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# Fighting the fever

The return of kala-azar in India

## ACHINTYA KUMAR DUTTA

**Kala-azar or black fever (visceral leishmaniasis) frequently figures in the news in India. Although the disease had nearly disappeared in the country by the mid-1960s, ostensibly owing to organised public health measures, this success was short-lived.**

An epidemic resurgence of kala-azar in North Bihar in 1976–77 spread into West Bengal; the outbreak affected hundreds of thousands of people and caused the deaths of almost five thousand. Kala-azar transmission continued thereafter, resulting in more than 250 000 cases and numerous deaths. However, it is believed that the actual impact of the disease is far greater, as cases have gone unrecorded. The burden of disease was exacerbated by the acute shortage of drugs necessary for treatment at the beginning of 1977, which was mainly a result of local firms deciding to limit their production in India.

The World Health Organization played an important role during the 1977 crisis, providing emergency supplies of medicine to the region. It was also involved, along with the government of India, in convincing pharmaceutical companies to restart the manufacture of anti-kala-azar drugs, which allowed dispensaries and hospitals to provide treatment to the infected (these services were provided free to the economically disadvantaged). Organised vector control programmes, based on DDT spraying campaigns, started during the pandemic of 1977 and were continued in the following years. In this context, the WHO provided technical

assistance in the form of technical advisers and field personnel. The National Institute of Communicable Disease was also involved in these disease control efforts: its officials surveyed affected districts in Bihar for data about epidemiological and social trends.

However, these anti-kala-azar measures were not introduced in an organised or uniform way across Indian states, which caused the disease to remain widely prevalent in Bihar and West Bengal (sporadic cases were also reported from the states of Uttar Pradesh, Gujarat, Punjab and Tamil Nadu). The National Planning Commission considered the problem to be serious enough in 1990 to approve significant financial assistance to an expanded scheme for kala-azar control; these funds were intended to provide for the assembling of teams of workers, chemicals for anti-vector spraying and drugs for treating people struck by the disease. UNICEF provided additional assistance for publicity

**Above:**  
A local health unit dispensary in India.

**Right:**  
Cowpats, used for fuel, drying on a house in Bihar. Cow manure is also a vector for the parasite that spreads leishmaniasis.  
*A Bryceson*

**Cover:**  
A house in India showing its last DDT spraying dates.



and educational campaigns. These developments contributed to a decline in the incidence of kala-azar in the following years, even though these successes appeared transitory; insecticide spraying and active case detection work was not, for example, carried out in Bihar from mid-1994, even though 30 districts in Bihar and nine districts in West Bengal were found to be severely affected by kala-azar at the very time.

Disease surveillance activities, widely accepted as essential to any eradication programme, continue to be poorly organised in affected areas of India. The bulk of cases are concentrated in tribal villages, which have limited access to health facilities. Kala-azar has, for instance, been spreading rapidly in and around the tribal hamlet of Sarbamangal in South Dinajpur district in West Bengal; my investigations there reveal that its inhabitants have minimal access to healthcare facilities capable of treating the disease. The Public Health Centre is not even equipped with the pathological facilities to identify the kala-azar parasite; moreover, the health workers rarely invest time in case detection work or the spraying of insecticide. Acute shortages of effective drug treatments do not help either – indeed, sodium antimony gluconate, which is in use for the treatment of this disease, is not currently manufactured in India. Pentamidine isethionate, a product manufactured outside India, is frequently considered too costly to import by hard-pressed state governments. The widespread circulation of spurious drugs has created further problems for patients and health officials. Indian bureaucrats and administrators are also culpable, by refusing give priority to tackling the kala-azar problem. The available evidence shows that the disease generally affects the most disadvantaged sections of society. This ought to stoke more – rather than less – concerted action.

**Right:**

A man with post-kala-azar dermal leishmaniasis.

The persistent neglect of health matters in public policy is evident from the relatively low levels of expenditure on health. Investment has fallen away gradually after

the second five-year plan period; federal support for disease control programmes, which stood at 41 per cent in 1984/85, was reduced to 29 per cent in 1988/89 and scaled back further to 18.5 per cent in 1992/93. Health centre efficiency in several states continues to be adversely affected by insufficient facilities, medicines and staff. There is, thus, an urgent need for radical



reform. The political visibility of health issues needs to be raised, and shortcomings in health delivery need to be analysed, debated and countered both before and after parliamentary and local authority elections. Diseases such as kala-azar can only be eradicated through well-knit integrated campaigns. It is essential to mobilise community participation in health programmes, and special attention needs to be paid to ensuring the participation of women, since they are often the primary carers of children and the elderly. The Ministry of Health and Family Welfare recently constituted an expert committee on kala-azar elimination from India, with the declared aim of eradicating the disease by 2012 – this important goal can only be achieved through the committed determination of all stakeholders.

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## New publication



*Cholera and Conflict: 19th century cholera in Britain and its social consequences*, edited by Michael Holland, Geoffrey Gill and Sean Burrell

This collection of essays presents some local studies on Asiatic cholera, predominantly for the 1832 pandemic; there is a chapter on cholera treatments in the early 19th century, some groundbreaking work on Asiatic cholera in Ireland, a chapter on the treatment of cholera during the Crimean War, and the intriguingly titled 'When the Fourth Horseman Rides', which examines art and literature for the period based on the belief that the 1832 pandemic was of apocalyptic proportions.

The volume came about as a direct result of the Cholera Project that was launched to ascertain the true level of civil unrest associated with the outbreaks of Asiatic cholera for

the years 1832 and 1849 in the UK. A secondary aim was to identify medical innovation that was used in the treatment of the disease.

The researchers for the project were recruited from the Open University, family history societies, medical societies and the Family and Community Historical Research Association, and operated under the auspices of the School of Tropical Medicine at the University of Liverpool. Their brief was to trawl through local documents, newspapers etc. for evidence of unrest associated with outbreaks of cholera and then to feed their findings to the academic advisers for inputting onto a database. The Thackray Medical Foundation provided funding for the research and the publication of the findings.

Published by the Thackray Museum, Leeds ([www.thackraymuseum.org](http://www.thackraymuseum.org)). ISBN 9781897849095.





# Oriental sore

An ancient tropical disease  
and hazard for European travellers

## ROBERT KILLICK-KENDRICK

One of the commonest souvenirs for Europeans travelling in Asia or North Africa in the 18th and 19th centuries was an Oriental sore or bouton d'orient. These were often named according to the place they were acquired, such as Aleppo evil, bouton d'Alep, Haleb choban (Turkish for Aleppo ulcer), clou de Biskra, clou de Mila, Delhi boil, Baghdad boil, Jericho boil, bouton de Crète, Caniotica (also in Crete), Balkh sore (in Afghanistan) and Penjdeh sore (in Turkmenistan).

Other names gave ideas of the nature of the infection, such as the time to spontaneous cure or the time sores appeared. Examples are Elizabethpol godovik (Elizabethpol is a town in the Caucasus and godovik means annual; anthroponotic cutaneous leishmaniasis usually heals about one year after infection), bouton d'un an (sore of one year), and Habt il senne (in Aleppo – again referring to the duration of one year) and Habb Mta el Tmar (date sore – because, in Algeria, the lesions appeared as the dates ripened). In Turkmenistan it was called Sart sore (from the name of a tribe) and, in Arabic countries of the Middle East, Al Okht (the little sister – because everybody has one).

A thousand years ago, the great Persian physician Abū 'Alī al-Ḥusayn ibn 'Abd Allāh ibn Sīnā (981–1037), better known in western Europe as Avicenna, gave what is arguably the best early clinical description of cutaneous leishmaniasis. From that time onwards,

there were several accounts in Farsi or Arabic of skin infections that were almost certainly leishmaniasis. Most of these early accounts describe dry lesions that suggest urban anthroponotic infections caused by *Leishmania tropica* (Wright), rather than the rural, wet zoonotic form caused by *L. major* (Yakimoff and Schokhor). An exception is a remarkable clinical description of both forms of the disease published in 1756 by Alexander Russell (1715–1768), a Scottish doctor who practised in Aleppo in the days of the Ottoman Empire. In *The Natural History of Aleppo and Parts Adjacent*, he gives an account of how the local people differentiated between a 'male' form, which must have been the zoonotic infection, and a 'female' form, which must have been the anthroponotic infection. The descriptions of the lesions and the time to spontaneous healing are the most important distinguishing features. He describes treatment with a mercury ointment but concludes: "from what I have observed, it is infinitely better to apply nothing, than any of the numberless medicines they make use of". Some physicians of today would agree.

Although the disease was well known, nobody had any idea of its cause or how it was transmitted. Then, in 1885, D D Cunningham saw the parasite in sections of a Delhi boil in India. Shortly afterwards, in 1891, R H Firth also reported the presence of parasites in a lesion, but both misinterpreted what they saw. A Russian army doctor, P F Borovsky, was the first to realise the bodies in lesions were protozoa but his observations, published in an obscure Russian journal in 1898, remained unknown outside his country until C A Hoare translated his paper in 1938. In 1903, an American doctor, J H Wright,

**Above:**  
Panorama of Aleppo.  
From Cornelis de  
Bruyn's *A voyage to  
the Levant*, 1702.

published three papers on the discovery of *L. tropica* in a lesion of a child from Armenia and the parasitic nature of the infection became universally accepted. But how were people infected? K Schulgin, a Russian colleague of Borovsky, influenced by the new knowledge that malaria was transmitted by the bites of mosquitoes, gave the first clue when, in 1902, he wrote a paper entitled 'The question of the aetiology of Penjdeh sore', in which he suggested the disease was transmitted by a nocturnal biting insect. His report went unnoticed until Nobel Laureate Alphonse Laveran drew attention to Schulgin's speculation in his classic book on the leishmaniasis published in 1917. But tucked away in an earlier book (on the prevention of malaria) published by A Prassat in 1905 was the first suggestion that sand flies could be the vector of Oriental sore (in Egypt).

Edmond Sergent at the Pasteur Institute in Algiers was also puzzling over the transmission of Oriental sore and, like Schulgin, concluded that the infection must be by the bite of a nocturnal haematophagous insect. He knew of Prassat's suggestion about sand flies and suspected the vector was *Phlebotomus papatasi* (Scopoli), an abundant phlebotomine in Biskra, an infamous focus of Oriental sore 330 km south-east of Algiers. In 1921, he asked the Institute's entomologist, Louis Parrot, to collect sand flies there and send them to Algiers. Of more than 2000 caught by Parrot and identified as *P. papatasi*, only 561 survived the journey: they were enough. On arrival, they were ground up in lots and suspensions were scarified on the skin of four volunteers, one of whom (A Donatien) developed a small papule with a crust seven weeks later at the site of scarification on his arm with a suspension from seven flies. The papule increased in size, reaching a diameter of 6 cm, before healing spontaneously seven months after infection. Numerous parasites were seen in stained smears of the lesion. The identity of the

sand fly and the fact that the lesion healed without treatment in less than a year strongly suggest the parasite was *L. major*. But the results of this experiment were not accepted as proof that sand flies are the vectors of Oriental sore. C Wenyon, the doyen of British protozoology of the day, insisted that proof required experimental transmission in the laboratory. Other workers pointed out that there are many monoxenous trypanosomatids parasitic in numerous species of



insects and the lesion could have been a transient infection by one of these. Nevertheless, even today Sergent is sometimes credited with the discovery that sand flies are vectors of cutaneous leishmaniasis.

Saul Adler, a British worker in Jerusalem, finally produced overwhelming evidence of the role of sand flies that satisfied everyone, even Wenyon. He repeated Sergent's experiments with the same species of sand fly (*P. papatasi*) and parasite (*L. major*, mistakenly called *L. tropica*) and then struggled for years to transmit it by bite. He fed 253 heavily infected sand flies on 12 men and a puppy, but only one man (himself) developed a lesion where flies had fed. He did not accept this as proof of transmission by bite because he had lived for several months in a place where he could have been infected naturally.

The proof was eventually obtained 20 years after Sergent's experiment, when Adler and Ber managed "with remarkable ease" to infect five volunteers with 27 lesions from the bites of 26 sand flies bred and infected experimentally in the laboratory. Since that time, other workers have transmitted various species of *Leishmania* by the bite of different sand flies and their vectorial role is no longer questioned. But many travellers to the Middle East still return home with the same souvenir as the travellers of the 19th century.

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### ABOALIS AVICENNE, MEDECIN.

Chap. 134.



#### Above:

The sand fly, implicated in the spread of leishmaniasis. Swiss Tropical Institute/R Knechtli

#### Right:

Avicenna, who provided an early description of cutaneous leishmaniasis.



# Homeopathic knowledge in colonial Bengal

## SHINJINI DAS

In autumn 2007, I began working on my project on the production and circulation of homeopathic knowledge in British India, with an emphasis on colonial Bengal. The historiography of health and medicine in colonial South Asia has predominantly engaged with various facets of state-sponsored Western medicine or with that of 'indigenous' practices. However, as David Arnold and Sumit Sarkar have pointed out in a recent article, the status of 'other' Western medical ideas such as homeopathy, with deep roots in British India, which fall outside a strict 'Western/indigenous' paradigm, awaits thorough historical investigation.

The fun of studying homeopathy resides precisely in its ambiguous, 'in-between' status. A set of Western ideas with claims to indigeneity, equally persistent in its claim of being traditional and modern, homeopathy inhabits a liminal space and escapes the watertight categorisations often made by historians. A few illuminating articles have dealt with homeopathy's cultural appeal and on the role of individuals in its propagation; they hint at the possibility of unearthing a rich social history, involving people from myriad class and social backgrounds.

Such so-called 'alternative' or marginal medical practices as hydrotherapy, homeopathy, osteopathy, nature-cure and the like, in their European milieu, began receiving historical attention from the late 1980s and early 1990s. Interestingly, works that opened up the possibility of studying histories of such practices were also the ones to label these practices as 'alternative'. Hence these works often ended up reinforcing the orthodoxy/alternative binary. The historical constitutions of these categories – of 'orthodoxy' and 'alternative' – have received less historical attention. I take my cue from recent work by scholars such as Roberta Bivins, who are more aware of such risks. In my work, I contest the anachronism involved in labelling practices marginal to today's biomedicine as always and already marginal or alternative. Deeper explorations into homeopathy's 19th-century pasts dispute such labelling. In a colonial context such as British India, 'orthodox' Western medicine itself was an imposed category struggling to find a strong foothold in society beyond the state-protected colonial enclaves for the greater part of the 19th century. The fluidities of the boundaries between 'orthodox' and 'alternative' are more obvious in such contexts.

During the course of my extensive, 11-month-long fieldwork in libraries and archives in and around Kolkata I became more aware of these fluidities.

As I shifted my focus from the conventional state archives (where sources on homeopathy admittedly were fewer) to alternative registers such as old publishing houses, private family collections, records of old pharmacies etc., I was able to locate an intricate network of homeopathic practitioners, manufacturers and publishers. The lively market in medical print reveals a strong presence of these ideas, keenly competing primarily with ideas of allopathy/daktari/Western medicine/scientific medicine (all labels attached to Western orthodoxy) and Ayurveda. A range of homeopathic journals and especially manuals scattered over various large and obscure libraries reconfirm the proliferation of such a network. They point towards extensive circulation of drugs, pamphlets and advertisements associated with homeopathy in the big cities such as Kolkata and Dhaka, within the mofussil, and also in villages in late 19th- and early 20th-century Bengal.



A thorough exploration of such myriad sources made me aware of deep entanglements and overlaps between historical literature about homeopathy and the institution of the family in contemporary Bengal. The literature around homeopathy invokes the institution recurrently. The family features broadly in two crucial ways. First, there is an interesting network of elite or upper-middle-class 'bhadralok' families who were invested in homeopathic treatment in various capacities – as practitioners, drug manufacturers, publishers, journal editors, authors of books and manuals, and eventually, in the 20th century, as patrons of institutions. Most of these families had links with business involving homeopathy for over two or three generations. Directly invested in commercial enterprise around homeopathy, many of them wrote tracts on the tricks of conducting successful business. They regularly published journals that systematically circulated their own and other practitioners' biographies. These serialised biographies often helped to project such practitioners as authorities of a coherent discipline. A close study of how these families competed and collaborated with each other reveals a fascinating study in 'medical entrepreneurship'.

### Above:

Homeopathy has often been a family enterprise, with women in the vanguard.

N Durrell McKenna

At another level, works published by these big families also had a profound engagement with the institution of the family. These publications involving homeopathy reflect a deep anxiety about the preservation of familial health in an era of intense Westernisation and commercialisation of social relations. Such writings repeatedly project an ideal family life and celebrate virtues including self-cure and economy, attainable through the propagation of homeopathic knowledge. Warding off the figure of the alien doctor and his expensive medications from the domain of the family remained the main concern of these tracts. They provided extensive guidelines to develop the self-curing potential of every household. One cannot but locate resonances of contemporary swadeshi, nationalism, within such concern. The issue of indigeneity and the suitability of particular forms of medicine on the Indian body were also widely discussed. Elaborate reports of homeopathic experiments with Indian flora and fauna were regularly published. The householders were actively encouraged to take part in such experiments by practising physicians. There was an ongoing discussion on the contemporary decline of Ayurvedic practices. Homeopathic texts claimed that such a decline necessitated that families be equipped with knowledge of homeopathy that was modern, Western and yet extremely suitable for the Indians.

The figures of women self-trained in homeopathy frequently featured as the vanguard of familial health. Furthermore, homeopathic literature engaged deeply with the reproductive economy of the family. Female health, especially reproductive health as the potential repertoire of future citizens, was exhaustively discussed. A related concern in such texts was the cultivation of the healthiest sexual practices. Child rearing and children's health too formed an enduring aspect of such discussions. Such texts reiterated virtues of an ethical family life. Studied in intricate detail, these texts demonstrate how the institution

of the family and knowledge of homeopathy in contemporary Bengal were mutually constitutive.

By promising to produce self-trained democratic citizen-doctors, homeopathy promoted a unique professionalisation model. However, that posed serious problems for the discipline, especially in the wake of the Medical Registration Acts passed in the early part of the 20th century. A heightened spate of institution building followed, which included schools, colleges, hospitals and professional associations. Yet various acts of transgression and corruption were noted in the ways in which homeopathic degrees were produced. The role of the entrepreneur families was also significant in this context. Their negotiation with the state on the one hand – and the countless amateur practitioners on the other – helped to promote a pure space of 'authentic' homeopathy in the mid-20th century.

My doctoral project thus studies the interface between homeopathic knowledge and notions of familial wellbeing. It looks at the ways discourses around homeopathy and on the family in colonial Bengal informed one another. It also looks at the processes and practices through which certain medical ideas were projected as a coherent 'system'. Scholars such as Jean Langford now urge us to go beyond the 'seduction of systems' and be aware of the 'emptiness' of such terms in capturing the varied perspectives on specific medical practices. While such warnings are very important, the other side of the spectrum also awaits exploration. It is historically necessary to investigate what goes into the making of a 'system' of knowledge. Studies on the processes of codification of canons, emergence of authoritative voices and the reception and celebration of figures such as Hahnemann are all extremely relevant.

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## New publication



Wellcome Witnesses to Twentieth Century Medicine: *History of Dialysis in the UK: c. 1950–1980*

Dialysis, the first technological substitution for organ function, is significant not only for the patients who benefited. It contributed to the emergence of the field of medical ethics and the development of the nurse specialist, and it transformed the relationship between physicians and patients by allowing patients to control their treatment.

This seminar drew on participants' recollections of dialysis from the early, practically experimental days after World War II, when resources for research were scant, until the 1980s when it had become an established form of treatment. Pioneers from the first UK dialysis units recalled the creation of the speciality of nephrology amid discouragement from renal physicians and the MRC, who

felt that the artificial kidney was a gadget that would not last.

International and interdisciplinary collaborations, and interactions between industry and clinic in developing and utilising the specialist technology were emphasised. Patients, carers, nurses, technicians and doctors reminisced about their experiences of home dialysis, its complications, adverse reactions and impact on family life, as well as the physical effects of surviving on long-term dialysis before transplantation became routine.

Crowther SM, Reynolds LA, Tansey EM (eds). *History of Dialysis in the UK: c. 1950–1980*. Wellcome Witnesses to Twentieth Century Medicine, vol. 37. London: The Wellcome Trust Centre for the History of Medicine at UCL; 2009. ISBN 978 085484 122 6.

This and other volumes are freely available online following the links to 'Publications' from [www.ucl.ac.uk/histmed](http://www.ucl.ac.uk/histmed).



# Central Asian tabibs in post-Soviet archives: healing, spying, struggling and ‘exploiting’

**ALISHER LATYPOV**

Ever since I commenced my research on the politics of medicine and opiate use in Russian Central Asia and Soviet Tajikistan, finding the ‘voices’ of tabibs in primary and secondary sources presented a particular challenge. While opium occupied a prominent place in this region’s Islamic medicine of the late 19th and early 20th centuries, the overwhelming majority of published sources on tabibs and their practices were written by their rivals, Russian and Soviet doctors, or by the Russian imperial ethnographers and administrators as well as other European travellers.

In these accounts, ‘the medicine of the natives’ was generally depicted as a static corpus of knowledge and practices – with local education based almost exclusively on the religious studies of the Qur’an – while both tabibs and opium often emerged as ‘demons’. In view of these problems, two recent groundbreaking works on the history of medicine in Russian and Soviet Central Asia, written based on archival research in Russia, Kazakhstan and Uzbekistan by Paula Michaels and Cassandra Marie Cavanaugh, provide only a limited perspective on indigenous healers, suggesting that these healers did not leave any written texts behind them. (While some texts may well exist and be guarded by the families of tabibs, it should be noted with particular reference to the sedentary areas of Central Asia that the Institute of Oriental Studies in Tashkent alone stores hundreds of medical manuscripts in Arabic and Persian languages, with many of them translated, transcribed and utilised in the second half of the 19th century.)

Still, when setting off for my field research in Moscow and Dushanbe libraries and archives in early 2009, I did cherish some hopes to find the records of tabibs – if not in Russia then in Tajikistan. Productive as much as it could be in all other regards, this research yielded very little new material on native healers, to say nothing of their ‘voices’. However, it helped to develop some initial ideas of what kinds of tabib-related source we can and cannot find in the post-Soviet state and Communist Party archives, and what other sources, apart from oral histories, we may use in our studies of traditional (called ‘non-traditional’ in the late Soviet period by then ‘traditional’ biomedical doctors) healing in Central Asia.

As described by Adeb Khalid (whose paper in *Ab Imperio* inspired this brief report), post-Soviet archives primarily store the records of the state organs of power, and indigenous Muslim healers feature in those records only when interacting with the state

in one way or another. In the imperial period, one rather peculiar means of such interaction was spying for or against the state. Fortune telling, reciting prayers to counter the influence of the evil eye and to expel the malevolent spirits, and the treatment of human and animal diseases were considered the best occupations for coming across many people and collecting intelligence. Both Russian and British empires readily recruited local Asian people possessing the above skills to spy upon each other and gather data in territories affected by the ‘great game’. Although one would expect some tabibs to continue supplying information for the early Soviet-era security agencies (VChK–GPU–OGPU–NKVD), tabibs more often approached the Soviet state in the 1920s as supplicants requesting certification as officially recognised doctors.

Tabibs also had to face the state’s institutions of persecution after they were outlawed in the second half of the 1920s through the Uzbek Council of People’s Commissars-enacted legislation restricting medical practice to licence holders and through the Uzbek Criminal Code’s Article 255 (which was also applied in Tajikistan until 1935), penalising indigenous medical practitioners with no state-certified biomedical education by up to one year of compulsory labour or a fine of up to 1000 roubles. When the time was ripe to ensure the ‘purity’ of the Communist Party, engaging in ‘tabibism’ served as a ground to purge some of the members from its ranks. The subjugation of ishans and other religious healers was harsher because of their overt hostility towards the new regime. A certain number of them were killed in the course of the Basmachi struggle against the Soviet troops in Tajikistan in the mid-1920s, and some others were either ‘seized’ (another word used by the Bolsheviks as a synonym for murder) in its wake or repressed in the late 1930s.

## Tabibs more often approached the Soviet state in the 1920s as supplicants requesting certification

However, compared with a small number of indigenous healers that had recorded dealings with the state, the majority of Central Asian healers went underground and remained largely beyond the reach of the state (and its vast archival collections) until the Gorbachev period. While rare pro-tabib opinions were denounced and discouraged, the state-declared victory over ‘irrational’ folk doctors and religious healers was seen as an integral part of the triumph of socialism over the backward, dark and ignorant past. In public discourse, one of the most widely portrayed images of tabibs and ishans became that of a brutal and venal exploiter (with occasional publications by the

Soviet ethnographers on ‘folk’ medicine usually being an important exception to this pattern, although there too, one finds conclusions emphasising the backwardness of tabibs as well as the harmfulness of some of the healers’ treatment methods). Flogging patients with willow branches to exorcise malicious *jinn*s implied violence and brutality; accepting as much or as little money or in-kind offerings as patients could afford symbolised greediness and exploitation. Not surprisingly, in some archival sources from Tajikistan the bloodletting by tabibs was also interpreted as patient abuse within the context of the Soviet state-regulated and -rewarded blood donation practice.

### Central Asian healers went underground and remained largely beyond the reach of the state until the Gorbachev period

In addition to the above perspectives that one finds in the post-Soviet state and party archives, there are two other kinds of source related to the local healers, albeit with their own weaknesses, that are worth mentioning with regard to Soviet Tajikistan. The first are (local Central Asian) patient case records, most notably those from mental hospitals, since it was (and still is) often on the occasion of mind disturbances that healers were consulted prior to visiting doctors – as a result of people’s robust beliefs in the ability of supernatural beings to cause mental illness, stigma, and the psychiatrists’ lack of success in explaining and resolving the major problem of schizophrenia identified as *majzubiiat*. These records can contain information on what types of healer were approached by the patient and his/her family, where, when

and what kind of assistance was received, what the perceived effect of seeing a healer was, etc. However, whenever available, this information was recorded by psychiatrists (excluding patient letters that are sometimes kept within clinical case histories) and, as demonstrated in a recently published casebook of images of mental illness in Central Asia, it can often more accurately reflect their own blaming of a healer for having presumably contributed to the development of a psychiatric disorder than provide a detailed account of healer–patient interaction.

Finally, the periodical press from the glasnost period is a fascinating source on the return of tabibs to the foreground of public discourse as well as emergence of ‘New Age’ healers in Central Asia. Numerous articles that appeared in that time not only in local but also in central Moscow press reveal a significant role that these practitioners have been playing in the region as well as great demand for their services, with patients coming from all over the union republics. Yet, based on my readings of newspaper articles devoted to the Tajik healers, I can say that they tend to be focused on a few more popular figures, their relationships with the state, their accomplishments and their hardships, and do not provide any insight into the experiences of scores of other practitioners who did not hit the headlines.

Notwithstanding all of these limitations, patient records, the periodical press and state-generated archival sources can be used critically in combination with oral histories to research non-biomedical healing in Soviet Central Asian republics, which to date remains only broadly and rather vaguely outlined.

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## New publication



Wellcome Witnesses to Twentieth Century Medicine: *History of Cervical Cancer and the Role of the Human Papillomavirus, 1960–2000*

The history, largely untold, of the development of cervical cytology, of effective screening and its ultimate success in reducing cervical cancer incidence and mortality and the viral cause of cervical cancer, took place within a complex social background of changing attitudes to women’s health and sexual behaviour.

Dr Georges Papanicolaou’s screening method (the Pap smear) started in the USA in the 1940s. It was widely used in the UK a decade later and a national programme of cervical screening was established in 1988. The association of sexually transmitted human papillomavirus (HPV) with cervical cancer was less readily accepted. The detection of HPV16 in cervical cancers at the end of the 1970s was aided by the explosion of laboratory, clinical and public health research on new screening tests and procedures.

These made possible the successful development, licensing and use of preventative vaccines against the major oncogenic HPV types, 16 and 18.

The Witness Seminar was attended by virologists, cytologists, gynaecologists, epidemiologists and others, and addressed the development of cytology as a pathological discipline. They discussed who became cytologists and screeners, the evolution of screening in the UK and elsewhere, the impacts of colposcopy and of HPV, and the discovery of virus-like particles and the development of the HPV vaccine.

Reynolds LA, Tansey EM (eds). *History of Cervical Cancer and the Role of the Human Papillomavirus, 1960–2000*. Wellcome Witnesses to Twentieth Century Medicine, vol. 38. London: The Wellcome Trust Centre for the History of Medicine at UCL; 2009. ISBN 978 085484 123 3.

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# Malarial connections: British India and beyond, 1820–1912

**ROHAN DEB ROY**

**My doctoral dissertation speaks to the histories of colonialisms, connections and the makings of categories of knowledge. It studies how the overlapping worlds of pharmaceutical business, colonial governance and medical knowledge informed each other in British India from 1820 to 1912. Examples are derived from historical literature on malaria, the cinchonas and different forms of quinine.**

This dissertation breaks away from the essentialism and anachronism that characterise most existing histories of malaria and quinine in the 19th century. Instead, it follows the shaping up and the remaking of these categories at various sites. It shows how the contours of a drug and a diagnostic category shaped one another. Different moments in the constitution of quinine as a commodity, I argue, overlapped with considerable mutations in knowledge of malaria. Quinine began to be recognised as the most valuable alkaloid inherent in the cinchona barks in the 1820s. This coincided with the publication of the first book-length treatise on ‘malaria’ in the English language, written by John Macculloch in 1827. The third annual meeting of the All-India General Malaria Committee was organised in Madras in 1912. My dissertation explores how perceptions of ‘malaria’ changed during this period. It, then, probes the different meanings of such changes.

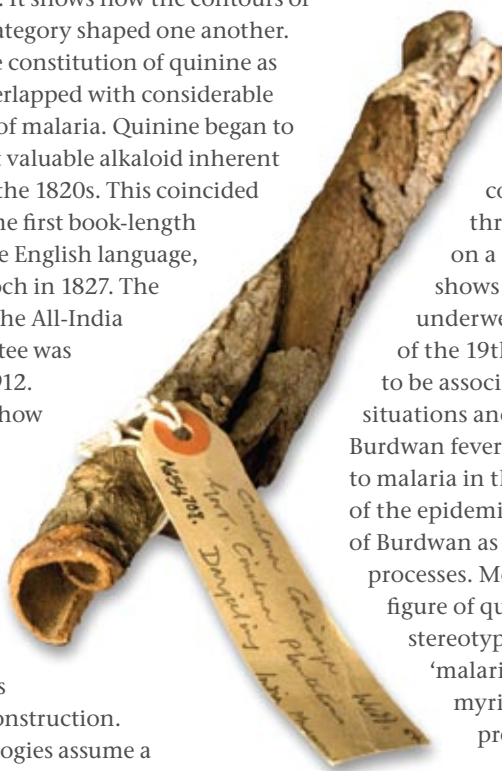
This thesis has tried variously to unsettle the expected linear sequences of scientific knowledge construction. Such anticipated chronologies assume a definite pattern where awareness of a problem inevitably precedes its solution, an answer takes shapes only after a coherent question has been posed, and prevailing understandings about a disease necessitate knowledge of a drug. This dissertation has shown how knowledge of cinchona, quinine and malaria in British India in the relevant period did not necessarily conform to such predictable patterns, and instead could be co-constitutive. It explains such co-constitution by detailing regular and enduring traffic of conversations involving races, colours, purities, classes, knowledge, credibility, legitimacies, agricultural improvements, governments, fieldwork, insects, distance, commodities, markets, diseases, laboratories, factories and plantations. These eclectic sites and themes were themselves reshaped and

reinforced while they were trapped in such elaborate discursive interchanges. I show how the worlds of political economy, colonial governance and scientific knowledge converged and sustained one another. Notions of linear temporality and claims of being connected beyond specific territorial frontiers enabled and resulted from such convergences.

The dissertation has been structured into five chapters. Between the late 1840s and the 1860s, cinchona seeds and plants from ‘natural forests’ in South America were transferred to the sites of ‘experimental plantations’ in certain Dutch, British and French colonies. There appears to have been a shift in the circulatory networks associated with the cinchonas. With emphasis on British India, chapter 1 studies how travel accounts and bureaucratic

correspondence projected such shifts as a *legitimate* transfer of a *valuable* plant. Such narrations were integrally tied to the assertions of authority on the plants. Knowledge of the cinchonas appeared to be constituted, contested and reshaped through such acts of narration. Focusing on a range of English sources, chapter 2 shows how perceived geographies of malaria underwent corresponding shifts in the course of the 19th century. Malaria increasingly began to be associated with predominantly colonial situations and landscapes. Chapter 3 focuses on the Burdwan fever – a fever epidemic in Bengal attributed to malaria in the 1870s. It shows how the making of the epidemic and consolidation of knowledge of Burdwan as a locality constituted simultaneous processes. More tellingly, it also shows how the figure of quinine could be variously invoked to stereotype both human bodies and localities as ‘malarial’. Malaria, it appeared, could cause myriad forms of debility. However, the precise ‘malarial’ identity of a malady was often established from how the suffering body responded to quinine.

Chapter 4 then asks whether ‘quinine’ itself could be considered a homogenous, fixed, inflexible category. Various ways of defining, judging and manufacturing ‘pure quinine’ appeared to coexist in various factories between the 1860s and the late 1880s. ‘Purity of quinine’, this chapter argues, was contingent upon shifting equations of authority in the overlapping worlds of pharmaceutical business and medical relief. Thus despite being invoked to determine the malarial identity of various illnesses, quinine itself remained a malleable if not elusive entity. Chapter 5 explores various lives of quinine beyond the government factories in British India from the 1890s to the 1910s. It reveals how quinine was reshaped through various



**Right:**  
A strip of rolled cinchona bark from colonial India.  
*Science Museum, London*

strategies of enforced consumption and processes of distribution. This chapter situates the vigour inherent in distributing the drug within the context of an apparently unprecedented slump in the wider imperial economy of quinine. These decades also witnessed substantial changes in the meanings associated with the diagnostic category, malaria. Along with a variety of other relevant sources, the proceedings of the Imperial Malarial Conference organised in Simla in 1909 and

of the third annual meeting of the General Malaria Committee held in Madras in 1912 encapsulated the interconnectedness between these three different stories. At the moment, I am in the process of rewriting this dissertation into a publishable book manuscript.

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## The rise and fall of the ‘celebrity pathologist’ in 20th-century England

**IAN BURNEY**

**In the courtroom, on university courses, in newspapers and on our television screens, forensics has never been so visible, so compelling and, in some respects, so contentious. With the field dominated by new laboratory-based techniques, practitioners and the public they serve live in a new era of forensic infallibility, characterised by precision methodologies deemed capable not merely of solving the most intractable of contemporary criminal cases, but also of retrospectively assessing, and often correcting, conclusions derived from past investigations.**

The declarative powers of modern forensics have penetrated the public imagination, showcased on highly rated television shows such as *CSI* and *Waking the Dead* and in bestselling crime novels. The world of forensic examination and the intricate web of social, legal and moral issues within which it operates captivate and compel our contemporary biomedical imagination.

The University of Manchester’s Centre for the History of Science, Technology and Medicine (CHSTM) and its Wellcome Unit have an established and growing interdisciplinary research agenda that seeks to place such developments in historical perspective. Dr Neil Pemberton and I have recently completed a six-month Wellcome Trust-funded pilot study on the history of 20th-century British forensics. Despite a growing secondary literature on Victorian forensic medicine and science, to date there is no systematic account of British forensics in the last century. This is a surprising void, given the astonishing transformations in the theory and practice of forensics during this period, and the growing public profile that the field has attained in recent years.

The pilot grant had two aims. In the short term, it supported preliminary research into the Sir Bernard Spilsbury collection, recently acquired by the Trust, in which we explored and reassessed the work, career and exploits of this most flamboyant of 20th-century forensic practitioners. Known to contemporaries as the ‘people’s pathologist’, Spilsbury was a pivotal figure in the criminal courtroom, where he provided crucial prosecution evidence at over 200 murder trials, and

where he exemplified a specific form of ‘body-centred’ forensic expertise grounded in his command of the mortuary and post-mortem slab. Because of the huge public interest in murder cases, and the controversies that could unfold in the wake of Spilsbury’s verdicts, this initial study limited itself to several key interwar cases that shed light on developments in his investigative methods and on changes in his standing as a forensic expert over the course of his long career as Home Office pathologist.

The longer-term objective of the pilot project is to secure funding in order to explore the broader development of forensic medicine and science in 20th-century Britain. Our goal is to rewrite the conventional (largely biographical) literature, which presents lone ‘celebrity’ practitioners such as Spilsbury as the publicly acclaimed face of a pathology-based forensics in the first half of the 20th century. We suspect that modern-day forensic science, which is now overwhelmingly laboratory-based



and underpinned by cutting-edge developments in molecular biology, has tended to reinforce this image of isolated and insular post-mortem heroics as a throwback to a more ‘primitive’ age, in which the mortuary provided the stage for the core encounter between raw corpse and its medical interlocutor. This image is set in stark contrast to modern-day crime scene investigation, where evidentiary traces are first collected by lay ‘Scene of Crime Officers’ whose identities are concealed by white suits and masks to prevent the contamination of evidence, and then stored, classified and analysed by laboratory technicians, whose identities are submerged within a highly bureaucratised forensic science landscape.

**Right:**

Sir Bernard Spilsbury’s index cards, now acquired by the Wellcome Library.



We will therefore use the Spilsbury records as a point of departure for an interrogation of the status, structure and operation of pathology as the traditional cornerstone of British forensics since its 19th-century origins, and for an exploration of its interaction with an increasingly powerful model of forensic science and criminal detection in the 20th century, one less interested in the interrogation of the body than in the investigation of 'things'.

In conjunction with this project, and with Dr David Kirby, who has a longstanding interest in contemporary

media representation of forensics, CHSTM will host an international conference in June 2010, on 'Forensic Cultures in Interdisciplinary Perspective'. Our aim is to place in analytical and historical perspective the remarkable prominence of forensics in our modern world. Conference details can be found on the back page and at [www.chstm.manchester.ac.uk/forensics](http://www.chstm.manchester.ac.uk/forensics).

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## Development of Indonesia's political culture of health: the Sukarno era, 1949–66

### VIVEK NEELAKANTAN

**My doctoral work examines the way Indonesia's political culture of health was shaped in the Sukarno era, 1949–66. While substantial research has been undertaken on the development of preventative healthcare in the Dutch East Indies – and more recently on population health in post-colonial Indonesia and health policy during the Suharto era, 1966–98 – the health policy of Indonesia during the Sukarno era has largely escaped the attention of historians of medicine.**

This era, in many ways, provides valuable insights into health policy in the early years of independence. My thesis investigates the influence of social medicine and international health emanating from the WHO in the formation of post-colonial Indonesia's political culture of health.

The post-colonial state's vision of health was embedded in the idea of 'nation building': disease eradication to build a strong and healthy nation. Indonesia's approach to social medicine was shaped by a profound concern for eugenics, i.e. production of a healthy population. The First Five Year Plan, 1956–61, was riddled with contradictions. While it acknowledged that a high birth rate neutralised the fruits of economic growth, it expressed reservations about the use of birth control for family planning. Dr Johannes Leimena, Minister of Health, was the architect of the nation's health policy. He saw that poverty and disease mutually reinforced each other in the form a vicious circle. His Bandung Plan was a pioneering step of integrating preventative and curative health through health centres at the regency level. In the 1950s, pilot projects with an emphasis on rural health, environmental health, water supply and sanitation were launched in the province of West Java, embracing the regency of Bandung. However, a shortage of funds prevented nationwide expansion of these projects.

The 'language of revolution' permeated all aspects of Indonesian public life, including health. Leimena observed that three indicators of health were life expectancy, mortality of the population and infant mortality rate: better health increased the life expectancy of the population, lowered infant mortality and raised the chances of population explosion. Therefore Indonesia was seeking to increase population through intensification of agriculture and large-scale migration from densely to sparsely populated areas of the Indonesian archipelago. Social paediatrics and obstetrics, in Leimena's vision, were important pillars for the attainment of healthy motherhood and joined the Indonesian revolution with the hope that children could reap the benefits of a better society. In the 'language of revolution', child health that embraced the physical, mental, moral and psychological development of the child was perceived as reconstructing the whole nation. Indonesian physicians such as Dr Seno Sastroamidjojo perceived social medicine as an important component of maternal and child health.

The Sukarno era could be interpreted as the 'period of optimism' in Indonesian public health, with planners focusing on building national capacity through health development and building Indonesia's self-sufficiency in the implementation of public health programmes. The Sukarno era could also be seen as the 'era of unfulfilled aspirations', as the nation was unsuccessful in its ambitions of eradicating malaria and establishing a health centre/general hospital in every district. My research is currently based on an extensive analysis of primary sources in Bahasa Indonesia such as *Madjalah Kedokteran*, *Berita Kementerian Kesehatan* and *Madjalah Kesehatan Angkatan Darat*. I will be consulting the archives of the WHO's Regional office for South East Asia in New Delhi and its Country Office in Jakarta for a critical assessment of the role played by the WHO in shaping the political culture of health.

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# Medicines and primary healthcare in the Himalayan region

## SUSAN HEYDON

Almost one-third of the world's population still lacks regular access to medicines, especially in much of Africa and South Asia, but programmes to improve global health to a large extent rely on people having access to and using medicines. The World Health Organization guidelines frame official policies in the Himalayan region, but their implementation presents many challenges. The aim of my project is to examine how medicines have influenced people's use and non-use of health services, particularly in primary healthcare, which from the late 1970s became the main focus of international and global health programmes.

Medicines are an integral part of treating sickness, not only in biomedicine but also in other medical systems. Their central role in the introduction and spread of what the Nepal Ministry of Health and Population website refers to as the “modern system of medicine”, however, has received inadequate attention in histories of medicine. Such accounts have looked at knowledge, disease, institutions and people, but their consideration of medicines is mostly an implicit assumption of their presence or lack rather than an explicit examination of their importance in health programmes and people's experiences of sickness. A much richer source of literature for the role of medicines is the many anthropological studies that have been undertaken, especially from the 1980s.

The project is at an early stage, starting with a return to my doctoral case study of Khunde Hospital in the Mount Everest area of Nepal. While references to medicines are scattered throughout my recently published book, *Modern Medicine and International Aid: Khunde Hospital, Nepal, 1966–1998*, I did not explore their centrality to medical encounters. Although it has always been called a hospital, Khunde Hospital operates primarily as an outpatient clinic with facilities for a small number of inpatients. The hospital was built in 1966 by New Zealander Sir Edmund Hillary and administered as part of his ongoing aid programme to the mainly Sherpa inhabitants of this rugged region. I principally saw medicines from the perspective of the hospital staff, whose aim was to ensure that the hospital had sufficient, appropriate medicines for treating patients. Medicines, if implicitly an integral part of medical practice, were explicitly a supply issue.

### Right:

Khunde Hospital in 1986.  
Carole Reeves

Similarly, when I looked at people's use and non-use of services between the 1960s and the late 1990s I did not focus on the medicines, yet they were central

to perceptions of efficacy that underlay people's pragmatic and selective use of the hospital and modern medicine. The many new medicines, particularly antibiotics, were revolutionising medical treatment, especially for infectious disease. Nevertheless, staff had to adapt their practice to the way people used or did not use the hospital. Short courses of medicines were best. People came for pills that could free a person from pain, but injections received a mixed response. The hospital soon became the main provider of biomedical services, but even in the late 1990s a family declined an injection of pain relief for a terminally ill patient because they believed other people would blame the hospital when he died.

Since the 1950s, mountaineering expeditions and tourists have played a major role in the introduction of modern medicine into the Everest area. Visitors (medical and non-medical) carried medicines when they travelled for their own use, for expedition employees and for treating local people who approached them when they passed through an area. The handing over of some medicine remains a key part of the medical encounter. New Zealand mountaineer Norman Hardie, in his book about his stay among the



Sherpas in 1955, wrote how an expedition could train a local employee about “the uses of the appropriate pills”, which he could then use to treat various diseases and so help to “slowly diminish the deep-rooted superstitions that exist in the home villages”. The rise of tourism has underpinned the economic development of the region. While tourists remain a source of medicine donations for the hospital, the medicines tourists carry have had an influence on medical practice there. In the case of diarrhoea, which is common, local people know tourists carry antibiotics that are effective and, unsurprisingly, they also want them.



Change remains ongoing in the Everest area. Until recently, medicines were obtained from the hospital or village clinics, either free or at minimal cost, but the first pharmacy shop has opened. This has economic implications and will also affect the way medicines are obtained and circulate in the community. It also raises issues about quality and use. In another example, the hospital's 2008/09 annual report mentions that a group of patients are on anti-hypertensive medication, which they are taking regularly.

In the past, compliance with taking medicines over long periods, such as for treating tuberculosis, has been a major challenge for hospital staff. A further issue that remains important is that Khunde Hospital continues to provide health services within the area's plural medical environment. Sherpas originally came from Tibet and a new Tibetan medicine clinic has been established in the main centre, Namche Bazar, and this is aimed at both tourists and local inhabitants.

Medicines, therefore, have a key role in prevention and treatment, and this will continue with the expansion

and development of new medicines. Increasing costs also have important implications for individuals, national governments and, in countries such as Nepal, aid organisations and international and global agencies.

In the case of diarrhoea, local people know tourists carry antibiotics that are effective and they want them

One of the conclusions from my earlier work was that, even when services were offered and adequately resourced, implementing health programmes did not necessarily work out as successfully as hoped for. Beginning in the Everest area of Nepal, but with the intention of broadening the study area, this project looks to better understand the role of medicines in people's use of healthcare services.

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## Transmission of Guinea worm in Bukhara in the 16th century

### ROBERT KILLICK-KENDRICK

Guinea worm was known in antiquity, with records dating back many centuries. It was named by Linnaeus in 1759 and formally described by Bastian in 1863. By 1914, its life cycle through copepods was known, and the danger of drinking contaminated water was fully recognised. All the information needed to attack the worm was available and, with the programme to eradicate the worm spearheaded by the Carter Foundation in full swing, it looks as if the world will soon be free from this infection for ever.

Buried in the old literature is a clear reference to contaminated water as a source of infection. Interestingly, it also records how restrictions on the use of alcohol could have favoured transmission. The reference is in Anthony Jenkinson's account of his explorations on the land route to China, 1558–60, given in full in *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation* by Richard Hakluyt (1903–05), vol. II, pp. 449–79. An edited version of Jenkinson's account of his stay in Bukhara, in modern-day Uzbekistan, is given below with the kind permission of Lance Jenott (see [depts.washington.edu/silkroad/texts/jenkinson/bukhara.html](http://depts.washington.edu/silkroad/texts/jenkinson/bukhara.html)):

So upon the 23rd day of December we arrived at the city of Boghar [Bukhara] in the land of Bactria. This Boghar is situated in the lowest part of all the land, walled about with a high wall of earth, with divers gates into the same: it is divided into 3 partitions, whereof two parts are the king's, and the 3rd part is

for the merchants and markets, and every science hath their dwelling and market by themselves. The city is very great, and the houses for the most part of earth, but there are also many houses, temples and monuments of stone sumptuously built, and gilt, and specially bathstoves so artificially built, that the like thereof is not in the world: the manner where of is too long to rehearse. There is a little river running through the midst of the said city, but the water thereof is most unwholesome, for it breedeth sometimes in men that drink thereof, and especially in them that be not there born, a worm of an ell long, which lieth commonly in the leg betwixt the flesh and the skin, and is plucked out about the ankle with great art and cunning, the surgeons being much practiced there, and if she break in plucking out, the party dieth, and every day she commeth out about an inch, which is rolled up, and so worketh till she be all out. And yet it is there forbidden to drink any other thing than water, & mares milk, and whosoever is found to break that law is whipped and beaten most cruelly through the open markets, and there are officers appointed for the same, who have authority to go into any man's house, to search if he have either aquavita, wine, or brage, and finding the same, do break the vessels, spoil the drink, and punish the masters of the house most cruelly, yea, and many times if they perceive but by the breath of a man that he hath drunk, without further examination he shall not escape their hands.

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# The Dead Sea Scrolls and medicinal plants of the Dead Sea region

## JOAN TAYLOR

In 1970, one of the strangest books ever written on the subject of religion and pharmacology was published by a philologist, John Allegro, until then seen as an authority on the Dead Sea Scrolls. In his book *The Sacred Mushroom and the Cross*, Allegro presented the idea – which he saw evidenced in the Scrolls – that Christianity was an elaborate disguise of a fertility cult that extolled a hallucinogenic fungus, *Amanita muscaria*. Since Allegro, the subject of pharmacology and the Dead Sea Scrolls has seemed somewhat tainted and no serious scholar uses his book.

However, as he pursued his bizarre and truly absurd thesis, Allegro noted some solid material along the way. He took note of the fact that the Essenes – those usually identified as being responsible for the Dead Sea Scrolls – are described by the first-century Jewish historian Josephus as having an “extraordinary interest in the writings of the ancients, singling out in particular those which make for the welfare of the soul and the body; with the help of these, and with a view to the treatment of diseases, they investigate medicinal roots and the properties of stones” (*War* 2: 136). He pointed out that this interest stemmed from a tradition that ascribed to King Solomon a great knowledge of healing, which involved not only astrology, angelology and demonology but also pharmacological lore. Allegro identified instances within the Dead Sea Scroll fragments where this was reflected. In addition, Allegro wondered whether the Essene location at Qumran beside the Dead Sea may have been because of the peculiarities of this region: he noted that Josephus described healing hot springs at a place called Callirhoe, a rue that grew at the fortress of Machaerus and what appeared to be mandrake (which Allegro identified as both a medicinal and holy plant) growing in a nearby valley, though his explanation of the regional significance veered off into the symbolic.

The study of healing and medicine in the Dead Sea Scrolls has, since Allegro, not had the attention it deserves, though from time to time in archaeological examinations of the site of Qumran and its environs mention is made of possible medicinal products manufactured there. My project is to examine anew questions relating to this topic, integrating numerous studies that have taken place over the past 40 years, so that we can better understand the significance of the Dead Sea region in terms of the various medicinal products known in antiquity that the Essenes, with their attested interest in pharmacology, must have known. For example, Josephus’s passing mention of “rue” (*War* 7: 178) was rightly noted by Allegro

as striking. Pliny identifies rue as one of the most important of all medicines, and lists 84 remedies derived from it (*Natural History* 20: 51). Pliny states that painters and engravers ate rue with bread in order to preserve their eyesight. The Greek word Josephus uses, *peganon*, most likely relates to wild rue, or *Peganum harmala*, which is the *peganon agoron* of Dioscorides (*De Materia Medica* 3: 52), used for dull eyesight. This plant grows around the Dead Sea to this day.

Can I relate such a product to the Dead Sea Scrolls directly? There is no neat text from the Scrolls that describes the uses of plants, and in fact there is good reason to suppose such lore was passed down by oral tradition, too important and secret to write down. However, the significance of restoring eyesight as one of the uses of rue is significant, because in Second Temple Judaism blind people were not allowed to be priests (Lev. 21: 16–24) and were banned from the Temple proper (2 Sam. 5: 8, cf. 4QMMT B 49–54). Within the Dead Sea Scrolls, blind people were not permitted to be part of the group (CD 15: 15–19). In Qumran’s Temple Scroll, they were not allowed in the holy city (11QTemple 45: 12–14). Nor could they participate in holy war (1QM 7: 4–5). This is why the actions of the future Messiah in restoring sight to blind people (4Q521) were so important, in order to restore a blind person to full participation within Israel. Likewise, in the New Testament, Jesus the Messiah heals blind people a number of times (e.g. Mark 8: 22–28; 10: 46–52 and parr.; Matt. 9: 27; John 9: 1–41). With the Essenes apparently interested in medicines, a plant with a renowned use as a cure for poor sight would have been of interest.

But how can we know for sure that the people who lived in Qumran used any medicines or were particularly interested in them? The curiosities of the archaeology may yet hold some clues. The best evidence thus far, however, comes from bones. When skeletons from the Qumran cemetery were excavated in the 1960s, physical anthropologists in Israel concluded that curious red staining on the bones was consistent with what would occur if madder root, containing alizarin, were ingested. Common madder (*Rubia tenuifolia* or *tinctorum*) too is a plant found around the Dead Sea. Pliny noted madder as a cure for jaundice, sciatica and paralysis (the patient taking a bath in it), as well as a dye (*Nat. Hist.* 24: 56 [94]; 19: 17 [47]). Dioscorides (*De Materia Medica* 3: 160) lists its many uses, including its power to relieve skin diseases, cure partial paralysis and cleanse the liver. If the occupants of Qumran ate it regularly, it must have been with a view to a preventative effect. This at least would show that these people consumed medicinal plants.

My study, therefore, ranges from the contextual examination of pharmacological resources around



the Dead Sea, to the healing-related texts of the Dead Sea Scrolls, to the archaeology of Qumran, and to an array of ancient literature. In examining this rigorously, perhaps some seeds of truth in Allegro's lush fantasy may yet be found.

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## Vice, medicine, the military and the making of colonial India, 1780–1867

### ERICA WALD

**Intimately woven into debates about the British army's effectiveness in India was a very real concern about the incidence of venereal disease and intemperance among the European soldiery. This was no empty rhetoric. While the rate of venereal disease among the men at some stations was as 'low' as 10 per cent, at others, it rose to as much as 72 per cent. And 10 per cent of hospital admissions were as a result of drink.**

These numbers had serious implications for the East India Company. At any given point, an average of 35 per cent of its European soldiery was in hospital with venereal disease or a drink-related illness. Treatment times varied, but a soldier admitted with primary syphilis could expect to spend no less than a month in hospital. My research explores the ways in which officers and administrators alike viewed these 'vice'-driven ills and suggests that they were seen as a risk not only to the men's health and discipline but also to Britain's ability to maintain its Empire in India. As a result, the control (or attempted control) of both venereal disease and drink was a central feature in military and medical decision making. What resulted was a series of actions that powerfully reshaped not just European relations with India but the very fabric of Indian society itself.

A coalition of surgeons and officers worked together to formulate a system to contain venereal diseases in the early 19th century. The core of the system was constituted by the lock hospitals, where diseased women were sequestered and forcibly 'treated' under lock and key. Though the system was never truly successful, it nevertheless proved to be an important blueprint for colonial officials in their dealings with a range of medical threats that followed. I analyse the ways in which the system grew out of a number of concerns and preconceptions: about the cost of the troops, the stability of the East India Company state and the low opinion that officers held of their European troops. This system, and the philosophy that guided it, had a significant impact on Indian society. The repeated failure to control venereal

infections among the European soldiery was a source of enormous anxiety and frustration for East India Company officers and surgeons. My research examines how this frustration contributed to the construction of medically influenced conceptions of India, its peoples, gender and, more broadly, race. In addition, it explores the ways in which the rise of professional societies and journals in India provided surgeons with a platform to express their concerns. I suggest that the ebbs and flows of the lock hospital system were critical in moulding commanding officers and surgeons into a powerful lobby. Moreover, the impact of their demands on the colonial state quickly spread beyond military confines to more broadly shape imperial policies.

The reforms and regulations surrounding the issue of 'vice' highlight some of the more surprising inconsistencies and vulnerabilities of the Company state. Far from being a monolith, the Company was frequently undermined by its own servants. When it came to the health of the European troops, commanding officers and surgeons pushed their own demands and agendas instead of conforming to the dictates emerging from the Writer's Building or Government House in Calcutta – and in so doing, often directly contravened 'civil' law. Thus, while it has been argued that Indian collaborators undermined the colonial state, in the case of venereal disease control, the Company's own British servants carried out such subversion. These breaks in the line of control went further still. The fear of the European soldiery that shaped the lock hospital system highlights the precarious control of officers over even (or, perhaps more accurately, especially) their European troops.

My research explores this attempted regulation of 'vice' in 19th-century India as a crucial sphere of conjuncture of the lesser-studied anxieties of colonial rule. It argues that the connections between ideas of class, sex, health and control were central to decision making within the colonial state. Moreover, it points to the ways in which the impact of such tensions reverberated not only across India, but in Britain and throughout the Empire.

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## Child Health and Welfare in Europe and the United States, 1914–2000

### JOHN STEWART

This workshop took place at Glasgow Caledonian University from 13 to 15 January 2010, the vagaries of British transport and weather notwithstanding. The event was financially supported by the Wellcome Trust (via the Enhancement Award held by the Centre for the Social History of Health and Healthcare) and the Economic History Society, with the complex administrative and funding arrangements being ably handled by the Centre's Outreach/Research Officer, Rhona Blincow. Participants were drawn from universities in Britain, Norway, Spain, Sweden and, via Skype, the USA. This embryonic network derives from discussions that have taken place over a number of years and at a number of locations throughout Europe.

An introductory session by Alysa Levene (Oxford Brookes University) on 'Medicalising the Welfare Child: Recent developments in research' appropriately set the historiographical scene. A number of themes emerged thereafter. On the issue of hospitals, contributions came from Mary Clare Martin (University of Greenwich) on children's hospitals in Britain, France and the USA, while Andrea Tanner and Sue Hawkins (Kingston University) described their important project on archiving and accessing the records of hospitalised children in Victorian and Edwardian London and Glasgow. Dealing with the sick child, and attempts to stop children becoming sick, were the topics of papers by William Hubbard (University of Bergen) on Scottish

infant mortality, Lawrence Weaver (University of Glasgow) on Glasgow's contribution to international paediatrics post-1918, and Chris Nottingham and Chris Robinson (Glasgow Caledonian University and the Scottish Government) on child protection in Scotland.

More obviously taking the perspective of children and young people themselves, John Welshman (Lancaster University) discussed his work on evacuation during World War II while Kathleen Jones (Virginia Tech) delivered, via the magic of Skype, her paper on historical and contemporary perspectives on youth suicide in the USA. The Spanish viewpoint came from Enrique Perdiguero (University of Alicante) on child health and welfare under the Franco dictatorship and Josep Barona (University of Valencia) on medicine and maladjustment in the pre-Franco era.

Indeed, the notion of maladjustment and its implications was taken up by a number of participants. Sarah Hayes (University of Exeter) described her research on the maladjusted child in postwar Britain. From Scandinavia, meanwhile, Kari Ludvigsen (University of Bergen) explored the role of psychiatrists in promoting child mental health in Norway from the 1930s to the 1960s, while Karin Zetterqvist Nelson (University of Linköping) examined the development of Swedish child therapy over a similar period. Science, 'normality' and surveillance were addressed by John Stewart (Glasgow Caledonian University) in his paper on the notion on 'normalcy' in British child guidance, with Astri Andresen (University of Bergen) engaging with the politics of surveillance medicine in respect of Norwegian education.

#### Above:

A British hospital's children's ward, 1920.

Finally, Mathew Thomson (University of Warwick) analysed the landscape of the postwar British child from the perspective of psychology and psychological health, and Bengt Sandin (University of Linköping) addressed a broad range of child health issues in his presentation on, inter alia, the political significance of children's physical and mental wellbeing and children's rights.

It has often been remarked that the history and meaning of child health has been seriously underexplored by historians, not least in Britain. The

Glasgow workshop was, it is to be hoped, an important step towards addressing this gap in our historical understanding. Future meetings of the network are anticipated and discussions are taking place as to how this might be further promoted and expanded. Anyone interested in this field is welcome to contact me.

Professor John Stewart is Director of the Centre for the Social History of Health and Healthcare at Glasgow Caledonian University (E John.Stewart@gcal.ac.uk).

## Global Health Histories: the learning curve continues

### THOMSON PRENTICE

For the second successive year, the Global Health Histories (GHH) seminar series at the World Health Organization ended in December with a final flourish – and a commitment to the future. The seminars, organised by the WHO's Department of Knowledge Management and Sharing (KMS) and the Wellcome Trust Centre for the History of Medicine at UCL, are clearly going from strength to strength.

This was emphasised by Dr Nils Fietje, representing the Trust, when he spoke to a packed audience at the final seminar in Geneva. "It is the Wellcome Trust's great pleasure to support this unique seminar series which enables historians of medicine to engage with policy makers right here at the heart of global health politics, the WHO Headquarters," he said. "We therefore hope that these seminars can be an important step for closer collaboration between historians, policy researchers and policy makers."

Further endorsement for the initiative came from WHO Deputy Director-General Dr Anarfi Asamoah-Baah, who attended the December seminar. There was appreciation, too, from Dr Najeeb Al-Shorbaji, Director of KMS, and Dr Hooman Momen, Coordinator of WHO Press, who leads the GHH project and co-chairs the seminars with Dr Sanjoy Bhattacharya.

Dr Al-Shorbaji commented: "Learning from history is our prime objective in this series. There are many lessons in global health that need to be shared and understood to help in avoiding making the same mistakes. Knowledge is made of science and experience. Experience is often the best teacher in the case of health. We want to document and share this experience for present and future generations of health researchers, practitioners and policy makers."

The seminars began in January 2005 and have grown steadily in prestige and popularity since then. There

were only three lectures in the first year, but that rose to ten in 2006. With the full support of the Trust in co-organising the series, a further ten were held in 2008 and in 2009. The lunchtime seminars have always been popular among WHO staff, who regularly filled the 50-person capacity of the WHO's main library meeting room to hear them.

But the scope broadened dramatically in the spring of 2009 with the introduction of webinars – using the internet to broadcast the sessions internationally, with 'attendees' able to hear the speakers, see the presentations and participate with email questions and comments. This innovation was piloted by the WHO through the GHH seminars, and is increasingly influential.

"It's a terrific advance," said Dr Sanjoy Bhattacharya, who has co-organised the seminars on behalf of the Centre, with generous support from the Trust, for the last three years. "Thanks to the technology, the seminars now have a worldwide audience of interest to thousands of academics, policy makers, practitioners, researchers and others. We have had participants from as far apart as West Africa and South-east Asia, and the speakers are finding that the webcasts lead to follow-up discussions and contacts with interested parties that they would not otherwise have had. All in all, the 2009 seminars were a huge success."

All of the ten seminars in the series were devoted to the subject of tropical diseases, and were also supported by TDR and the WHO Department of Control of Neglected Tropical Diseases. The series began in April with a discussion on why the elimination of leprosy has been so elusive, led by Professor Michael Worboys, Director of the Wellcome Unit for the History of Medicine at the University of Manchester, UK, and Dr S K Noordeen, former Director of the WHO Leprosy Elimination Programme and former President of the International Leprosy Association.

Later in April, the topic was the eradication of guinea worm, with Professor Anne Marie Moulin, Research Director of the Centre National de la Recherche



Scientifique in Paris, and Dr Dirk Engels, Coordinator of Preventive Chemotherapy at the Department of Control of Neglected Tropical Diseases, WHO, Geneva.

The continuing controversy surrounding sleeping sickness was the focus of the first of two seminars in May. It was presented by Dr Guillaume Lachenal of the Department of the History and Philosophy of Science at the University of Paris Diderot and Dr Jean Jannin, Coordinator of Innovative and Intensified Disease Management at the WHO's Department of Control of Neglected Tropical Diseases.

### The scope broadened dramatically with the introduction of webinars – using the internet to broadcast the sessions internationally

Attention then turned in the following presentation to river blindness, or onchocerciasis. Dr Jesse Bump of Harvard University revealed the fascinating detective work that defined the disease in the first place and then explored how political and historical forces gave it an international focus. Dr Janis Lazdins-Helds, from TDR, then discussed how research has always been the key to success in the international control effort.

Later, Dr Bump reflected on the experience. “The GHH seminar was a wonderful forum in which to share diverse perspectives on neglected tropical diseases, which represent some of the most pressing problems in global health,” he said. “This dialogue between historians, policy makers, scientists and practitioners is as valuable as it is rare. The organisers at the Wellcome Trust and the World Health Organization are to be commended for their vision. I was hoping to provide scientists and field staff with a long-term perspective on the achievements and challenges in river blindness control. I was pleased to leave with a much deeper appreciation of the science and personalities involved.”

After a summer break, the series resumed in September to examine malaria, a disease that has defied a global eradication programme and continues to resist countless major public health interventions. The speakers here were Peter Brown, Professor of Anthropology and Global Health at Emory University, USA, and Dr Andrea Bosman, a medical expert on the disease and a senior member of the WHO Global Malaria Programme in Geneva.

In October, the next international historian on stage was Professor Simone Kropf of the Oswaldo Cruz Foundation, Rio de Janeiro, who traced the 100 years since Chagas' disease was first identified in her country. Her co-speaker was Professor Gabriel Adrián Schmunis, formerly of the Communicable Diseases Unit of the WHO American Regional Office in Washington, DC.

Professor Kropf said afterwards: “My participation in the seminar strengthened my conviction that historians and public health people can and must

engage in dialogue about the contemporary global health agenda and how today's challenges were historically shaped. The current debate on neglected diseases, for example, stands to gain from an exploration of how particular health topics have been assigned varying degrees of political and social relevance over time, depending on national contexts and on the groups, institutions, and interests involved.

“An historical perspective to medical facts and events is a good path to provide knowledge and insights for policy actions. History in this way is important not just as learning, but also to demarcate actions in the present and the future. It was thus a wonderful experience for me to present my research work to people who are engaged in planning and conducting these actions.”

Another seminar in October featured visceral leishmaniasis, also known as kala-azar. Two eminent experts shared their decades of experience. Professor Robert Killick-Kendrick, Honorary Research Fellow at Imperial College London, is a leading parasitologist specialising for many years in the disease, while Dr C P Thakur, Emeritus Professor of Medicine and former Minister of Health in India, helped to revolutionise treatment of the condition. Dr Thakur is a member of the Indian parliament, and thus reflects another important ‘first’ for GHH, in getting national and state-level legislatures involved in the seminar discussions.

Malaria was again the subject in November. Professor Randall Packard, Director of the Institute of the History of Medicine at Johns Hopkins University, USA, probed the limitations of the Roll Back Malaria approach and the consequences for the prospects of malaria, while his co-speaker, Dr Axel Kroeger, a TDR scientist at WHO, described the “institutional memory loss” in the history of vector control efforts.

### “Participation strengthened my conviction that historians and public health people can and must engage in dialogue about the contemporary global health agenda”

The series ended in December with a penetrating look at the changing role of pharmaceuticals in world health. Professor Jeremy A Greene, of Harvard University, Brigham and Women's Hospital and Harvard Medical School, described the evolution of the essential medicines concept. Then former TDR director Dr Adetokunbo Lucas critically examined TDR's impact on the control of leprosy, onchocerciasis and Chagas' disease.

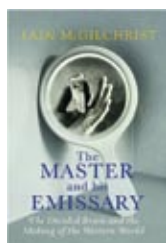
He also discussed the new phenomenon of “pharmaco-philanthropy”, in which the pharmaceutical industry seeks partnerships in promoting the health of poor people in poor countries, citing Merck's commitment to the donation of ivermectin to control onchocerciasis “for as long as is needed” as the prime example.

Professor Greene said after the final seminar: “The Global Health Histories initiative sponsored by the WHO and the Wellcome Trust has taken a remarkable step in coordinating a series of focused conversations that pair historians of global public health with past and present leaders in global health policy. The result is a productive dialogue regarding the promise and pitfalls of international health programmes in the 20th and early 21st centuries. As a scholar and a physician, I have gained immeasurably from my participation in this project and will be excited to see it push forward in the years to come.”

The UCL Centre has been able to raise funding for a series of GHH seminars in 2010, which will deal with emerging issues of global public health importance (see back page). The Centre is also involved in applying to the Trust for further support for the continuation of the initiative over the course of five years, between 2011 and 2015.

Thomson Prentice is former Managing Editor of the World Health Report and former coordinator of Global Health Histories, WHO, Geneva ([E.thomsonprentice@wanadoo.fr](mailto:E.thomsonprentice@wanadoo.fr)).

## The Master and his Emissary: The divided brain and the making of the Western world



### ROGER COOTER

There comes a point in this book when one begins to wonder about the cerebral solidity of its author, Iain McGilchrist. For me that was after the first few pages, when the number of “I believe”, “likely”, “might” and “if it is true that” came to match the number of unsupported assertions and non sequiturs.

Then comes the proposition and the point of the book: that human nature can be reduced to the interactions between the brain’s right and left hemispheres with their different modes of experience, and, hence, that the whole of the history of the Western world can be read through this divide. Like the brain, the book is parted into two asymmetrical halves, the first providing the ‘evidence’ to overturn the view that the brain’s left hemisphere is its better half with its alleged monopoly on reason, the second applying this insight to the history of the Western world.

Part one showers the right hemisphere with the noblest human attributes: the gift of metaphor, empathy and intersubjectivity, unfocused attention and concern “with the whole of the world as available to the senses”. Its frontal lobe, in particular, is prized as “important for flexibility of thought”. The left, on the other hand, concerned with the “whatness” of things in contrast to the right’s “howness”, is cast as wicked beyond belief when left to its own devices. Operating apparently according to a “local strategy”, as opposed to the right’s “global strategy”, it can only “re-present” things, categorise them, reduce them. Logic, linearity and philosophy are its boast, along with “scientific materialism with its reductive language”. It is what permits TV, the internet and technology in general to dominate our lives; it is what facilitates “bowling alone” or social anomie, together

with self-abuse, suicide and the disparagement of religiosity, spirituality and transcendence. It is what enables the commodification of the natural world via appeals to “biodiversity”. And it is what lies behind the failure to appreciate classical music, the production of shallow and meaningless postmodern art, and just about everything else, it seems, that does not befit the value system of McGilchrist, consultant psychiatrist and thrice-elected Fellow of All Souls College, Oxford. The left might be the ‘master’ but it needs its ‘emissary’ on the right, he insists, and vice versa. In fact, however, the left hemisphere is “a wonderful servant, but a very poor master”.

This anthropomorphism of the brain’s hemispheres reaches its apogee in part two, where the evolutionary bihemispheric history of mankind reads like a crude version of Colin Wilson’s *Mind Parasites*, with the tyrannical-tending left hemisphere – “ultimately narcissistic” and “subject to paranoia” – capable even of issuing propaganda to the right. Except for during the Renaissance, the history of the West is little more than the story of the left outflanking the right, literally outgrowing it. Predictably, it all begins in ancient Greece with those damn philosophers and their logic. Then there is the Enlightenment with its effort to master dear old nature, and on up to today. We learn how the left “pissed on religion, as it had pissed on art”, driven by its by relentless desire “to manipulate and control the world for its own pleasure” and its compulsion to bureaucracy, systems of abstraction and reification. The Industrial Revolution was a particularly nasty cerebral moment, enabling the left hemisphere “to make its most audacious assault yet on the world of the right hemisphere”. As “man’s most brazen bid for power over the natural world”, the Industrial Revolution swept away “cultural history”, “creating of a world in the left hemisphere’s own likeness”. It goes without saying that, like modernism in art (to which many pretentious pages are devoted), fascism and Stalinism were both expressions of “the deep structure of the left hemisphere’s world”, though it’s not too clear who is actually meant to be in history’s driver’s seat.

And so it goes on through near 600 pages of dense print. Lost in his effort to restore a master/servant relationship without “left hemisphere hubris”, McGilchrist fails to see how profoundly “leftist” he himself is in his neo-phrenological reduction of history and personhood to brainhood. Wholly premised on an evolutionary model of change (condensed to actual changes in the asymmetry of the brain over 500 years), *The Master and his Emissary* remains locked in the categories and linearity it attributes to the left hemisphere in the making of the Western world. Neither “nature”, “human nature”, “the individual” and “consciousness”, nor the “brain” and “history” are ever considered as categories historically constructed for political purposes. To claim, for example, that “moral judgment involves a complex right-hemisphere network” is to leave more unsaid than spoken about what constitutes “moral sense,” never mind that it has been differently constituted over time and place. So, too, with McGilchrist’s abundant tabloid provision of cerebral “deficiency” explanations for gambling, homosexuality, eating disorders, alcoholism, drug addiction and so on – all nothing more than (and long since critiqued as) reductive medicalised means to asserting social normativity.

Such, alas, are our ‘neural’ times. *The Master and his Emissary* is but one of more than a dozen books that have been issued over the past two or three years – all by academically prestigious publishers – on how

neurological evidence is supposed to allow us to understand ethics, aesthetics, philosophy, politics and history. It is easy to dismiss as it nonsense on stilts, as ‘pop neuro meets pop history’ or, more critically, as a cerebrally mediated celebration of elitist liberal individualism dressed up in would-be learned quotations from Nietzsche, Wittgenstein, Whitehead, Woolf, Wordsworth and other ‘great minds’ (pardon, ‘great brains’). But the trend runs much deeper, culturally speaking, and has serious implications for the understanding of the making of the modern world gained over the last half century or so, not least through the history and philosophy of science and through the literary turn. Books like this, written in ignorance of these developments or arrogantly over them, should be dismissed, but not lightly. In constituting the ‘neuro-turn’ their implications are far more historically profound than the neuro-based profundities they purport to reveal.

McGilchrist I. *The Master and his Emissary: The divided brain and the making of the Western world*. New Haven and London: Yale University Press; 2009.

Roger Cooter is a Professorial Fellow at the Wellcome Trust Centre for the History of Medicine at UCL (E r.cooter@ucl.ac.uk).

## Call for papers

**Fabricating the Body: Textiles and human health in historical perspective**  
**Pasold Research Fund Conference**  
**Centre for Medical History,**  
**University of Exeter**  
**6–8 April 2011**

This conference aims to bring together historians of textiles/clothing and of health with scholars of social, medical, cultural and economic history to examine the rich connections between textiles, human health and welfare, environmental issues, and self-expression (including ‘sunlight seekers’ and ‘body culture’ movements of the past 150 years).

The conference welcomes papers that will address five main themes:

- Early modern and modern textiles manufacturing and the association of benign and malign influences in the growth of industry and the impact on the labour force, land and water use.

- The modern environmental costs of textiles production, from soil utilisation (and erosion) to the chemical manufacture of man-made fibres and the consequences of toxic minerals and chemicals for both workers and the wider community.
- The animal world and the costs of textile and skin production: hunting, farming, and human–animal health concerns. The rise of a new politics of health around animal utilisation.
- The textile sector in relation to future environmental degradation, bio-health and sustainability.
- The impact of weather and weather-related textiles and clothing on health.

To apply, please forward a 300-word abstract of the proposed paper, together with a one-page CV, to Professor Jo Melling, Centre for Medical History, University of Exeter, Rennes Drive, Exeter EX4 4RJ (E j.l.melling@exeter.ac.uk).

The closing date for proposals is 31 May 2010.



# Power, Knowledge, Medicine: Ayurvedic pharmaceuticals at home and in the world



**THERESIA HOFER**

Bridging the disciplines of Indology, medical research, history and medical anthropology, *Power, Knowledge, Medicine* is a unique contribution to the growing number of studies on the transformation of Ayurveda in colonial and post-colonial India and an ever more globalised world.

The protagonist of the book is the ‘Ayurvedic pharmaceutical’, which has now become ubiquitous in Indian markets and high-street stores in urban centres and small towns. It has also made its long way to Europe and America, where it is predominantly sold as ‘nutritional supplements’, part of a growing market for complementary and alternative medicines.

After a well-informed discussion of the plurality of classical Hindu medicine, including its fruitful encounters with other medical systems, Madhulika Banerjee locates the birth of the Ayurvedic pharmaceutical in the late 19th century. This was a time when Indian medical practitioners had been encountering hostility from the colonial state towards their practice and the ‘unscientific’ nature of their knowledge, epitomised by the closure of indigenous medical colleges and the Medical Registration Act of 1853. By the 1890s, the colonisers’ consolidation of power made political responses to the state unfeasible. Various practising vaidyas began instead to compete with biomedicine through the manufacture – and mass production – of Ayurvedic drugs and cosmetics (some firms that were established in this period, such as Dabur and Arya Vaidya Sala, still exist). Banerjee interprets this as a ‘political’ response.

Policies towards medical practice, education and production from Indian independence to the early 21st century are summarised clearly. Then Banerjee discusses the role, responses and resistance to state policies from civil society. Two of its sectors – the market and non-governmental organisations (NGOs) – are described with respect to how they influenced the further journey of the Ayurvedic pharmaceutical. Here, Banerjee draws attention to NGOs working in primary and community health initiatives incorporating traditional knowledge as part of a larger critique of ‘development’. Later, she brings to the fore the question of to what degree use of traditional knowledge (when brought together with selected and already-established health-promoting

measures) may be able to counter the trend that has been set in motion. That is, that the Ayurvedic pharmaceutical caters increasingly to an upper-class and foreign consumer, thereby taking traditional health and medical knowledge away from people on the fringe of the global market. A central irony is that this latter group have for centuries transmitted the very knowledge that now serves as the basis for others to make profits and have ‘alternative’ health benefits.

Two chapters discuss the commercialisation, standardisation and ‘pharmaceuticalisation’ of Ayurveda. Dabur, founded in 1884, serves as a case study, before Banerjee discusses intersections of these processes with the logics and “ill-logics” of the global market, and international standards of safety, quality and efficacy in the making of modern Ayurvedic medicines.

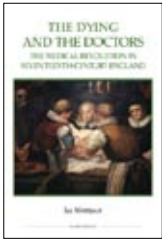
Banerjee’s book reflects the current imbalance of power over the future course of Ayurveda and local medical knowledge in India, between big money and a biomedically or at least ‘science’-dominated health and education system as opposed to people’s power and knowledge in the many grassroots and other social and health movements. The author makes us think about the impact there would be in bringing Ayurveda and traditional knowledge on a larger scale back to the people: as an inexpensive healthcare option, as a way to generate local income and regain control over local environments, and as a sustainable natural resource.

As a student of 20th-century transformations of Tibetan medicine, I appreciated Banerjee’s book and enjoyed how it made me think anew about the similarities and differences in the transformation of traditional medicine in India, China and Tibet. Banerjee also carefully situates a host of sources and debates in their historical, social and economic context. Like few others she speaks with authority on the links between the politics, economics and cultures of medical systems in India, and also weaves into the account her own experience and acute perception of trends in Indian culture and society. This book will of course be of interest to medical anthropologists and historians of South Asia; however, it deserves to be read by those working in development, public policy and medical research as well.

Banerjee M. *Power, Knowledge, Medicine: Ayurvedic pharmaceuticals at home and in the world*. Published in: *New Perspectives in South Asian History*. Hyderabad: Orient Blackswan; 2009.

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# The Dying and the Doctors: The medical revolution in 17th-century England



**ERIN SULLIVAN**

The 17th century brought great changes in medicine and science, in England and abroad. Most famously, the formation of the Royal Society and the concomitant rise of empiricism led to a re-evaluation of the Renaissance belief in ancient knowledge as most authoritative. Increasingly, writers questioned classical precepts and suggested that the future, not the past, might hold the promise of enlightenment.

While intellectual historians have long emphasised the dynamism of this century – politically, philosophically, religiously, scientifically – social historians of medicine have found it more difficult to illustrate on a wide scale many of the shifts they suspect to have taken place. Ian Mortimer's *The Dying and the Doctors* examines the changes in access to medical care among the gravely ill and dying. Drawing on nearly 200 000 probate records, official parish documents itemising a deceased person's assets and debts to value his or her estate, Mortimer analyses the frequency with which medical care was enlisted at the deathbed over the long 17th century. He focuses on Kent, Berkshire, Sussex and Wiltshire, where these records are plentiful – and argues convincingly that the purchase of medical assistance increased dramatically.

Mortimer's main thesis is that this was an era of marked 'medicalisation', in which orthodox medicine played a growing role in the understanding and treatment of serious illness. While, for instance, only 5 per cent of East Kent probate records in 1570–99 showed that medical aid had been sought for the dying person, by 1690–1719 a full 50 per cent did. Mortimer further shows how such increases can be found in multiple counties and among all sectors of the population, though the rates of growth vary. Mortimer finds that his counties show more idiosyncratic histories in terms of the influence that living in an urban versus a rural area might have on ability to receive medical treatment. In East Kent, "the medical disadvantage of living in a rural area had all but disappeared by 1690", whereas in rural West Sussex and Wiltshire, country dwellers saw doctors markedly less than their city counterparts.

The study is highly empirical, breaking the language of probate records into more manageable datasets. Such studies inevitably lead to questions about how the written word is translated into numbers and percentages, and Mortimer does an admirable job of

explaining his steps. In several cases he highlights how generalised figures can be misleading, obscuring important differences. He accordingly divides his data into several subsets, always carefully explaining his rationale. At times, this makes for ponderous writing, with paragraphs, tables and charts full of numbers. There is no doubt, however, that Mortimer's work is rigorous and cautious, enabling readers to overview a truly vast section of 17th-century society.

One disadvantage is that it can feel under-theorised and under-referenced. The data does not always speak for itself, and in places it is up to the reader to link Mortimer's work with that of others. A section on the 'occupational identity' of medical practitioners, for instance, omits reference to Hal Cook's contrary thesis in *The Decline of the Old Medical Regime in Stuart London*. Though this study is not London-based, as is Cook's, one would still expect more active engagement with other research in the field. Similarly, Roger French and Andrew Wear's *The Medical Revolution of the Seventeenth Century* receives little comment here, a puzzling omission given their shared emphasis on the 'revolutionary' nature of this period.

Instead, Mortimer maintains a firm focus on his datasets, and while they certainly are impressive, they at times lend the study a Whiggish feel. Particularly in discussing the role of religion and astrology in healing, he appears to esteem the growing reliance on medicine, the assumption being that this is more rational and effective. One can't help remembering that all the individuals who form the basis of the datasets had indeed died, regardless of their use of medical services. Whether they found relief in such treatments, and whether increased medical provision was successful in preventing other deaths, remain unanswered.

Still, what Mortimer does do, he does well. This study involved a tremendous amount of research, and his calculations and conclusions will prove a valuable resource for early modern scholars and historians of medicalisation more generally. His thorough use of probate records, previously very under-utilised sources, reminds historians that our understanding of the past should emerge not just from books and treatises but from the wide variety of things people left behind.

Mortimer I. *The Dying and the Doctors: The medical revolution in seventeenth-century England*. London: Royal Historical Society; 2009.

Erin Sullivan is a doctoral candidate at the Wellcome Trust Centre for the History of Medicine at UCL.  
(E [erin.sullivan@ucl.ac.uk](mailto:erin.sullivan@ucl.ac.uk)).

# Forensic Cultures in Interdisciplinary Perspective

An international conference hosted by the Centre for the History of Science, Technology and Medicine and the Wellcome Unit, University of Manchester, 11–12 June 2010, and sponsored by the CHSTM and the Wellcome Trust.

This conference places the remarkable prominence of forensic science and medicine in contemporary culture in analytical and historical perspective. It brings together leading scholars from history, sociology and socio-legal studies, media and cultural studies, and practitioners working within the diverse spaces of forensic culture – from crime scenes and biomedical laboratories to television studios.

## Sessions and speakers

**1. Broad Themes:** Christopher Hamlin (University of Notre Dame), Michael Lynch (Cornell University), Paul Roberts (University of Nottingham).

**2. Historical Case Studies:** Ian Burney/Neil Pemberton (CHSTM), Anne Crowther (University of Glasgow), Alison Winter (University of Chicago).

**3. Practitioner Perspectives:** David Foran (Michigan State University), William Haglund (International Forensic Program, Physicians for Human Rights), Caroline Wilkinson (University of Dundee).

**4. Screening Forensics:** Barbara Machin (creator, *Waking the Dead*), Nigel McCrery (creator, *Silent Witness*).

**5. Analysing Practices:** Simon Cole (University of California, Irvine), Gary Edmond (University of New South Wales), Barbara Prainsack (King's College London).

**6. Forensic Publics:** Deborah Jermyn (Roehampton University), David Kirby (CHSTM), Michael Sappol (National Library of Medicine, National Institutes of Health).

For more information, please visit [www.chstm.manchester.ac.uk/forensics](http://www.chstm.manchester.ac.uk/forensics).

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The next issue of *Wellcome History* is due out in summer 2010.

*Wellcome History* is published three times a year: in spring (March/April), summer (July/August) and winter (November/December). Please send any contributions to the Editor, Sanjoy Bhattacharya, two to three months ahead of your intended publication date. The Editor maintains a strict first come, first served policy – so, if an article is sent after a particular issue has been filled, it will have to wait for publication in the next available issue.

Contributor guidelines are available at [www.wellcome.ac.uk/wellcomehistory](http://www.wellcome.ac.uk/wellcomehistory)

Contributions should preferably be pasted into an email and sent to:

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# Global Health Histories Seminars

A new series of the World Health Organization's Global Health Histories seminars, dealing with emerging issues of global public health importance, has been launched for 2010. Speakers include historians of international and global health, as well as internationally recognised scientific experts.

The 2010 series is being supported by the Wellcome Trust Centre for the History of Medicine at University College London and the Wellcome Trust. All seminars will be held in the WHO Library in Geneva, from 12.30 to 14.00, and are open to all interested individuals.

## 23 April: Mental Health

Professor David Wright, McMaster University, Ontario, Canada; Dr Shekar Saxena, WHO.

## 12 May: Viral Haemorrhagic Fevers

Professor Melissa Leach, Sussex University, UK; Dr Pierre Formenty, Emerging and Dangerous Pathogens, WHO.

## 23 June: Ageing

Professor Muriel Gillick, Harvard University, USA; Dr John Beard, WHO.

## 7 July: Influenza

Professor Patrick Zylberman, Centre National de la Recherche Scientifique, France; Dr Sylvie Briand, WHO.

## 15 September: Diabetes

Professor Chris Feudtner, Children's Hospital of Philadelphia, USA; Dr Ala Alwan, WHO.

## 13 October: Tobacco

Professor Virginia Berridge, London School of Hygiene & Tropical Medicine, UK; Mr Vijay Trivedi, WHO.

## 17 November: Obesity

Professor Tom Baldwin, University of York, UK; Dr Francesco Branca, WHO.

## 8 December: Plague

Dr Kavita Sivaramakrishnan, Harvard University, USA; Dr Eric Bertherat, WHO.

For more information, see [www.who.int/global\\_health\\_histories/seminars/2010/](http://www.who.int/global_health_histories/seminars/2010/).



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