on 8 November 1887. It was founded and edited by Robert Cochrane Buist, a Dundee-born medical student at the University of Edinburgh. After Buist graduated in 1888, the *Student* was taken over by the Student Representative Council. See Turner. History of the University of

Edinburgh, xv-xviii; Guthrie, Douglas. Some Edinburgh students' magazines of the nineteenth century', *University of Edinburgh Journal*, 1965-6; 22: 159.

⁴⁵ *Speculum*, July 1892, 24.

⁴⁶ Moran Herbert M. *Viewless winds: being the recollections and digressions of an Australian surgeon*. London, 1939, 81-7.

⁴⁷ *Student*, 1894-5, 326.

⁴⁸ *Student*, 1889-90, 168-9.

⁴⁹ *Student*, 1889-90, 44, 168. See also, *Melbourne University Review*, October 1890, 194-5.

⁵⁰ George Ernest Morrison Papers, Ms 312, Mitchel Library, Sydney. Reminiscences dictated by George Ernest Morrison to his wife, 13.

⁵¹ Agnes Elizabeth Lloyd Bennett, Mary Booth, Mary Brown, Irene Barbara Cunningham, Katie Welton Hogg.

⁵² Martha Hunter Scott, Jesse Marie Stewart.

⁵³ Dagmar Berne, Eileen Josephine Fitzgerald, Laura Elizabeth Forster, Stella Irene Flora Greaves, Lillias Hamilton, Elizabeth M. E. Kerr Harris, May Harris, Amy Gordon Lillington, Ethel Adelaide Orchard, Stella Mary Taylor, Ellen Maude Wood.

⁵⁴ For Berne, see Skirving R. Scott. Dagmar Berne: the first woman student in the medical school of the University of Sydney, *MJA*, 14 October 1944, 407-9. For womens' struggle for medical education in Australia, see, *inter alia*, *AMJ*, July 1865, 233-5; Ross I. Younger. The advent of women into medicine, *MJA*, 30 May 1953, 777-8; Little Marjory. Some pioneer women of the University of Sydney, *MJA*, 13 September 1958, 341-3; Webb, Nina. Women and the medical school, in Young, Sefton and Webb, Centenary book of the University of Sydney faculty of medicine, 218-237; Dyason Diana. James Jamieson and the ladies. In: Attwood Harold, Home R. W. Patients, practitioners and techniques. Melbourne, 1985, 1-18; Neve M. Hutton. This mad folly! The history of Australia's pioneer women doctors. Sydney: Library of Australian History 1980.

⁵⁵ For the European dimension, see 188; *Speculum*, May 1887, 31-3; Macintosh, Scot Skirving, 102-6; Ryan Charles Snodgrass. Under the Red Crescent: adventures of an English surgeon with the Turkish army at Plevna and Erzeroum, 1877-8. London, 1897, 3. For Ryan, see Australian dictionary of biography, 11: 491-2. His description of himself as an English surgeon is instructive in the colonial context. He was born of an Irish father and Australian mother in Victoria and was educated in Melbourne and Edinburgh, where he qualified. His closest English connection appears to have been his maternal grandfather, who was a Londoner.

⁵⁶ T. P. Anderson Stuart to J. T. Wilson, 11/4/1886, 15/8/1886, J. T. Wilson papers, correspondence 1884-1897, University of Sydney Archives, P 162. See also, letter of application and testimonials of James T. Wilson for the Challis professorship of anatomy in the University of Sydney, Wilson to the chancellor, vice-chancellor and fellows of the senate of the University of Sydney, 31/10/1889, William Turner to Stuart, 20/12/1886, Stuart to the chancellor, vice-chancellor and fellows of the senate of the University of Sydney, 20/11/1889, J. T. Wilson papers, University of Sydney Archives, P 162/35/6/2. In the light of this correspondence it is difficult to see how Young can sustain his claim that the Edinburgh influence on the Sydney school was no greater than that on either Melbourne or Dunedin, Young, Sefton and Webb, Centenary Book of the University of Sydney Faculty of Medicine, 105-7, 182 n.8. For Wilson's seminal influence on Australian anatomy, see Blunt Michael J., Morison Patricia. Australian anatomy in the 1920s. A celebration of the twenty-first anniversary of the foundation of the anatomical society of Australia and New Zealand. NP, 1983, 1-6; Smith SA. The life and work of James Thomas Wilson, Bulletin of the Post-Graduate Committee in Medicine, University of Sydney. 1950; 6: 1-12; *Medical Journal of Australia*, 29 December 1945, 512-6.

THALES TO GALEN: A BRIEF JOURNEY THROUGH RATIONAL MEDICAL PHILOSOPHY IN ANCIENT GREECE

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Part III: Galenic Medicine

ALEXANDRIAN ERA

With the deaths of Hippocrates and Aristotle and the concomitant decline of the medical schools of Cos and Athens, Alexandria became the new centre for scientific and medical excellence. However, Athens was still to retain some of its scholastic pre-eminence in the field of philosophy. The three great philosophical schools in the fourth century BC Rhetoric (founded by Isocrates),¹ the Academy (Plato) and the Lyceum (Aristotle), were to pass with only the Academy, along with the rival current philosophies of the Stoics and Epicureans, surviving until the sixth century AD when they were closed by the Emperor Justinian. Before turning to Alexandria it is worth discussing the achievements of one of the last eminent Athenian medical scholars, Diocles of Carystes.^{2, 3} Although none of his treatises are extant he is credited with many diligent and rational observations on human embryology, having examined fetuses at various stages of gestation.

The empire of Alexander the Great was divided by his generals after his death in 323BC. Macedonia came under the control of Antigonous the grandson of Alexander's commander of the same name; in Asia Seleucus ruled the former Persian Empire, and in Africa Egypt came under the control of Ptolemy. The fusion of Hellenistic, European and Egyptian cultures under the Ptolemies created fertile grounds in which a cosmopolitan and intellectual community flourished. Alexandria has often been regarded as the centre of medical innovation in antiquity, free of influence from the Greek mainland's social and religious taboos. The Ptolemies offered an environment conducive to free rational medical research. Even Ptolemy Philadelphus broke with the social taboos of mainland Greece with marriage to his sister, Arisonë II. In Alexandria the Ptolemies' patronage of the Temple of the Muses (the *Museum*) attracted distinguished scientific and medical scholars to this vibrant port. The Museum also possessed one of antiquities most magnificent libraries, eclipsing those of Peisistratus in Athens, Polycrates in Samos, and the ancient libraries of Cappadocia, Babylonia and Jerusalem. The library possessed the complete treatises of Aristotle and the official texts of the Athenian tragedies, as well as rooms and equipment for the practical aspects of science, medicine and philology.⁴ Two of the most notable contributors to this period were Herophilus and Erasistratus.

Herophilus.

Herophilus studied at Cos under Praxagoras prior to research in Alexandria.⁵ We know from Celsus (*De Medicina* Ch23) that he vivisected criminals from the prisons of Alexandria, the only recorded description of this practice in antiquity.^{6, 7} It has been argued by some scholars that the Alexandrines knowledge of anatomy, including that of Herophilus, was a product of ancient

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