Sir Patrick Manson at home: 21 Queen Anne Street as a hybrid space

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Colonial physician and father of tropical medicine Sir Patrick Manson (1844–1922) is most closely associated with his research in China or teaching at the London School of Tropical Medicine, which he founded in 1899. This paper reconsiders Manson's life and work through a new spatial lens – that of his home at 21 Queen Anne Street. Drawing on glimpses of Manson's London house from his biographies and surviving archives, 21 Queen Anne Street

is presented as a hybrid space – drawing together scientific, clinical and social networks and activities. Taking the form of a tour, this paper interrogates the internal divisions of the five-story building – focusing in particular on Manson's home laboratory, the 'muck room', and his consulting room. It explores how boundaries between spaces within the house were managed but also transgressed by Manson and his imperial family. It suggests the need to think more broadly about the spatial contexts of medical practice and research in late nineteenth and early twentieth centuries.

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Arriving in England in March of 1894 on study leave from his posting with the Indian Medical Service (IMS), the young surgeon Ronald Ross (1857–1932) had high hopes for his visit to the imperial metropolis of London. Like many other young medical men interested in the diseases of warm climates, Ross sought out the great Patrick Manson (1844–1922) – then already legendary in the city as a private practitioner and researcher of tropical diseases. On 9 April 1894, he arrived before the imposing façade of Manson's five-story Georgian townhouse, hoping to meet the master. Ross¹ later recalled:

He was out but gave me an appointment for the next day ... He was very kind to me and showed me the malariaparasite specimens in his house, 21 Queen Anne Street, Cavendish Square. (p. 7)

The events that followed this auspicious meeting, namely Manson and Ross's collaborative investigation of the mosquito transmission of malaria, have been the subject of considerable study. ^{2,3} Manson's earlier investigations of filariasis in China and his teaching and research at the London School of Tropical Medicine at the Albert Dock Hospital have guided historical writings on Manson's life and his foundation of the discipline of tropical medicine. ^{4,5} However, as Ross alluded to here, there was another space arguably

more central to Manson's work – his home. 21 Queen Anne Street, near prestigious Harley Street, appears throughout the biographies of Manson, as well as his letters and research papers, as an additional character in the narrative of his discoveries. Headed letters, telegrams and meeting minutes testify to the association of this central space with Manson's pioneering research into the causes of tropical disease at the turn of the twentieth century.

Patrick Manson had settled in London after a long and successful career of service to the British Empire. Born in 1844 to a large family in Oldmeldrum, Aberdeenshire, he studied medicine at the University of Aberdeen and took summer sessions at the University of Edinburgh. He worked briefly at an asylum in Durham before following his brother to China where he was appointed Medical Officer to the Chinese Imperial Maritime Customs in 1866.5 Manson's colonial career lasted 23 years, working in Formosa (Taiwan) and Amoy (Xiamen) with European and Chinese patients. In these years, Manson established himself as a competent surgeon, a thoughtful physician and a passionate teacher of medicine. In the late 1870s, he became the first to prove that an insect can be the host for a parasite that caused human disease, sparking his lifelong pursuit of the mosquito as a vector of tropical diseases (Figure 1). He enthusiastically pursued studies of leprosy, elephantiasis, cholera, liver fluke

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and sprue, and became the first Dean of the Hong Kong College of Medicine in 1887.5

Scottish medical men were ideally placed to take up medical posts in the growing British Empire. Since at least the eighteenth century, Scottish and Irish surgeons and doctors had flocked to the naval and army services in the developing territories of the West and East Indies.⁶ With the lucrative London profession being dominated by Fellows of the restrictive Royal College of Physicians – admission to which was impossible for graduates of any university but Oxford and Cambridge - Scottish physicians looked elsewhere for their opportunities. Compounding this difficulty, the second half of the nineteenth century saw increases in the number of qualified medical men. As Douglas M Haynes⁷ has argued, imperial postings served as a 'career safety valve' for the increasingly overpopulated British medical marketplace (p. 131). The academic rigour of the Scottish medical schools stood their graduates in good stead for competitive postings in elite colonial medical services, including the IMS.8 Irish and Scottish doctors were disproportionally represented in the colonial services – accounting for 60% of medical officers in the IMS in the late nineteenth century (p. 210).9 Put simply, the empire ran on Scottish doctors. Following in this grand tradition, Manson enjoyed a successful and lucrative imperial career, and anticipated a comfortable retirement back in Scotland. However, when the value of his saved currency plummeted, Manson was forced to take up private practice again, settling in London with his large family in 1889 at the age of 46 years.

When one thinks of Victorian medical men and the spatial context of their research, the teaching hospital and the research laboratory are evoked. 10,11 As French physician and physiologist Claude Bernard (1813-78)12 reflected in the nineteenth century, 'I consider hospitals only as the entrance to scientific medicine ... but the true sanctuary of medicine is a laboratory' (p. 146). But what happens when you have a laboratory at home? Manson's home demonstrates that the spaces of medical experimentation are much more diverse than previously imagined. A study of 21 Queen Anne Street as a site of medical knowledge-making disrupts the division between domestic, laboratory, social and clinical spaces. Manson's domestic environment was a site of encounter for doctors, patients and researchers from across the empire, as well as animals, insects and even microscopic parasites.

In recent years, historians and geographers have interrogated how space is not a neutral backdrop for the events of history.¹³ Spaces are intimately connected with identity and power, influencing the nature and outcomes of interactions and knowledge production.14 Even the supposedly neutral or universal discoveries of science are indelibly affected by the social and cultural contexts in which they were developed and transmitted. 15 This 'spatial turn' has been particularly relevant for historians of science and medicine working on the history of imperialism. The British Empire was necessarily spatial - it was a political, economic and social system of power predicated on the control and administration of people

Figure 1 Patrick Manson experimenting with filaria sanguinishominis on a human subject in China. E. Board, 1912, Wellcome Collection

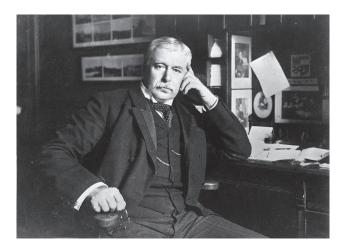


at a distance.¹⁶ Driven by the creation of hierarchies of power, colonial discourses worked in varying ways to control and order people, ideas and places from the scale of the nation, to the hospital and even the home.

The home in particular has been a space of interest for historians of the nineteenth century.17 It has been widely accepted that domesticity for middle-class Victorians was defined by the segregation of a family-centred home life and economically productive work in the outside world. The construction of (or at least appearance of) a work free, feminised home was an important aspect of middle-class identity in the nineteenth century. 18 However, scholars have challenged the prevalent idea of these 'separate spheres' in practice.¹⁹ The home has always been a site of work, often in the form of the invisible housework typically carried out by women.²⁰ Indeed, amongst the working and professional classes, including doctors and surgeons, the home was a hybrid space, mixing income-earning activities and family life. Medical practitioners would have seen patients, mixed medicines and employed assistants in their homes.²¹ The Victorian physician typically based their lucrative private practice at home, and its location, quality and appearance were central to professional reputation.²² An analysis of Manson's home demonstrates the multifarious ways that a Victorian house could be internally divided, with social, leisure, research and work spaces separated yet coexisting within the same building.

A closer look behind the doors of Patrick Manson's house shows that no easy lines can be drawn between the private and the professional, the social and the scientific. As a former colonial doctor, his research networks were mobilised through his extensive trans-imperial correspondence and strengthened by the adoption of Queen Anne Street as a social space. This ability to attract people, animals, insects and even diseases was essential to Manson pursuing a tropical research agenda from the imperial metropolis. His renown as a researcher and eventually as the Medical Advisor to the Colonial Office ensured that his acolytes would come to him, despite having retired from active field work.

Figure 2 Sir Patrick Manson in his study, also known as the muck room, 1908. Wellcome Collection



Without the renown that drew patients and physicians to his private practice, his home laboratory and his sitting room, the evolution of tropical medicine as a discipline may have looked very different. Manson's home is a unique hybrid space through which we can gain a new perspective on the development of tropical medical knowledge at the turn of the twentieth century.

As 21 Queen Anne Street was demolished in 1914, most information relating to Manson's home comes from biographical sources.⁵ His most prolific biographer was his son-in-law, Philip Manson-Bahr (1881–1966). Manson-Bahr married Manson's eldest daughter Edith (1879-1948) in 1909 and became Manson's son and research protégé, even adopting his surname (supposedly at Manson's personal request).²³ Manson-Bahr's close personal relationship allowed him to write a number of biographies that are peppered with intimate insights into Manson's domestic life.4,5,24 These recollections are complemented by letters, diaries and other personal papers held at the Wellcome Library in London and the Archives of the London School of Tropical Medicine and Hygiene. Together these resources help us to deepen our understanding of Patrick Manson's life, his professional practice and his scientific research through the lens of his home.

This paper will take the form of a tour of 21 Queen Anne Street, guided by the various interior spaces of the house. Beginning at the top of the house, I will delve into Manson's personal laboratory, where Manson showed Ross his mosquito-malaria specimens. Moving past the floors containing bedrooms and sitting rooms for Manson's substantial family and staff, we will arrive at the ground floor containing Manson's private consulting rooms, the sitting room and dining room – where private practice and social life overlapped. A walk through 21 Queen Anne Street demonstrates how Manson's home functioned as a hybrid space – its internal divisions helping to order the intersections between familial, social and professional networks at the same time as they were being constantly transgressed by family members, visitors and Manson himself.

The 'muck room'

The space set aside for Manson's research work was the top floor of the home – an attic repurposed as a laboratory and study. While most private practitioners had a consulting room at home, very few late Victorian doctors could boast a dedicated laboratory. As Philip Manson-Bahr⁵ recalled, the arrangement was 'almost unknown for a London consultant in the nineties' (p. 59). Known affectionately amongst his family as the 'muck room' - the top floor of Queen Anne Street attempted to replicate the research environment to which Manson had grown accustomed during his colonial service. While he had returned to Britain ostensibly to retire, Manson had never lost interest in the transmission and propagation of tropical disease, which had formed the basis of his research into filariasis from the 1870s.4 At Amoy, Manson had had essentially unrestricted access to research material through his role as physician to a mission hospital.3 Settling up in London with no formal hospital connections, Manson had to create his own research environment. Manson-Bahr⁵ recalled the 'muck room' from memory:

There was a bench with his favourite microscope, slides, and stains, but especially noticeable were the remarkable gadgets for microscope technique which he had himself fashioned out of pieces of tin and wire ... He invariably kept some live animals which harboured interesting parasites, such as Java sparrows, canaries, guinea-pigs, and rats. He also had mosquito-cages in which he bred these insects for larvae, thus acquiring as much knowledge of their biology and habits as was possible at that time. There he would work far into the night, devising new methods of staining and examining blood. Sometimes he never went to bed at all, and on many occasions, when led thither by his eldest daughter [Edith], he would escape to his muck room once more. (p. 59)

As this passage indicates, the muck room served as a hub for human, animal and insect bodies, drawn into Manson's continued pursuit of the filarial worm as a vector for tropical disease. Figure 2 shows the only surviving photograph of the interior of the space that I have been able to identify. Behind him, Manson's desk appears tantalisingly messy – with letters, research papers and photographs spilling out of the frame. His 'rickety Watson microscope' is not visible but is presumably just out of view (p. 14).²⁴

The importation and breeding of infected insects and animals made the top floor of Manson's home a veritable arc of tropical disease. Experimentation on live animals was common practice amongst physicians and scientists in the nineteenth century, and Manson had been using dogs, monkeys and birds as incubators for parasites since his days in China.⁵ Working in China, Manson had found obtaining corpses for dissection almost impossible owing to cultural and religious restrictions, as well as the challenges of the hot climate.³ The muck room similarly would not have been an effective locale for cadaveric dissection, and animal substitutes continued to serve Manson well – whether birds, rats or other small

mammals. Pet monkeys doubled up as research subjects in the Manson household. He once wrote to a collaborator working in Africa asking him to investigate cases of ainhum, a condition in which the fifth toe spontaneously wastes away, because his wife's monkey seemed to be afflicted with the disease and he needed more research material to develop a course of treatment.²⁵ Other exotic animals were simply pets, like Manson's parrot Polly Manson, who insulted visitors and patients in a broad Scottish accent (p. 121).²⁴ Or, when the family relocated to Ireland in 1914, a pet alligator whose eggs were served for breakfast.26

As his main research interest was vector-borne parasites, Manson kept a constant stock of insects, infected or awaiting infection, for experiments carried out at home. Through these investigations, the top floor of 21 Queen Anne Street become a literal petri dish of imperial medicine - bringing together tropical disease with the British environment. In one famous experiment, Manson mixed water from Wandsworth Ponds, which contained the water flea Cyclops, with a guinea worm he had extracted from a patient at the Albert Dock Hospital. Guinea worm is a painful parasitic infection caused by drinking water infected with the larvae and characterised by the emergence of full-grown worms through the patient's feet.27 After 24 hours, guinea worm embryos could be identified in the newly infected fleas.5 Manson was so thrilled with his discovery that he wrote to Ross, illustrating the newly born parasite in the margins.28

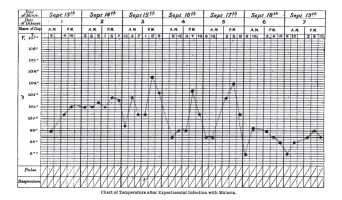
Manson also had a constant supply of mosquitoes, imported and domestic, living or dead, which formed the basis for his experiments into the transmission of malaria. Between 1895 and 1899, Manson and Ross exchanged over 130 letters in the course of their discussions over the role of the mosquito as a vector of the disease.2 In 1895, he wrote to Ross of a plan to import mosquito larvae from Gibraltar, which he would then allow 'to bite the first malaria case I can lay hands on'.29 He prepared a breeding chamber in his muck room, telling his collaborator that he lacked only 'the patient' to complete his experiment.30 Luckily for Manson, but perhaps unluckily for his family, his home also proved a good resource for human research subjects. He informed Italian physician Angelo Celli (1857–1914)³¹ in April 1900, that he intended to:

Import into England from Rome malaria infected mosquitos and setting [sic] them to bite Englishmen in London. This would be incontrovertible proof ... that the mosquito can convey the germ [for malaria].

A special cage filled with infected mosquitoes was dispatched from Brindisi in Italy to Manson's London home by special messenger. The mosquitoes were then allowed to bite Patrick Thurburn Manson (1878–1902), then a 23-year-old student following his father into medicine.

In an article in the British Medical Journal titled 'Experimental Proof of the Mosquito-Malaria Theory', the younger Manson³² reported his personal experience of contracting the disease in

Figure 3 Temperature chart for Patrick Thurburn Manson taken by his sister Edith, September 1900. Published in the British Medical Journal³²



detailed hour-by-hour descriptions. Manson's daughter, Edith, was on hand to take careful note of her brother's progress. Fortuitously, she was training to be a nurse at the Royal London Hospital at the time (p. 122).24 Her careful tracking of her brother's temperature can be seen in Figure 3. Within a few weeks, the younger Manson began to demonstrate the characteristic symptoms of the disease – the parasites in his blood being verified by Manson and other 'competent' observers invited to the muck room to view his progress (p. 195).²⁵ The laboratory space can be seen as spreading out into the house, drawing in people from the supposedly isolated family areas.

Furthermore, the location of this research had a profound effect of the kinds of studies Manson was able to carry out. This was a bold experiment, facilitated by the bonds of filial trust and the course of the disease carefully monitored within the comfortable setting of the home, under the watchful eye of his daughter. Ironically, Manson eventually felt obliged to leave the secluded space of the home during the experiment - worrying that his excitement and close relationship to the patient would ruin the effectiveness of experiment. He left for the country, leaving his daughter and assistants to complete monitoring and treatment (p. 195).²⁴ Under a course of quinine, the younger Manson swiftly recovered. At 21 Queen Anne Street the divide between scientific space and familial space was decidedly blurred.

The consulting room

Moving down to the ground floor of the home, we come to Manson's private consulting rooms. While a laboratory at home was a rare occurrence in the late nineteenth century, practicing medicine there was not. As Anne Digby²¹ has explored in her economic history of doctoring, the possession of a 'corner or double-fronted house' with a surgery entrance was a must for nineteenth-century physicians (p. 38). As it was considered unprofessional to advertise for services, doctors relied on honorary offices at medical institutions to attract patients - a struggle for Manson in his first years in London. While descriptions of these hybrid home/ work spaces are few and far between, both Digby²¹ and Lesley Hoskins²² observe that the appearance of gentility

Figure 4 Consulting room of Sir Morell Mackenzie, late nineteenth century. Wellcome Collection



and knowledge was essential to maintaining status for physicians' private practices within their domestic space. Figure 4 shows the interior of the home consulting room of one of Manson's contemporaries in London, laryngologist Sir Morrell Mackenzie (1837–1892).

Manson's consulting room was located on the ground floor of his home, easily accessible from the street. Inside, Manson created an exotic atmosphere reminiscent of his Eastern experience. His son-in-law²⁴ described the space thus:

On the ground floor of 21 Queen Anne Street and approached by a dark passage was Manson's consulting rooms. It had a distinctly oriental appearance, an impression strengthened by Manson himself who in the gloom would have passed for a Chinese mandarin. He sat at a large table which, together with the surrounding walls, was decorated with pictures and photographs of his many triumphs and caricatures of his colleagues... (p. 112)

Unlike the modern clinical spaces in which Manson spent his time in hospital practice, his private practice was dark, exotic and fashionable. This Oriental style was likely a calculated move on Manson's part, emphasising his imperial pedigree as a physician with foreign experience. Imperial goods with a 'glamorous provenance' were seen as a mark of status in the late Victorian era (p. 186).³³ As a private practitioner, Manson was also known for his unique diagnostic methodology: the blood film. Manson-Bahr²⁴ recalled that, 'the ladies in whom he omitted this attention [in making blood smears] complained that he had not earned his fee' (p. 117). Manson saw patients every morning until about midday before rushing off to his hospital practice at the Albert Dock Hospital (ADH). He would take appointments again the evenings upon his return, his wife Henrietta Isabella (1856–1939) and daughters acting as unofficial secretaries to balance the load of casework.

As Manson's career progressed, his home and hospital practice became increasingly intermixed. Patients would arrive at Manson's home for testing but, if the case proved serious, would be referred to the ADH for further observation.

Given his reputation as an expert in tropical diseases, it is hardly surprising that his private practice was dominated by colonial officers and their wives. Reporting on the case of Mrs R., aged 31, who sought out Manson as a private patient in 1905, Manson³⁴ recorded how he was able to identify the dreaded trypanosomes characteristic of sleeping sickness in her blood, before referring her onward for treatment at the dock hospital. As Medical Advisor to the Colonial Office, Manson's home consulting room was also a destination for officials going out to or returning from their official postings. On one occasion, an officer recently returned from the African Gold Coast visited Manson's private practice and had routine blood slides taken. After the consultation, Manson stopped for dinner before proceeding upstairs to the muck room to analyse the samples. In the slides, Manson noticed a suspicious tadpole-like object - potentially the source of sleeping sickness in humans and an indication the patient was in need of immediate transfer to the ADH. He quickly summoned his assistant and pursued the patient to the Oriental Club, the social venue of choice for imperial officers. However, sensing the doctor came bearing bad news, Manson's unwilling patient fled into the night, never to be seen again.24

The parlour and dining room

On this occasion, the allure of the dining room, only a few paces from his consulting room, lured Manson away from a potential discovery of the human trypanosome, which could have predated that of English parasitologist Joseph Dutton (1874–1905) by several years.³⁵ However, this incident also shows how closely connected social and professional networks were for researchers like Manson. In the late nineteenth century, being a physician was not only clinical but social. As Digby²¹ has observed, 'social attributes' mattered almost as much as medical skill in creating a successful private practice (p. 171). Manson's prestige as a researcher and practitioner resulted in Queen Anne Street becoming a busy social space – whether private patients, visiting dignitaries or dinner guests. Ross¹ remarked that Manson was always 'followed by a horde of admiring doctors' (p. 22).

As in the case of the Gold Coast visitor, social and professional networks intermingled when individuals came with a valuable parasitic cargo. Writing to Philip Manson-Bahr in September 1910, Edith²⁷ recalled a dinner party at home with 'Dr Roe ... [who] has just come back from West Africa full of something in his blood and father is very impressed'. A dinner party became a research opportunity: social networks overlapping with the professional. Did Manson fetch his microscope from upstairs to prepare the sample? Was a wriggling parasite revealed through the lens for the enjoyment of the other dinner guests? Did Dr Roe come back for a private consultation the next day? Unfortunately, as with most research carried out in domestic spaces, these fleeting encounters are very rarely recorded. However, what we can safely assume is that this was far from an uncommon occurrence in the Manson household. From other surviving records of Manson's research practice, it is clear that he was particularly fond of performative, 'on the

spot' investigations with his microscope. In 1893, Manson visited the Crystal Palace where a troop of 49 'natives' of Dahomey was performing in order to test their blood for the presence filarial worms.36

As Manson's work and theories began to attract other medical men, patients and patrons, Queen Anne Street was naturally transformed into a hub for what was to become the London School of Tropical Medicine, formally established in 1899. Philip Manson-Bahr⁴ described the house as the 'nucleus of the future London School of Tropical Medicine' and, arguably, its functioning heart during its early years (p. 105). Even after the foundation of the school in London's deep docks, Manson's home would continue to be the location of choice for committee meetings. The Medical Council of the ADH first sat in June 1899 at 21 Queen Anne Street, moving only occasionally to the Medical Society Rooms only a short walk away. From 1900, these meetings were held almost exclusively at Manson's home. Between 1899 and 1903, the School Committee met a total of 37 times, 29 of these at Queen Anne Street.37 lt is difficult to tell where in the house these meetings would have occurred - likely in the relatively removed safety of the muck room, although larger gatherings may have necessitated relocating to the parlour. From this pattern of location, we can infer a desire for committee members, mostly based in central London, to avoid the lengthy trip to London's deep docks where the school was located. It is important also to recall Manson's own immobility as well - he suffered greatly from gout, which, as Ross¹ recalled, nearly crippled him in the last years of his life.

Gendered spaces

To what extent were these different internal spaces gendered? Certainly, the inner life of 21 Queen Anne Street seems to resemble little of a supposedly feminine domestic sphere, isolated from the exigencies of public and scientific life. Yet, the creation of internal boundaries between scientific (the muck room), clinical (the consulting room) and social (parlour, dining room), helped to organise these busy spaces along gendered lines. Scientific visitors like Ross, Manson's colleagues from the School of Tropical Medicine and prominent visitors like Lord Joseph Lister (1827–1912) were often led directly to the top floor laboratory.4 Yet, Manson's wife Henrietta and daughters appear to constantly transgress any internal divisions between domestic and scientific spaces. serving as unpaid nurses, secretaries, administrator and translators. His eldest daughter Edith worked closely with her father, often writing his research notes and letters.²⁴ Philip Manson-Bahr recalled that Henrietta spoke 'a few words of Spanish and a modicum of French' that she used to welcome and entertain a motley crew of international guests (p. 118).²⁴ However, scientific papers transcribed in the original French by Henrietta and sent to Ronald Ross by Manson attest to her language skills.38 Acting as typist and secretary, her involvement in her husband's work was more profound than her son-in-law may have recognised.

The Manson women also served an important role as guardians of the Victorian ideals of domesticity - hosting

Figure 5 Blue plaque for Sir Patrick Manson at 50 Welbeck Street, London. Author's photo



dinners, entertaining guests and keeping up family relations. Philip²⁴ recalled that the 'great physician' generally preferred to lock himself away, leaving the 'ladies of the household' to look after the many scientific, medical and political dignitaries who visited the house (p. 118). We can identify in Manson many of the contradictions indicated by historians of Victorian masculinity – his close and guiding relationship with his children (especially where careers where concerned), contrasted with a desire to withdraw from domestic social obligations. 17 With his expanding family and network of research contacts, his female relations also carried out the work of maintaining relationships across often vast expanses of empire. Pursing their own medical careers, Manson's children often travelled to far away locales including Fiji and Christmas Island. Through their unpaid toil, his wife and daughters helped to assure Manson's professional and social success.

Conclusion

From the dining room to the laboratory, Patrick Manson's pursuit of his medical research infiltrated almost every aspect of his domestic life. Internal divisions within 21 Queen Anne Street helped to organise the hybrid space, providing different areas for consulting, socialising, dining, family life and researching. However, these lines were constantly being transgressed by Manson, his family, patients and colleagues, to say nothing of exotic pets and imported insects. Despite having returned from colonial service, in his London years Manson was able to effectively mobilise professional and social networks to attract patients, contacts and research material to continue his research into tropical disease. Unfortunately, this central space in the development of tropical medicine has been lost, demolished in 1914. A blue plaque at 50 Welbeck Street, only a few metres away from the original site, marks the building where Manson lived very briefly between moving out of Queen Anne Street and relocating to Ireland (Figure 5).

This paper has suggested that the hospital and the field were far from the only places in which Manson encountered tropical diseases and imperial patients. His home must be considered formative for his research and the development of tropical medicine in this period. 21 Queen Anne Street – sheltered from the public eye – allowed Manson to pursue more ambitious experiments, have more confidential

conversations, and to develop his informal networks with colleagues and visitors. Glimpses of the house and its inhabitants in the archival record and Manson's biographies demonstrate its uniquely imperial nature. The house's position as a hybrid domestic, clinical and research space reminds us of the need to think much more inclusively about the spaces in which science occurred and medical knowledge was made in the late nineteenth and early twentieth centuries.

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References

- 1 Ross R. Memories of Sir Patrick Manson by Sir Ronald Ross. London: Harrison and Sons Ltd; 1930.
- 2 Bynum WF, Overy C. The Beast in the Mosquito: The Correspondence of Ronald Ross and Patrick Manson. Amsterdam: Rodopi; 1998.
- 3 Haynes DM. Imperial Medicine: Patrick Manson and the Conquest of Tropical Disease. Philadelphia (PA): University of Pennsylvania Press; 2001.
- 4 Manson-Bahr PH, Alcock A. The Life and Work of Sir Patrick Manson. London: Cassell and Co.; 1927.
- 5 Manson-Bahr PH. Patrick Manson: The Father of Tropical Medicine. Edinburgh: T. Nelson and Sons; 1962.
- 6 Hamilton D. Scotland, the Caribbean and the Atlantic World, 1750–1820. Manchester: Manchester University Press; 2005.
- 7 Haynes DM. Victorian Imperialism in the Making of the British Medical Profession: An Argument. In: Ghosh D, Kennedy D, editors. *Decentring Empire: Britain, India and the Transcolonial World*. Hyderabad: Orient Longman; 2006. pp. 130–56.
- 8 Harrison M. *Public Health in British India: Anglo-Indian Preventive Medicine* 1859–1914. Cambridge: Cambridge
 University Press; 1994.
- 9 Haynes DM. Social Status and Imperial Service: Tropical Medicine and the British Medical Profession in the Nineteenth Century. In: Arnold D, editor. Warm Climates and Western Medicine: The Emergence of Tropical Medicine, 1500–1900. Amsterdam: Rodopi; 1996. pp. 208–26.
- 10 Latour B. Science in Action: How to Follow Scientists and Engineers Through Society. Cambridge (MA): Harvard University Press; 1988.
- 11 Bynum WF. Science and the Practice of Medicine in the Nineteenth Century. Cambridge: Cambridge University Press; 1994.

- 12 Bernard C. An Introduction to the Study of Experimental Medicine. Copley Green H, translator. New York: Henry Schuman; 1949.
- 13 Massey D. For Space. London: Sage Publications; 2005.
- 14 Shapin S. Placing the view from nowhere: historical and sociological problems in the history of science. *Trans Inst Br Geogr* 1998; 23: 5–12.
- 15 Livingstone DN. Putting Science in its Place: Geographies of Scientific Knowledge. Chicago (IL): Chicago University Press; 2003.
- 16 Said EW. Culture and Imperialism. London: Vintage Books; 1993.
- 17 Tosh J. A Man's Place: Masculinity and the Middle-Class Home in Victorian England. New Haven (CT): Yale University Press; 1999.
- 18 Davidoff L, Hall C. Family Fortunes: Men and Women of the English Middle Class, 1780–1850. London: Routledge; 2002.
- 19 Vickery A. Golden age to separate sphere? A review of the categories and chronology of English women's history. *History J* 1993; 36: 383–414.
- 20 Blunt A, Dowling R. Home. London: Routledge; 2006.
- 21 Digby A. Making a Medical Living: Doctors and Patients in the English Market for Medicine, 1720–1911. Cambridge: Cambridge University Press; 1994.
- 22 Hoskins L. Putting People on the Page: Material Culture as a Way in to Everyday Life Behind the Facades of Tallis's London Street Views. *J Vict Cult* 2017; 22: 329–38.
- 23 Woodruff AW. Philip Henry (Sir) Manson-Bahr, Munk's Roll, 1966; 6. http://munksroll.rcplondon.ac.uk/Biography/Details/2934 (accessed 16/11/18).
- 24 Manson-Bahr PH. *History of the School of Tropical Medicine in London*, 1899–1949. London: H.K. Lewis and Co. Ltd; 1956.

- 25 Patrick Manson to Dr Charles Wilberforce Daniels, 1900-1913. Unpublished Letters. Wellcome Library. WTI/RST/F/31.
- 26 Patrick Manson to Philip Manson-Bahr, 1910–1920. Unpublished Letters. Wellcome Library. WTI/RST/F/33.
- 27 World Health Organization. About Guinea-worm Disease, dracunculus medinensis. https://www.who.int/dracunculiasis/ disease/en/ (accessed 10/11/18).
- 28 Letters from Patrick Manson to Ronald Ross, 1895–1899. Unpublished Letter. Archive of the London School of Hygiene and Tropical Medicine. GB 0809 Ross 12/07, 1895.
- 29 Letters from Patrick Manson to Ronald Ross, 1895-1899. Unpublished Letter. Archive of the London School of Hygiene and Tropical Medicine. GB 0809 Ross 12/10, 1895.
- 30 Letters from Patrick Manson to Ronald Ross, 1895–1899. Unpublished Letter. Archive of the London School of Hygiene and Tropical Medicine. GB 0809 Ross 12/14, 1896.
- 31 Patrick Manson to Professor Angelo Celli, 1900. Unpublished letter. Wellcome Library. WTI/RST/F/29.
- 32 Manson P. Experimental proof of the mosquito-malaria theory. Br Med J 1900; 2: 949-51.

- 33 De Groot J. Metropolitan Desires and Colonial Connections: Reflections on Consumption and Empire. In: Hall C, Rose S, editors. At Home with the Empire: Metropolitan Culture and the Imperial World. Cambridge: Cambridge University Press; 2006. pp. 166-91.
- 34 Manson P. My experience of trypanosomiasis in europeans and its treatment by atoxyl and other drugs. Ann Trop Med Parasitol 1908; 11: 33-51.
- 35 Dutton JE. Preliminary note upon a trypanosome occurring in the blood of man. Yates Lab Rep 1902: 4: 455-68.
- 36 Patrick Manson Research Papers, Diary, Volume 02. Unpublished. Archive of the London School of Hygiene and Tropical Medicine. GB 0809 Manson 05/05.
- Seaman's Hospital Society (SHS) School Committee Minutes Vol. 1, 1899-1903. Unpublished. SHS Archive.
- 38 Letters from Patrick Manson to Ronald Ross, 1895–1899. Unpublished letter with appended manuscripts in French. Archive of the London School of Hygiene and Tropical Medicine, GB 0809 Ross 12/31-33, 1897.