Hydrology, rheumatology, and rehabilitation: the campaigning of Fortescue Fox

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Soon after qualification, Fortescue Fox (1858-1940) began practice in a Scottish spa where he acquired a lifelong interest in chronic disorders, especially arthritis. He worked to improve the status of spa medicine, recasting it as medical hydrology. At the start of the First World War, his interests turned to the handling of war casualties and a seminal work on physical treatment and rehabilitation was published in 1916. He set up

a physical treatment clinic for damaged soldiers and co-founded a residential community where such treatment could be coupled with paid work in rural crafts. After the war Fox was a founder and president of the International League against Rheumatism and helped establish a groundbreaking outpatient clinic from which academic rheumatology in the UK developed. Yet he is not seen as a founding father of British rheumatology, having been on the losing side of an argument about the focus of the specialty. In medical rehabilitation he does have that honour.

Keywords: Fortescue Fox, history of medicine, rheumatology, rehabilitation, hydrology

Financial and Competing Interests: Fortescue Fox was the author's grandfather

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Introduction

On an October day in 1919, the British Minister of Pensions, Sir Laming Worthington Evans, opened a new facility near Andover, Hampshire. The Enham Village Centre would provide treatment and training to disabled ex-servicemen who, for physical or mental reasons, had been unable to bridge the gap between hospital and civilian life. Through a charity some 1,000 acres had been acquired, complete with a large house, several farms and many cottages. All kinds of cases, especially neurasthenic, rheumatic, and orthopaedic, would be accommodated.1 There were facilities for hydrotherapy, heat treatments, and electrotherapy. Occupational training was integral to the scheme, not only in agriculture and horticulture but also in handicrafts such as furniture-making, electrical installation, and basketry, the whole being graded and conducted under medical supervision. President of the charity, the Village Centres Council, was Field Marshall Earl Haig, and a large financial donation had come from the King and Queen. But the original scheme had humbler origins, as the brainchild of a Quaker doctor, Fortescue Fox. Two years earlier Fox had written the work for which he is now most remembered: Physical Remedies for Disabled Soldiers.2 Today he is recognised as a pioneer of rehabilitation, including sport for disabled people.3 Later in life he focused on chronic rheumatism and his campaigns for better medical and social services are recorded in many publications. He founded and led an international organisation and helped establish the clinic from which academic rheumatology in the UK traces its origins. Yet in the development of British rheumatology he is not seen as a pathfinder, having been

on the losing side of an argument about the future direction of the specialty.

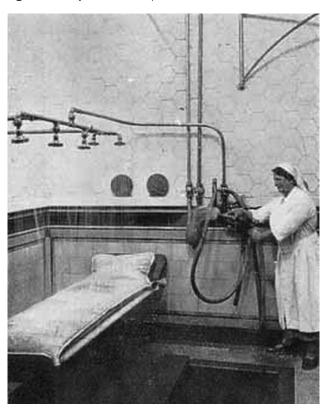
Fox's career was punctuated by three 'demonstration projects' which he hoped would be widely replicated. In old age he looked on his life as a series of reverses. His achievements and his failures owed much to a decision that took him, soon after graduation, from London to the Scottish Highlands.

Early life

Born in 1858, Robert Fortescue Fox was the seventh surviving son of Joseph John Fox, surgeon (1821–97). Along with his brothers, all of whom took up medicine, he represented the sixth generation in a direct line of Quaker doctors. His father had left the family base in Cornwall for Stoke Newington, on the north-eastern edge of London, with an introduction to the Quaker physician Thomas Hodgkin. Having rejected Hodgkin's advice to obtain a university degree, he failed to prosper in that demanding community and in mid-life a combination of depression and Menière's disease forced him to give up practice. There was little money to educate his children but it was a scholarly home. From their father they learned Latin, mathematics, and botany as well as some medicine and their energetic mother Sarah (née Allen) contributed languages and the arts. Joseph John was a Fellow of the Statistical Society, and numbered among his friends William Farr, the pioneering medical epidemiologist. He founded the Stoke Newington Mutual Instruction Society, whose members were to include two future Fellows of the

¹Retired medical editor

Figure 1 A Vichy bath at Strathpeffer



Royal Society: Jonathan Hutchinson and Henry Head. Both were Quakers.

Fortescue won an entrance scholarship to the London Hospital and embarked on a stellar undergraduate career. At the close of his student days he was claimed by Sir Andrew Clark (soon to be President of the Royal College of Physicians) as a future assistant at the London Hospital, but in 1882, near the time he qualified MRCS LSA, came the first of his breakdowns, attributed to overwork or possibly tuberculosis. Sir Andrew advised him to take a voyage as a ship's surgeon, which he did. En route, between attending to patients and studying for his exams, he composed a substantial essay on colonial activity in China.4 Returning from the voyage much restored, he gained the London MB with a gold medal and became Clark's house physician. But within a few months he was again close to collapse and felt obliged to resign. Responding to his letter, Clark wrote generously:

'I am not going to disturb your decision by selfish regrets for your going. I write this note merely in discharge of my conscience to offer you my grateful thanks for the help you have given me in the wards, for the character which you have impressed upon the work going on therein, for the happy example which you have given to the younger students, and for the able, judicious, and otherwise admirable manner in which you have discharged the duties of Senior House Physician to the Hospital.' 5

Sir Andrew had not given up on his protégé. An Aberdonian, he knew that Strathpeffer, a small spa town 15 miles northwest of Inverness, needed a district medical officer and encouraged Fox to apply for this job, in the expectation that he would return to London after a year or so and resume progress up the hospital ladder. In July 1884 the young doctor headed northwards.

Medical hydrology

Strathpeffer had the desired effect, and he flourished there. Within 18 months he was married to a daughter of a local minister and had settled in a fine house under Ben Wyvis, where each morning a piper came round to wake them. He opted to stay. Sir Andrew, hearing of this decision, did not conceal his annoyance.

Initially, Fox worked mainly with crofters on the Heights. In one incident, of which he was clearly proud, he was called to a distressed climber and saved his life by surgically releasing a strangulated hernia. The knife that he employed was the subject of a poem (not his best) that began:

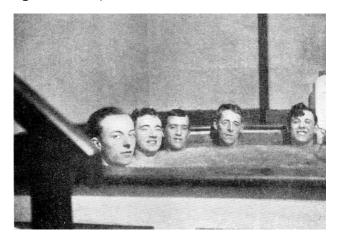
'This little bistoury Has a proud history, Even Sir Lister, he Ne'er knew its equal....' 6

According to his daughter Hilda, it was on the Heights that he first became obsessed with chronic rheumatism – a common complaint amongst the crofters, many of whose dwellings were damp, with earthen floors and peat fires. However, rheumatic disorders were also a leading complaint among the well-heeled clientele of the spa. His first medical paper, a case series, was on that subject.7

Fox was increasingly involved with the spa, making observations not only on the properties of its sulphurous waters but also on the climate. Along the way he wrote an MD thesis on 'the psychological aspect of medicine', gained the MRCP (Lond), and became a fellow of the Royal Meteorological Society. Four years after arriving, and now medical superintendent, he published Strathpeffer Spa: its Climate and Waters,8 a guide for doctors and visitors. The spa grew and by the early 1890s was receiving some 10,000 patients each summer. Once a week a train from London Kings Cross included a special carriage for the spa, to be taken up the branch line from Dingwall. Fox was to keep his home in Strathpeffer for 25 years. Latterly however, he spent his winters either in London, practising just off Harley Street, or touring European spas, from which he brought back innovations (Figure 1). He also began a lifelong interest in the Lebanon Hospital, a Quaker-founded psychiatric institution near Beirut, intermittently presiding over its London committee. In 1905 the family left Scotland permanently.

In London Fox was active in the Royal Society of Medicine (RSM), and his next book, The Principles and Practice of Medical Hydrology (1913)¹⁰ was based on lectures to the Society. This was an attempt to put spa medicine on a scientific footing, but much of the science therein is chemical and climatological rather than clinical. The book is replete

Figure 2 Sedative pool bath at Great Portland Street



with claims for the special benefits of individual spas (e.g. Karlsbad for dyspepsia, Vichy for gallstones, Harrogate for anaemia). Though Fox had faith in the mysterious powers of certain springs, he conceded that some sorts of 'hydrotherapy' could work perfectly well with ordinary water. The wide proposed scope of the discipline is reflected in one chapter heading that includes glycosuria, tuberculosis, syphilis, malaria, uterine affections, overstrain, and maladies of old age.

Now came an extended campaign to persuade the University of London to establish a chair in medical hydrology. His arguments were rejected politely but firmly. Tox became a prominent figure in London medicine – a leading light in the RSM's Section of Balneology and Climatology and in the Hunterian Society. His practice just off Harley Street served a prosperous clientele, many with rheumatic complaints who would take the cure for weeks or months at a Continental spa. In August 1914, with the outbreak of war, these options vanished and with them, much of his practice.

Medical rehabilitation

Though a pacifist, Fox took a close interest in the welfare of war casualties. He spent the next two years visiting institutions in Britain, Ireland and France where the wounded were being treated – in hospitals, convalescent camps, spas, even country houses. The allocation of casualties to these places, he found, was haphazard – with consequent variation in the quality of treatment. A report by his section of the RSM, of which he was clearly the main author, called for nationwide provision of facilities for physical treatment and a standard system for monitoring results. Fox had already been raising funds for an outpatient clinic on these lines and June 1916 saw the opening in Great Portland Street, London of his first 'demonstration project': the Physical Clinic for Wounded and Disabled Soldiers. According to the British Medical Journal,

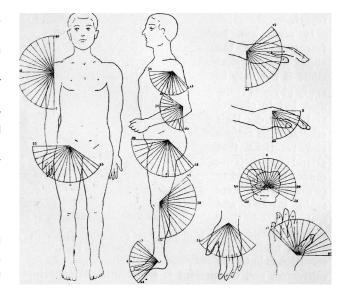
'The treatment, which will be entirely free of charge, will be under the direction of an honorary medical and surgical staff. In addition to the more familiar physical remedies (hot air, douches, massage, and manipulation) the clinic is furnished with whirlpool baths for the local treatment of stiff and disabled limbs and with a complete series of apparatus for mechanical treatment...' $^{\rm 13}$

Fox was the first medical director of this clinic (Figure 2) which was subsequently adopted and expanded by the Red Cross. It was never replicated elsewhere.

The following year Fox published Physical Remedies for Disabled Soldiers,2 which had chapters by other experts, including the Canadian exponent of physical medicine R Tait McKenzie. This book expands on all the issues raised by the RSM report, not least vocational rehabilitation. Servicemen often spent many months in hospital waiting for their wounds to heal and these places were beset with boredom, low morale and indiscipline. The book tells of the partial solution found by Colonel (later Sir) Robert Jones, Inspector of Military Orthopaedics. Jones had developed the concept of 'curative manual treatment', whereby patients spent time in productive tasks selected to promote restoration of the injured parts. This system was first tried at the Military Orthopaedic Hospital, Shepherds Bush, where Fox worked closely with him. About half the 800-odd patients at this hospital spent part of their time producing goods such as orthopaedic appliances, soap, boots, and electrical devices. 14 In Jones's estimation the workshops were a priceless therapeutic boon. The Shepherds Bush scheme had financial and practical help from a surprising quarter, the deposed King Manuel II of Portugal, then resident in Twickenham. Later, curative manual treatment was to become official policy in military orthopaedic facilities.

Visiting French and Belgian military facilities for the wounded, Fox had been impressed especially by work at the Grand Palais, Paris – a vast establishment where injured combatants received medical treatment in combination with occupational re-education for civilian life. The activities thus went far beyond the curative manual treatment advocated

Figure 3 Chart for recording movements of joints, employed by Dr Cololian of Versailles



by Jones. Regular measurement was a feature of French practice (Figure 3). Another centre, at Juvisy, had been set up in recognition that nearly two-thirds of French combatants were from agricultural backgrounds. There, along with the usual physical treatments, the staff offered courses in rural crafts such as cheese-making, market gardening, and tractordriving. Towards the end of Physical Remedies Fox makes the case for centres of this sort in Britain, to provide treatments and craft training in natural surroundings favourable to mental and physical recovery. This was the idea behind his next venture, the Enham Village Centre.

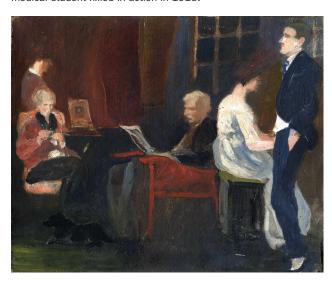
Enham

By the war's end, at least 100,000 men (some say three times that number)¹⁵ were affected by shell shock or related neurasthenic disorders - conditions that might nowadays be called post-traumatic stress disorder or combat stress reaction. Although in Physical Remedies Fox makes occasional mention of these conditions and the treatments that might be helpful, they barely feature in his accounts of then-existing services for disabled soldiers. This may be because, at that time, shell shock was virtually a banned diagnosis in military medicine.16

What distinguished Enham from other rehabilitation centres of the day was not only the combination of medical facilities with paid work, carefully chosen and graded, but also a promise of long-term accommodation for men who proved incapable of economic independence. The idea was that they and their families, known as settlers, would be given cottages and established in suitable small businesses. 17 They would be subsidised by profits from the workshops operated by the better-abled. Usually the men stayed for only a year or less. The unmarried slept in dormitories; men with families could be accommodated in the cottages. There was much competition for a place at Enham and new residents were initially on probation to make sure they were keen to work and respected the ethos of mutual help.

The originators of the project were Fox and two non-medical colleagues: Fred Rowntree, an architect (and fellow Quaker), and Warwick Draper, a barrister and 'utopian'. 18 Although Enham's eventual Council was well laced with the great and good (headed by Earl Haig), the influence of the three founders is obvious in what transpired. Rowntree and Draper were disciples of the arts and crafts movement, with its ideas for model communities based on rural industry. From the start, nervous complaints were a priority at Enham, though it also accepted men with amputations, injuries to head and spine, and rheumatic disorders. By year four, about 750 men had been received, of whom 'the majority' had left and found employment. Forty had become permanent residents.¹⁹ The first medical director was Fox, but he departed after a year, uneasy about the way things were going. Seemingly, he had disagreements with the administrator, an Army man. This was not a happy time for the Fox family, which by now had two further medical members (Figure 4).

Figure 4 The Fox family at home, 1923. Oil painting by Iris Fox. Seated centrally are Fortescue and his wife Katharine (née McDougall). Standing on the left is Iris, self-portrayed; she became a pathologist at the Royal Free Hospital, London. At the piano is Hilda, Fortescue's amanuensis. The singer is 'Robbie', who was to become Sir Theodore, FRCP. On the table is a portrait of Andrew, a medical student killed in action in 1915.



Enham survived through the inter-war years but had its share of troubles. In Britain, much of the provision for disabled exservicemen depended on philanthropy (as it still does), and the principles of the founders could clash with the desires of the beneficiaries. On the plus side, the dependence of these institutions on public donations showed the men that their sacrifices were recognised and appreciated. For their counterparts in Germany, government provision was much more generous, including secure employment even in hard financial times. Such was the public resentment of these benefits that the recipients felt alienated – until the Nazis recast them as heroes (if not Jewish) and won the loyalty of many. A good account of these events, including the Enham project, is provided by Cohen.²⁰

The Village Centres Council hoped that Enham would be the first of many such projects but the scheme was never replicated. After the Second World War the village was renamed Enham-Alamein, to acknowledge a large gift of money from Egypt in gratitude to men injured at the Battle of El Alamein. It now hosts the Enham Trust, a disability charity with roots in the original project.

Rheumatology

After Enham, Fox returned to practice in London. His chief ambition at that time was to see the wartime lessons of rehabilitation taken up by a system of public preventive medicine and taught in medical schools. As with the hydrotherapy campaign, his arguments fell largely on deaf ears. He must however have been gratified by a report published by the Chief Medical Officer at the Ministry of Health, Sir George Newman, entitled *Incidence of Rheumatic* Diseases.21 Newman (yet another Quaker in this story) had already identified a disturbingly high rate of chronic illness in

the British people, and this new study recorded a population prevalence of arthritis approaching 0.6% and much higher in manual workers. His proposals included a national network of centres for outpatient treatment of rheumatism, largely free at the point of use. (Fox would have been less happy when, later, Newman refused to countenance the involvement of spas in this programme.¹¹) The arguments for local centres were economic as well as medical; it was thought that better services for workers would usefully boost industrial output. Fox had meanwhile turned back to continental Europe and in 1922 founded the International Society of Medical Hydrology, which soon had 500 members and its own journal. In 1926 this society, inspired by Newman's report, gave birth to the International League against Rheumatism. Fox's collaborator in setting up the League was his friend Jan van Breemen of Amsterdam. A domestic charity of which he was a foundation member around that time was the Empire Rheumatism Council, later adopted by Lord Horder.

Peto Place

Fox's next move was to assemble a British committee of the International League, to create a clinic in London for chronic rheumatism on the lines proposed by Newman. It would primarily serve workers in manual occupations. As with Fox's two earlier demonstration projects, the scheme borrowed heavily from spa practice, offering baths of various sorts, massage and electrical treatments. Sited in a disused chapel, the Peto Place Clinic was opened by the Queen in 1930. It had five honorary visiting physicians and on call were a dentist, a gynaecologist and a throat surgeon in case 'septic foci' required removal. The background to this clinic, indeed the story of rheumatology in Europe as a whole, is described in Fox's subsequent publication: Chronic Rheumatism: Causation and Treatment.²² It is a quite a political work: 'We ...assume that there exists a social conscience or sense of general responsibility for the troubles befalling the individual'. A key message of the book – which foresees an era of chronic disease – is that rheumatism must be taken 'out of the province of weekly doles and into the province of treatment and prevention'. The work reflects Fox's impatience with the British medical establishment; his coauthor van Breemen is allowed a personal chapter in which to declare 'England' far behind other countries in these matters. An appendix by William Copeman, one of the visiting physicians at Peto Place, describes encouraging early results from the clinic.

Consultants from Peto Place met in each others' houses and eventually formed the Heberden Society and it is from that society, in which Copeman was a prime mover, that academic rheumatology in the UK can trace its origins. ²³ At the time, there was debate over whether rheumatology, as a specialty, should be disease-based or technique-based. ²⁴ Fox feared that a disease focus would lessen attention to the sick person as a whole. He reckoned that patients with chronic arthritis were best served by generalists with special knowledge of physical treatments such as hydrotherapy, and

called for a social approach including prevention. Copeman preferred the disease orientation and his opinion prevailed; he became the first hospital physician to make rheumatology his career. The Peto Place Clinic evolved into the Arthur Stanley Institute of the Rheumatic Diseases, Middlesex Hospital, where he was a senior consultant.

Even in his late 70s and plagued (like his father before him) by Menière's disease and depression, Fox produced two further books on rheumatism.^{25,26} He also took an anxious interest in the fate of former Continental colleagues under Nazi oppression and with his daughter Hilda (40 years his amanuensis) helped some of these start again in the UK. These efforts would have entailed not only obtaining firm offers of employment but also finding sponsors who would guarantee that the refugees would never become a burden on public funds.²⁷ Most of the work was done by Hilda, and some refugees considered that they owed their lives to her.^{28,29} In his last days Fortescue reverted to an early preoccupation: as the casualties of war mounted again, he was concerned that the troops needed better facilities for physical treatment. A letter on this subject appeared in The Times on the day of his death, in June 1940.

Posterity

Though Fortescue Fox was a prime mover in the Peto Place Clinic, birthplace of the academic specialty, he is not seen as a founding father of British rheumatology. The honours go mainly to Copeman and Horder. In the Netherlands his friend van Breemen is better served, being commemorated by an eponymous institute and a street name. Lacking the status of a hospital consultant, he always struggled to make his arguments heard, either by government or by professional colleagues. Despite service on the RCP's committee on rheumatism he was 67 before being made a Fellow of the College. It cannot have helped politically that he often looked to continental Europe for models of practice. Spa medicine was never well regarded in British medicine, and his attempts to redefine it in scientific terms were received with polite scepticism. And, of course, he was on the losing side of the argument about whether rheumatology as a new specialty should be disease-based or holistic and treatmentbased. In rehabilitation medicine he has a stronger claim to founding-fatherhood. This specialty has clear origins in the methodologies and whole-person approach described in Physical Remedies for Disabled Soldiers.

In an obituary²⁷ his friend Sir Humphrey Rolleston said that, as a campaigner and fund-raiser, Fox aroused sympathy with his 'pathetic frailty'. It was this frailty, seemingly inherited from his father, that caused him to become a balneologist rather than a London physician. But would he have achieved so much as a London consultant? It was as a spa doctor that he became preoccupied with the social aspects of medicine – the restoration of the convalescent to health, the mitigation of disabilities. These ideas have stood the test of time.

Acknowledgments

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