

HAROLD GILLIES AND ARCHIBALD McINDOE

Archibald McIndoe is famous as a skilled surgeon, a natural leader and a compassionate man who could by his personality alone prepare despairing patients for the long period of surgery ahead and convince them they would be able to lead full and active lives again.

By contrast the first World War work of Harold Gillies is virtually unknown, but in 1949 McIndoe himself said of him "Apart from creating a speciality Gillies' scientific contributions have been many.... On the purely technical side of reconstructive surgery he has been prolific in ideas and he has enriched every subject he has attacked". An American plastic surgeon in 1957 wrote "Gillies almost single-handedly developed a branch of surgery during two world wars and in civilian practice, training a school of followers who spread over the world to carry on the precepts of this pioneer in the budding speciality of plastic surgery".

Harold Delf Gillies was born in Dunedin, New Zealand on the 17th June, 1882. He studied medicine at Gonville and Caius College, Cambridge and in 1910 became a fellow of the Royal College of Surgeons. McIndoe was his cousin, 18 years his junior who, for a period, worked with him, and so developed his own surgical skills and also learned to understand the psychological needs of the patients.

At the outbreak of the First World War Gillies was an Ear, Nose and Throat specialist at St Bartholomew's Hospital. He went to France in 1915 with the British Red Cross, attached to the army as a general surgeon, and then became aware of work being done by two Frenchmen, Charles Valadier and Hippolyte Morestin, who specialised in dentistry and jaw operations.

Gillies was so inspired by what he had learnt in France that he returned to England "bursting with enthusiasm" about the possibilities of plastic surgery. It was timely – the new weapons of war caused new types of wounds and medical staff had to learn new procedures and face the appalling situation of men arriving in large numbers, all needing urgent attention.

Fortunately Gillies was able to convince Colonel Sir William Arbuthnot Lane and 200 beds were allocated at the Cambridge Military Hospital, Aldershot. To ensure patients came straight to him Gillies tried to convince the War Office that facially wounded men should have special tags attached to them. It seems no one was interested so Gillies spent £10 on labels at a stationers, addressed them to himself and took them to the War Office with instructions for distribution. Amazingly this worked and men arrived duly labelled.

Under Gillies knowledge deepened quickly – how to repair empty eye sockets, reconstruct eyelids, replace lost noses, reconstruct missing jaws and the development of the tubed pedicle technique where tissue was only partially removed from its original site so retaining a blood supply during transfer to another site thus allowing large quantities of still-living skin to be moved from one part of the body to another. He introduced on the spot dental collaboration, clinical photography and 'continuation of treatment beds' which relieved the nursing staff, increased operation output and, above all, gave a sense of freedom to patients well enough to be up and about between stages of treatment.

Gillies was also very conscious of the aesthetic side – he was always very anxious to restore a patient's appearance to be as near as possible to how they looked previously. He was also aware of the psychological needs, the problems of depression, the fear of the outside world and showed that same compassion as McIndoe and the same strong personality that inspired the men being treated.

As the demand overwhelmed supply at Aldershot Gillies contacted the Chief of Army Medical Staff, Sir Alfred Keogh who was still sceptical about plastic surgery but Gillies pressed the point that correcting disfigurement would decrease the claims against the Government for compensation – a very pointed political argument as the Government made no financial allowance available for facial wounds on the grounds that such wounds 'did not prevent manual productivity'. Gillies was responsible for having this reversed, pointing out the wounds could mean a man needing perhaps four years of treatment, even then having to return for further work and that certain work would be dangerous for him to undertake. He also pointed out the psychological problems the men could experience. This resulted in the pension finally being paid.

Arbuthnot, meanwhile, had become convinced by the work he had seen at Aldershot and persuaded the Government of the need for larger premises.

The chosen site was 100 acres at Frognal House, Sidcup, Kent. It had previously been an estate of over 1000 acres with the Jacobean house owned by the Masham-Townshend family. Generous funds for the purchase were provided by the National Relief Fund and committees of the British Red Cross and Order of St John. The building started in February 1917 and the Queen's Hospital, later Queen Mary's Hospital, opened in August 1917, designed specifically as a plastic surgery unit. In its first year it treated almost 12,000 patients.

It had one particular advantage – it was close to Dover with a good link to France so men could be transported with as little delay as possible. As soon as it was open men started to be moved from the Cambridge Hospital.

The mansion house provided accommodation for the medical and nursing staff and the studio of Henry Tonks of the Slade School of Art. He had become a Fellow of the Royal College of Surgeons in 1888 before changing to art and his work for Gillies involved sketches for medical purposes, charting the transition from 'before' to 'after' treatment.

He enlisted in the RAMC like Gillies and became one his closest colleagues, doing a series of coloured drawings and working in the theatre making lightning sketches of the operation.

Apart from supervising every step of the creation of the surgical unit Gillies also drew a small team together. Apart from Tonks there was John Edwards, a sculptor who had another studio where he made plaster casts from Tonks' drawings; Archie Lane, a dental technician who made up models of missing jaws; Kathleen Scott, the widow of Robert Scott who sculpted ears, noses, cheeks and chins onto models of the damaged faces; Rubens Wade who developed a method of giving anaesthesia to a patient sitting up thus reducing the risk of airways becoming blocked and Ivan Magill who devised a means of giving pain relief direct into the windpipe – by no means a small innovation because it was known that a surgeon could fall asleep breathing in a patient's ether. The team members Gillies drew together were remarkable in many ways and particularly in the area of pooling expertise at a time when so many medical men were very conscious of their reputation and the surgeon reigned supreme. His wife was one of the nurses.

The main building had 1000 beds and a hutted hospital had to be built among the trees with 320 beds. 200 additional beds had to be added for Commonwealth men with the Canadian, Australian and New Zealand contingents all having their own teams of artists, dental technicians, modellers and photographers. Later American casualties started to arrive and were split among the various units. Sidcup was the centre of plastic surgery but it was not the only hospital where such treatment was available which gives a picture of the number of men who were suffering from these dreadful wounds.

It must be pointed out that Gillies did not 'invent' plastic surgery. Like all inventions and discoveries there were others working towards this end but Gillies established it as a branch of surgery, developing so many new techniques that he is considered as 'the father of plastic surgery'.

Patients, the surgical teams and the nurses all came from various parts of Britain and the Commonwealth providing an interesting and invigorating mix.

At the Cambridge Hospital Gillies had learned that convalescence was essential. Operating too quickly could cause tissue waste. Longer intervals between operations were needed but Cambridge did not have the facilities and patients had to be located in various other hospitals in the locality. In the new hospital Gillies could provide the 'continuation of treatment beds' mentioned previously.

There was one early lesson Gillies learned from a tragic failure. A pilot arrived with horrific facial burns and Gillies attempted to take a massive flap of skin from his chest. Unfortunately the graft became infected and as a result of further surgery the pilot died of heart failure. This made Gillies realise that all plastic surgery had to be done in small stages.

Because many patients were unable to eat properly and all needed a high protein diet, an egg nog was a staple diet but in war time milk and eggs were in short supply. However, the spacious grounds of the hospital meant it could have its own cows and chickens and also the caring for these could be part of the rehabilitation process for men between operations or recovering prior to release. The grounds also provided other farm work and

workshops for estate carpentry, electric work etc. and there were other classes such as languages but in 1920 a remarkable civilian voluntarily gave his time – Mr W.G. Baker. He introduced a considerable number of classes which show how much people wanted to help to ease the inevitable depression: Toy-making, dentistry, woodwork, commercial subjects, beadwork, poultry farming, boat repairing, French, hair-dressing, cinema operating, book binding, horticulture, draughtsmanship, watch and clock repairing, photography, motor engineering, coachbuilding. One of the favourite classes was toy making and the results were sold in The Brownies Shop in Orchard Street, off Oxford Street. Baker was highly regarded by the patients and was awarded an OBE. Over 5000 men attended his classes and he continued to receive thousands of letters from them in later years.

Between August 1917 when the hospital opened to the 30th June 1921, 11,752 major operations were performed. There were 714 officers and 8,025 other ranks. Of these 73 officers and 1,260 other ranks came from the Dominions. The hospital closed in October 1929 and was sold to the London County Council for £29,000 for use as a convalescent hospital when it was renamed Queen Mary's Hospital.

There is a vast archive and its survival is remarkable. First, some of it was found in New Zealand where it was stored in a garage, having been rescued by a dental surgeon, then more was found in England in two filing cabinets in the photography department at Roehampton Hospital. The archivist was Andrew Bamji who is now the Gillies Archivist of the British Association of Plastic Reconstruction & Aesthetic Surgery.

For a while the whole archive was held at Queen Mary's Hospital then, during some NHS reorganisation, it was dispersed. Sections can be found at the National Archives, the Wellcome Trust, the Imperial War Museum, the Royal College of Surgeons as well as some still at the Queen Mary's Hospital.

Gillies was considered by many to be one of the three finest surgeons of the time and his knighthood in 1930 was considered long overdue. He and his colleague, Kilner, from Sidcup were the only two plastic surgery specialists in England in the 30s and then at the outbreak of the Second World War they were joined by Rainsford Mowlem and Archibald McIndoe. Gillies became an advisor to the armed forces and with Kelsey Fry was responsible for organising the plastic surgery units. Because of the threat from bombing the idea of having a hospital with everything in the one place was abandoned and the service was split. Gillies established the main Army centre at Rooksdown House, Park Prewett Hospital, Basingstoke; Mowlem went to St Albans; Kilner to Roehampton and McIndoe to the RAF designated hospital at the Queen Victoria Hospital, East Grinstead.

The puzzle has been how the work at East Grinstead came to overshadow Gillies to such an extent that he has become virtually unknown.

Part of the problem may have been his own personality. McIndoe was an extravert. He welcomed the press. He felt that drawing attention to the hospital also helped the patients to look outwards and the town of East Grinstead, as we know, played its part in the rehabilitation of the men. Gillies was reserved and turned away from attention. The other important point is that the patients at East Grinstead were mainly Battle of Briton pilots and the public saw them fighting overhead and were very conscious of

them. The patients at Basingstoke were mainly army and their battles had been fought far away from the public gaze.

This nurse's account of Rooksdown House and the Queen Victoria Hospital is interesting. It was written by Mair Jenkins who worked at both units, beginning her plastic surgery nursing career at East Grinstead in 1945 and then moving to Rooksdown in 1947.

She recalls that when she left East Grinstead "it was with the cheerful accompaniment 'Off to the rival firm then?' There was the familiar re-phrasing of that question when I went to Rooksdown – but it was in good spirit. To me, they were both marvellous places and it is a privilege to be able to recall that for a while one was part of the scene".

The she refers to the public houses – "The East Grinstead unit had lively haunts such as the White Hall, Cider Mill and the Smuggler's Cave a little off the beaten track. At Rooksdown there was the wonderful favourite, the Mucky Duck."

She feels that the assimilation of the men into the community was a feature of all the units and describes the people of Gloucester and a Mr & Mrs Campbell "who ran the Railway Inn helping those who could not eat or drink properly back into circulation".

From this it would appear there were no problems between the units themselves and Harold Gillies certainly returned to private practice, so perhaps he was content to fade into the background but it is hoped the display boards and this Fact Sheet have helped to show that he was a remarkable man.

However that may be, there is no doubt that it was an extraordinary family who produced two men of the calibre of Gillies and Archibald McIndoe.

They both died in 1960, the Gillies at the age of 78 and McIndoe at 60.

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Sources:National ArchivesImperial War MuseumWellcome TrustHansardBritish Newspaper ArchivesQueen Mary's Hospital, Sidcup, KentAndrew BanjiTraumaJeffrey S. Reznick.John Galsworthy and Disabled Soldiers of the Great WarSimon Robert Millar.Rooksdown House and the Rooksdown ClubJuliet Nicolson.

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