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Australia and its orthopaedic association

Discovery

James Cook (Fig. 1) discovered New Zealand in 1769, then Eastern Australia in 1770 and claimed them (from the Maoris and Australian Aborigines) for England. Thus, he opened the way for English-speaking people to settle in the Southern Pacific. He was killed by natives in what later became part of the USA, Hawaii.

James Cook was a brilliant sailor, mathematician, hydrographic, diarist and leader he also appreciated the importance of medical science. He always carried ships' doctors and by his insistence on a diet that included green vegetables, he never lost a man from Scurvy. Unfortunately, the early English settlers in Australia did not have the benefit of sufficiently good medical care.

Beginnings

1788

The first English settlement of Australia began in 1788, some years after Captain Cook's death in 1779. It was basically to rid the London area of the surfeit of convicts who were then transported to Australia. Subsequent voyages from England to Australia brought more convicts, although sentences for transportation to Australia were often for trivial offences. Gradually, the number of free settlers migrating to Australia increased and the huge land mass was occupied by English speaking people, much to the Aboriginal people's disadvantage.

First doctors

1790

The original English settlement in Australia was at Sydney Cove and the earliest surgery would have been practiced in the Rocks area of the settlement. The first doctor

to practice in Australia was Surgeon-General John White (1756–1832), who was Irish-born and probably the first Irishman to set foot on Australian soil. He explored the area around Sydney Harbour and wrote an important de-

Fig. 1 James Cook

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Fig. 2 South wing of the Rum hospital, completed in 1816, now part of Sydney hospital

scription of the first English voyage to Australia entitled “Journal of a Voyage to New South Wales”, published in London in 1790. He described the near-starvation which beset the new colony, before and after the arrival of the second fleet in 1790. White disliked his Australian experiences and stayed only six years by which time other naval and military Surgeons had arrived and commenced practice in a rudimentary fashion in the rough conditions and harsh environment of what was originally a penal settlement.

1810

Governor Lachlan Macquarie (arriving in 1810) was the first to start a building programme in the new colony and his first building of note was a hospital. Built by contractors, who were given a trading monopoly in Rum as part of the contract, it was not surprising that this was nicknamed “the Rum Hospital” (Fig. 2). Completed in 1816, two of its original three blocks survive to the present day in Macquarie Street, Sydney. These buildings form part of Sydney Hospital and can be viewed as one walks up Macquarie Street past the State Government House.

1827

Penal out-stations had been established from Sydney in the early 19th Century and the whole of Australia claimed by Britain by 1827. The other States were formed between 1829 and 1859. Major hospitals in each of the capitals of these states were founded between 1850 and 1870 and most were initially staffed by doctors trained in Britain.

First orthopaedists

1901

Robert Hamilton Russell (1860–1933) (Fig. 3) was born in Kent, England and migrated to Australia in 1889, having been trained at King’s College Hospital where he was Lord Lister’s last house surgeon. He settled in the State of Victoria and was appointed to the Children’s Hospital in Melbourne in 1892 and Alfred Hospital in 1901 (the year of Federation of Australian states into the Commonwealth of Australia). Hamilton Russell remained at Alfred Hospital until his retirement in 1920, having a local and international reputation as a respected and intuitive surgeon who contributed to the understanding of inguinal hernia and to the treatment of femoral shaft fractures with his own form of balanced traction, still known in most parts of the English-speaking Orthopaedic World as Hamilton Russell traction (Fig. 4). Not so well known was his musical prowess. He was described by his friend Percy Grainger, the Australian composer, as a brilliant pianist. Hamilton Russell was also the first in Australia to support the formation of a College of Surgeons.

William Colin McKenzie 1877 to 1938 was born in Kilmore, Victoria, Australia and graduated from the University of Melbourne. He was appointed to the Children’s Hospital, Melbourne, in 1901 and subsequently studied abroad with Oscar Vulpius in Heidelberg and Hugh Owen Thomas and Robert Jones in Liverpool before returning to Melbourne in 1904 during a severe epidemic of poliomyelitis. He delivered his principals of muscular rest and subsequent re-education and wrote many papers on this subject. In later life, he established the Colin McKenzie Wildlife Sanctuary, Healesville, Victoria. McKenzie, by now Sir Colin, was made the first Honorary Member of the Australian Orthopaedic

Fig. 3 Robert Hamilton Russell

Association at its first Annual General Meeting in March 1938, shortly before his death.

Hugh Trumble (1894–1962) graduated in Medicine in Melbourne and was another Alfred Hospital surgeon who made pioneering advances in orthopaedics. He developed ischiofemoral arthrodesis for the treatment of tuberculosis of the hip and wrote extensively on the sur-

gery of tuberculosis of the spine and chest. He was known to be an accomplished orthopaedic, general, thoracic and neuro-surgeon but eventually confined himself to neuro-surgery.

Robert (later Sir Robert) Wade (1874–1954) was one of the first general surgeons in Sydney who practiced orthopaedic surgery. He was the Chief General Surgeon at Royal Alexandra Hospital for Children in the 1920's having been Director of Orthopaedics for the Australian Army during World War I. He was actually a protégé of Sir Charles Clubbe (1854–1932) who was an English medical graduate, but migrated to Australia in 1882, and was appointed to the Sydney Hospital for Sick Children, which became the Royal Alexandra Hospital for Children.

First specialists

The first surgeon to confine himself to the practice of Orthopaedic Surgery in Australia was neither British, nor Australian trained, but German, Maximillian Herz (1876–1948) (Fig. 5). He graduated in Medicine in 1898 from the University of Munich and worked with Schanz in Dresden and Lorenz in Vienna. He specialised in club feet, C.D.H. and spinal tuberculosis. He accompanied a New Zealand man who had sought treatment in Germany back to New Zealand in 1903 and began working in hospitals in New Zealand, including Christchurch where he met an Australian woman whom he married in 1905. He then practiced in Auckland, New Zealand, for five years before coming to Sydney in 1910. He had already written a book about New Zealand.

1911

In 1911, Max Herz was appointed Honorary Orthopaedic Surgeon at St. Vincent's Hospital Sydney but at the outbreak of World War I, in 1914, was immediately interned

Fig. 4 Hamilton Russell traction

Fig. 5 Maximilian Herz

as an enemy alien for six years. Recommendations were made for his deportation but insistent demands from his ex-patients led to his release in 1920. He resumed practice but was boycotted by many doctors and barred from hospital so he opened his own private hospital and worked there until he died. He was never even considered for admission to the Australian Orthopaedic Association.

1915

Norman Royle (1888–1944) was born near Sydney and graduated in Medicine from the University of Sydney in 1914. He joined the staff of Lewisham Hospital in 1915 and became an Honorary Consultant at the Prince of Wales Hospital, Randwick. He experimented on the sympathetic nervous system and had a particular interest in voluntary muscle control. He was a foundation member and the first Vice President of the A.O.A. He was also a member of the British Orthopaedic Association and the first Australian Corresponding Member of the American Academy of Orthopaedic Surgeons.

Australian Orthopaedics

The influence of British surgeons, particularly from Liverpool and London, was the major one on Australian orthopaedics. In particular, the influence of Sir Robert Jones was huge, especially considering that he never visited Australia. So many of the early Australian Orthopaedic Surgeons trained in Liverpool, taking the master degree in Orthopaedic Surgery (M.Ch. Orth.) established at the suggestion of Sir Robert Jones. Indeed, the first to receive this degree was an Australian, Edmund Vance, in 1925. The next two “M.Ch. Orth.” Graduates were Reginald Watson-Jones and Bryan McFarland in 1926. Many Australian Orthopaedic Surgeons came to Liverpool after this and some of them followed their degree year by training at the Shropshire Orthopaedic Hospital, later the Robert Jones and Agnes Hunt Hospital, Oswestry. Other Australians trained in different centres in Britain, notably, London, Oxford and Edinburgh. In the main, these surgeons returned to capital city Teaching Hospitals and thus Orthopaedic Departments were established.

In Sydney an orthopaedic unit was established at Royal Prince Alfred Hospital in 1920 with Lennox Teece as head. Teece was the first Australian-born surgeon to specialise totally in Orthopaedics in Australia. Denis Glissan was appointed as Orthopaedic Surgeon at St. Vincent’s Hospital, Sydney at about this time (Max Herz not being re-appointed after World War I). A Department of Orthopaedics was set up at Royal North Shore Hospital in 1920, and the following year, Hugh Poate and Stuart Scougall were appointed as Orthopaedic Surgeons. C. Nigel Smith was appointed to the head of the department of Orthopaedics Surgery at Sydney Hospital in 1923 and Norman Royle had already been appointed at Lewisham and Prince of Wales Hospitals. Edmund Vance, the first M.Ch. Orth., established an Orthopaedic Department at St. George Hospital but left within a year to concentrate his work at Royal South Sydney Hospital.

In Melbourne, the development of orthopaedic units in Teaching Hospitals took place in the 1930’s, about a decade later than in Sydney. The Children’s Hospital had John Colquhoun and Eric Price, the Royal Melbourne Charles Littlejohn and St. Vincent’s Tom King. Later Charles Hembrow was appointed at the Alfred Hospital, where he had worked as Hamilton Russell’s last House surgeon.

Formation of a college

1926

The first suggestion for a college specifically for surgeons in Australia and New Zealand came in 1920 from the then Professor of Surgery at the University of Otago in Dunedin, New Zealand, Louis Barnett. Robert Hamilton Russell supported him in Australia, but it was not until 1924 that Dr. William Mayo and Dr. Franklin Martin visited Melbourne and subsequently arranged invitations

for some Australian surgeons to become fellows of the American Collage of Surgeons that interest was rekindled. In 1926, a letter signed by three Melbourne Surgeons, Sir George Syme, Hugh Devine and Robert Hamilton Russell was sent to all Senior Surgeons and that year was founded the College of Surgeons of Australasia. Hamilton Russell, Royle, Teece and Glissan were foundations Fellows of the College, the headquarters of which were established in Melbourne. Royal Charter was granted in 1930, becoming the Royal Australasian College of Surgeons (R.A.C.S.).

Other practicing orthopaedic surgeons did not wish to become Fellows of the new College and some actively opposed it.

Foundation of the Australian orthopaedic association

1936

Ten years after the foundation of the Royal Australasian College of Surgeons, a group of ten Sydney orthopaedic surgeons met to discuss the formation of an Australian Orthopaedic Association. This took place on the 6th October, 1936 at 135 Macquarie Street, Sydney, near the old "rum" Hospital. Further meetings were held in November and December 1936 but the first formal meeting, at which foundation members were declared, office-bearers elected and a constitution adopted was on 27th April 1937, again at Macquarie Street. The first President was Edmund Vance, first Secretary Alex Hamilton, first Editorial Secretary Lawrence Macdonald and first Treasurer Harold Sweetapple. The first Annual General Meeting was held on 21st March, 1938, in Sydney. Early Annual General Meetings alternated between Sydney and Melbourne.

The Executive of the A.O.A worked hard to established the new association and arranged meetings, invited and appointed active members, honorary members and corresponding members from other English-speaking Orthopaedic Associations. Most activity, including Annual General Meetings, declined during World War II and the 5th Annual General Meeting was not held until mid 1945.

1946

In 1946, the Executive of the Australian Orthopaedic Association arranged the appointment of Regional Committees in the Various States. The network spread as Australian Orthopaedic Surgeons were returning from active service both in Australia and overseas during the War years and specialization in surgery developed. Annual General Meetings were held in Brisbane in 1946, Melbourne in 1947, Perth in 1948, Sydney in 1949 and Adelaide in 1950. In 1951, the Annual General Meeting was held in the Royal Australasian College of Surgeons' building in Melbourne and the guest of honour was Sir

Fig. 6 Jewel of Office

Reginald Watson-Jones, Sims Commonwealth Professor that year.

1952

The following year the combined meeting of Orthopaedic Associations of the English-speaking world was held in London (in June 1952, Just 47 years ago) under the Presidency of Sir Reginald Watson-Jones. The Australian Orthopaedic Association had Joined the other associations in England and on that occasion received, with the other associations, their own treasured Jewel of Office from Queen Elizabeth (Fig. 6).

1962

In that year an Annual General Meeting was also held Sydney and meetings have taken place annually since. In 1962, the first combined meeting of the Australian and New Zealand Orthopaedic Association took place and these combined meetings are now held every five years, alternating between Australia and New Zealand.

The association and the college (meetings, training and examinations)

The A.O.A. developed in the 1950's and 1960's as the population of Australia increased and the number of medical graduates kept pace. The specialty of Orthopaedics and Traumatology was now well established. Still, the majority of Australian Orthopaedic Surgeons studied their specialty overseas having been introduced to it by established Australian, but overseas trained, Orthopaedic Surgeons.

1961

From 1957, the Executive of the Australian Orthopaedic Association had many discussions on the formation of a Training Programme in Australia. In 1961, Eric Price presented a report to the Annual General Meeting suggesting that:

- (a) Election to full membership of the A.O.A. be subject to completion of an approved course of training;
- (b) that the course comprise:
  - (i) Basic Surgical Training (culminating in general surgical fellowship);
  - (ii) Special orthopaedic training (two years spent in practical orthopaedics and research in the form of an approved programme at approved posts);
- (c) that a special sub committee be appointed:
  - (i) to draft regulations relating to training
  - (ii) to approve projected courses of training and to give credit for training already completed;
  - (iii) to register approved posts for special orthopaedic training which may exist in Australia;
  - (iv) to advise and assist young surgeons concerning orthopaedic training.

Unfortunately Eric Price died very soon afterwards, but his suggestions were taken up especially by Peter Williams in Melbourne and Murray Maxwell and Tom Claffey in Sydney. The first official trainees were appointed in Sydney in 1965 and a little later in Melbourne.

1965

The committee to select candidates was set up and this later became known as the Board of Studies in Orthopaedics and Trauma. In 1965, Peter Williams produced a 'white paper' on training and this became the basis of subsequent training programmes. He recommended three and a half years recognised training in Orthopaedic Surgery. He was also elected as the first Censor in Chief of the A.O.A. in 1967 and became Chairman of the Federal Training Committee, which consisted of one representative from each of the training programmes. In 1974, the Boards of Studies in separate states of Australia became sub-committees of the Federal Training Committee.

1967

The International Accreditation Council was formed after discussions at the Fifth Combined Meeting of the Orthopaedic Associations of the English-speaking world in Sydney in 1970, superbly organised by Hugh Barry who had also been greatly interested in the development of a training programme. Peter Williams represented the A.O.A. on this Council and later became Chairman. Reciprocal recognition of training time and approved posts was agreed. Arrangements were made with several U.K. orthopaedic centres for Registrars to spend part of their training out of Australia. Posts were made available in Edinburgh, Royal National Orthopaedic in London, Oswestry, Harlow Wood and later in Bristol and Oxford. Later still, openings were provided in Auckland, Toronto and London (Ontario, Canada).

Relations between the A.O.A. and the R.A.C.S. have been strained on occasions since 1936 when, not unnaturally, the relatively youthful R.A.C.S. felt that a group of Specialist Surgeons were about to break away. Gradually, however, the two organisations have compromised and even worked together. In particular, a close association has developed and been maintained regarding training and examination of Orthopaedic Surgeons in Australia. The A.O.A. recommendations on the period of specialised training (Peter Williams) were accepted and finally adopted in 1971 and a Specialist's Surgical Training Committee formed. New regulations governing the Examination for Fellowship were set, together with a syllabus for advanced training in Orthopaedic Surgery. This led to the formation of a Board of Orthopaedic Surgery within the R.A.C.S., the A.O.A. having four representatives including the Censor-in-Chief.

1970

Academic orthopaedics had a slow start in Australia and the first full Professor of Orthopaedics was appointed only in 1970. Tom Taylor, who had the benefit of an academic training in Edinburgh and Oxford, as well as Seat-

tle, was appointed as Professor of Orthopaedic Surgery within the University of Sydney based at the Royal North Shore Hospital. In 1972, Ronald Huckstep was appointed Professor of Orthopaedic Surgery in the University of New South Wales, based at Prince of Wales Hospital. Both of these professorial chairs were endowed initially by W.A. Hugh-Smith, a past President of the A.O.A. Subsequently, Chairs of Orthopaedic Surgery have been established at the University of Queensland and the University of Melbourne, based at the Royal Children's Hospital; the Royal Melbourne Hospital, and in Western Australia and South Australia.

Training, examination and accreditation: present situation

The A.O.A. acknowledges the R.A.C.S. to be the sole examining and accrediting body for surgery in Australia. Examiners are appointed by the Executive Council of the R.A.C.S. on the recommendation of the A.O.A. Board.

The A.O.A. is responsible for the training of orthopaedic surgeons in Australia, although the R.A.C.S. is responsible for the accreditation of hospitals and training posts. However, the College is advised by the Training and Membership Committee of the A.O.A. via the Board of Orthopaedic Surgery, the Australian members of which are nominated by the A.O.A., the Director being Chairman.

Each State has its own Training Programme, although each is responsible to the Training and Membership Committee. Trainees are selected by the Branch Training and Membership Committee and the four year programme consists of attachment to a different teaching hospital post each year. One year of pure research may be counted in that four years. A programme of lectures, clinico-pathological meetings and clinical meetings is conducted in each state.

The final examination for the Fellowship of R.A.C.S. in Orthopaedic Surgery may be taken during the fourth year of training but that Fellowship is provisional only until the full four years are completed. It is now a requirement that each trainee complete at least one research project (either clinical or basic) and present a paper at an accredited meeting before Fellowship can be conferred.

The Registrars in training conduct their own Annual Scientific Meeting and have done so since 1976.

Manpower

In 1978 the establishment of Training Programmes, a subcommittee of the Federal Training Committee called the Manpower and Forward Planning Committee, was established with a Chairman and a representative from each state. Its purpose was (and remains) to maintain a yearly census of orthopaedic manpower in Australia, to make a realistic evaluation of the number of trainee reg-

istrar posts to fit manpower requirements and to identify problem areas especially in the distribution of properly trained orthopaedic surgeons both in cities and country towns. The committee is now known as the Workforce Sub-committee of A.O.A.

Continuing Orthopaedic Education

Continuing orthopaedic education was addressed almost as soon as the Training Programmes were established and, again, it was Peter Williams who proposed a plan to the Federal Executive, following which a Continuing Education Committee was established in 1974 with Peter Williams as its first Chairman. The first such committee was composed of Melbourne Orthopaedic Surgeons and they arranged meetings in both Melbourne and other cities. The important post of Chairman of this Committee has changed every four years with rotation between States. The Chairman is appointed by the Federal Executive and becomes an ex-officio member of Executive. He forms his own Committee of colleagues in his own state, and arranges an average of three meetings per year in various States, appointing a local convenor for each

Fig. 7 Hugh Barry

meeting, addressing a particular topic, on which relevant orthopaedic specialists from overseas are invited to speak.

Continuing education is related to the issue of quality assurance including re-certification and its documentation. Recertification of all Australian Surgeons is the responsibility of the R.A.C.S.. The recertification program devised by the A.O.A. has been accepted by and endorsed by the R.A.C.S.

Such matters were not a problem for James Cook who continued to educate both himself and thousands of others by his pioneering epic voyages of discovery, so thoroughly documented over 200 years ago. He was an example to us all in our quest for continuing education, which is the basis for the protection of standards of orthopaedic surgical practice.

Footnote

Hugh Barry 1912–1994 (Fig. 7) was awarded the medal of the Order of Australia for service to Orthopaedic Surgery. He was a Rhodes Scholar, worked with Lord Florey in Oxford and completed his medical degree at the London Hospital. He served with the Australian Army Medical Corps in World War II and 1947 was appointed to

Royal Prince Alfred Hospital in Sydney. Subsequently, he became Head of the Orthopaedic Department in 1964, retiring in 1970. He maintained a strong interest in both the R.A.C.S. and the A.O.A. and did much towards establishing the Training Programme and developing the relationship between the Association and the College, Particularly with respect to training and examining.

Hugh Barry had a special interest in Paget's disease of bone and wrote a monograph on the subject. He also wrote "Orthopaedics in Australia", a history of the Australian Orthopaedic Association, which was published in 1983. The author of this history, Mr Michael Fogarty, 2nd Vice President of the Australian Orthopaedic Association and members of the organising committee of Sicut 99 Sydney, Doctors Neal Thomson, Stephen Quain, James O'Brien and Anthony Kwa are indebted to Hugh Barry for much of the information which was gleaned from his excellent book.

Statistics

Australian population	19 Million
Orthopaedic surgeons in the A.O.A.	960
Orthopaedic surgeons in active practice	710
These figures are approximate	