growth.[27] Further, these chapters seek not only to provide narrative case studies, but to examine the tension between theory and practice – an area of medical history identified in the 1960s by Ackerknecht as neglected, but one that has proved remarkably hard to penetrate.[28] These tensions emerge as continuities from the medieval to the modern – the timeless adaptation of ideals to meeting everyday demands.[29] Are we on the tipping point of being able to define a hospital as a location or a set of practices? Britain stopped counting 'hospitals' in 1992, and now publishes statistics on the activities of hospital *trusts* – often spread across multiple sites. In the United States hospital activities now include the provision of rehabilitation and post-discharge care under schemes with names such as 'hospital without walls' and 'hospital at home'.[30] The only remaining certainty is the patient.

27 Martin McKee and Judith Healy (eds), *Hospitals in a changing Europe* (Buckingham: Open University Press, 2002), 11.

28 Erwin H. Ackerknecht, 'A plea of a "behaviourist" Approach in Writing the History of Medicine', *Journal of the History of Medicine and Allied Sciences* 22 (1967), 211–214. See also a review of subsequent historiography that has used patient records to address Ackerknecht's plea: Guenter Risse and John Harley Warner, 'Reconstructing Clinical Activities: Patient Records in Medical History', *Social History of Medicine* 5/2 (1992), 183–205.

29 For a good example of the tension between public and private science see Gerald L. Geison, *The Private Science of Louis Pasteur* (Princeton: Princeton University Press, 1995).

30 M. Hensher and N. Edwards, 'Hospital provision, activity and productivity in England since the 1980s', *British Medical Journal* 319 (1999), 911–914; M. Hensher, N. Edwards and R. Stokes, 'International trends in the provision and utilisation of hospital care', *British Medical Journal* 319 (1999), 845–848.

HOSPITAL LIFE

THEORY AND PRACTICE FROM THE MEDIEVAL TO THE MODERN

Edited by Laurinda Abreu and Sally Sheard

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Introduction

> I look to the abolition of all hospitals. But it is no use to talk about the year 2000.
> — FLORENCE NIGHTINGALE to SIR HENRY BONHAM CARTER, 1867

Nightingale's faith in the progress of health and society was naïve. The millennium arrived, and we still placed hospitals at the heart of most national healthcare systems. She would have applauded the World Health Organisation's Alma Ata declaration in 1978, which aimed to re-balance healthcare towards primary health care – a more efficient and equitable use of resources – but this has not yet come to pass. Hospitals continue to dominate, to suck the majority of funds from national healthcare budgets. This might seem an unnecessarily negative or cynical attitude, but it resonates with expert opinion accumulated since Nightingale's time. The late nineteenth century witnessed a sea-change in attitudes to hospitals. The impact of scientific advances, especially through the development of anaesthesia and antisepsis, new imaging techniques and pharmaceutical treatments have contributed to improvements in the capacity of hospitals to treat patients, not just to care for them. But we still lack a sensible justification for devoting such a large proportion of scarce financial resources to these expensive physical, social and economic constructions.

This book, in which the majority of the chapters were initially presented at the International Network for the History of Hospitals conference, held in Lisbon and Évora, Portugal in April 2011, is focused on the enduring tensions between theory and practice, between expectations and experiences. It reflects the fact that hospitals are *living* entities, they are more than the individual components of buildings, staff and patients.

Previous hospital histories – whether monographs or edited collections – have usually chosen to focus on one of these particular aspects. Although they have provided an essential depth of analysis, they have often avoided discussing the bigger picture – how the operation of these institutions has depended on ritual and routine, and on a fine balance between internal systems and external pressures – economic, social, cultural and political.[1]

Hospital life should be easy to write about – it has clear routines based on daily, weekly, and sometimes seasonal requirements. One imagines that the patient is at the centre of these routines, especially of eating, drinking, sleeping, washing and treatments. However, although they are the subject of such activities – and without patients there would be no hospitals – we find that frequently the routines have been shaped by other objectives, such as financial or staffing needs. Analysing the history of how hospitals have functioned is a very different task to looking at its human and physical components. There is knowledge that can be contributed from studies of how doctors and nurses work (teams, shifts, pay, skills), and from occasional patient perspectives, but it is difficult to put one's finger on what makes a hospital tick at any point in time. Getting to the *ordinary* in hospital history is challenging. It is often silent, unrecorded. Patient records, for example, before the twentieth century rarely recorded the point at which medical treatments were stopped as patients recovered.[2] Hospitals are the most frustrating of institutions to study, with the human component – patients – constantly changing. Heraclitus' saying: 'No man ever steps in the same river twice' seems particularly apposite for hospital histories.

A more fundamental question that needs to be raised is whether it is possible to write about such a diverse range of institutions and hope to define them all by the same label. Can we usefully (and legitimately) compare the medieval hospital with the twentieth century hospital? Medieval western societies which shared the same religious economic and social

1 This introduction chapter does not attempt to provide a full literature review for hospital history, given that most researchers now find tailored literature searches more helpful.

2 Guenter Risse and John Harley Warner, 'Reconstructing Clinical Activities: Patient Records in Medical History', *Social History of Medicine* 5/2 (1992), 204.

frameworks developed similar practices of poor relief and health care. Linked to the spread of Christianity, the hospitals – founded by the church, royal patronage or lay people – were the most important institutional expression of piety and social commitment to the more fragile and helpless, particularly in urban contexts.[3] There were numerous *hospitals* in medieval Europe: an estimated 1,103 just in England and Scotland.[4] They are as difficult to define as they are to count. The term 'hospital' could cover diverse institutions such as hospices and foundling houses. Except for the residents of leprosaria, hospitals housed an eclectic mix of *patients*, including pilgrims, travellers, poor, elderly, orphans, sick and prostitutes. A minority of hospitals welcomed pregnant women or new mothers. Most were small places, often ordinary houses with two or three allocated bedrooms, one of them for the nurse. Few of them were close to the contemporary concept of a hospital. A common unifying feature was religion: expressed through monastic architecture in the larger hospitals, and everywhere through the moral obligations of the users to pray for the souls of the founders and benefactors. In the medieval hospital charity had strong contractual and utilitarian characteristics.

Only larger hospitals had access to health professionals and medication – and participated in the development of medical training and new methods of treatment and healing. The Hospital of St Bartholomew, London, the Hotel-Dieu de Paris, the Holy Spirit Hospital in Rome and the Hospital of Santa Maria Nuova in Florence are among the most important medieval *medical* hospitals.[5] Medicalisation, in the sense of medical therapy, is a difficult concept to apply to the medieval period. Certainly there is

3 Cf. Brian Pullan, *Rich and poor in renaissance Venice: The social institutions of a Catholic state, to 1620* (Cambridge-Harvard: Harvard University Press, 1971), 42.

4 Cf. Martha Carlin, 'Medieval English Hospitals', in Lindsay Granshaw and Roy Porter (eds), *The Hospital in History* (London: Routledge, 1989), 21.

5 Cf. Silvia de Renzi, '"A fountain for the thirsty" and a bank for the Pope: Charity, conflicts, and medical careers at the Hospital of Santo Spirito in seventeenth-century Rome', in Ole Peter Grell, Andrew Cunningham, Jon Arrizabalaga (eds), *Health Care and Poor Relief in Counter-Reformation Europe* (London: Routledge, 1999), 104–105.

evidence from the thirteenth century regulations of hospitals such as St John the Baptist in Bridgwater, England that hospitals were beginning to exclude those considered contagious or incurable.[6] Lepers were already segregated – one of the earliest organised solutions for the protection of the public health – and during epidemic crises such as the Black Death exclusion policies were more rigorously enforced by hospitals. One thing that united most of these medieval hospitals, however, was their central role in the provision of community health and poor relief resource, and of course spiritual support.[7]

Yet when particular aspects of hospital life are considered, some clear similarities and continuities are evident in medieval and modern hospitals. One of the most useful comparative themes is routine. There are a number of phrases historically associated with this concept. The words 'regimen' and 'regime' are derived from the Latin *regere*: 'to rule'. It can be interpreted as 'a systematic way of life' or 'system of administration'. In hospital settings both words usually implied a more forceful directive – a set of rules by which patients must abide. Christopher Bonfield's essay on the English medieval institutions uses the concept of regimes to raise the bigger problematic of what exactly is a hospital. His case studies expose dietary and hygiene regimes which are still apparent in the twentieth century hospitals discussed by Sally Sheard, but their 'purpose' cannot be read easily. The use of weekly meal rituals (fish on Friday) may have had some therapeutic as well as spiritual intent, but there is no evidence that this was their primary function. Despite the lack of archival evidence, Bonfield is able to construct some of the patterns of hospital life that enhance the work of other medieval hospital scholars. Regimes emerge as an early concern, which is picked up in a number of other chapters within this collection.

Fritz Dross' essay looks at German early modern hospitals from the perspective of annual routines, as exposed through account books. These

6 Cf. Miri Rubin, 'Development and Change in England Hospitals, 1100–1500', in Granshaw and Porter, *The Hospital in History*, *The Hospital in History*, 49.

7 Cf. Martin Dinges, 'Health Care and Poor Relief in Regional Southern France in the Counter-Reformation', in Grell, Cunningham and Arrizabalaga, *Health care and poor relief in Counter-Reformation Europe*, 240.

sources are frustrating to use, shifting as they do between different quantitative measures and with frequent omissions. Yet they share some similarities with Bonfield's sources in that they show these institutions as providing food and shelter, and very occasionally medical care, for small groups of long-term residents. The motivation of their founders and supporters was primarily religious – to help the progress of souls in the afterlife. Investment in such institutions can therefore be understood as the construction of a 'budget for the beyond'. Securing and maximising the income from these capital endowments was a primary duty of the hospital master. As Dross shows for the Duesseldorf hospital in 1542–1543, this was a well-established annual routine, which involved the master in lengthy negotiations to lease out agricultural estates and subsequent arrangement of the collection and sale of the crops. Through these ritualised interactions with municipal officials and tenants (which often involved the gift and consumption of large quantities of wine) we can see the early modern hospital as a key component in local economies, yet with virtually no indication of a medical function.

Sharon Strocchia's essay on the 'Incurabile' – institutions for syphilis patients in Renaissance Italy – also has a regime perspective In this case it was seasonal and daily in contrast to Bonfield's weekly dietary regimes. Strocchia discusses the process of preparing the guaiac treatment, which was made from a resin derived from the wood of the native American guaicacum tree. The seasonal arrival of the resin, and its daily preparation in large vats helped to define both the length of stay of patients, and their daily routines, as well as the seasonal and daily demands for nursing staff. This also structured the daily rounds of the physicians. Hospital life in a Renaissance hospital is revealed through these routines as a 'daily grind'. There was hard manual labour for the nurses. The preparation of the guaiac also illuminates the integration of different professional groups such as the physicians and pharmacists. The hospital begins to be shaped by its routines and a clear therapeutic purpose, if not yet an expectation of cure.

Another key unifying theme of this volume is the tension between theory and practice within hospitals. There is no guarantee that recorded regimes – rule books or nursing instructions – were actually enacted. Perhaps it is helpful to see them as ideals to be aimed for, but often tempered

in practice by mundane issues such as availability and costs of specific foods or medicines. Hospitals can be seen as sites of negotiation. Bonfield found evidence that his hospital residents 'ought' to have a certain allocation of fresh fruit each week, but this was not always possible within the limited medieval transport and market networks. This tension emerges more clearly in the differences between medical theory and practice. Strocchia's essay demonstrates that Renaissance Florence was an important site for the production of knowledge on successful treatments for syphilis (and we stress here that 'successful' must be understood as a relative concept). The nurses and physicians developed regimes that were subsequently adopted by other European hospitals that treated syphilis.

Responses to syphilis are a useful lens through which to see the development of early modern Europe, especially changes to the established religious and monarchical authorities who were faced with new problems from socio-economic change, population growth and urban development. Hospitals, through the nature of the social services they provided and their systems of governance, emerged as contested political territories. The established authority of the Catholic Church over hospitals was modified by the Council of Vienne (1311), which suggested greater lay control.[8] There followed a period of hospital governance reform in Europe. In France, in the thirteenth century, there were cases of religious authorities losing control of their hospitals for failing to uphold their religious mission.[9] In Aragon hospital reform by the monarchy began in 1401. In England there were crises in the mid-fifteenth century, along with notable examples in Florence and Milan.[10] At the same time in Portugal the monarchy chose

8 Cf. Jean Imbert, Michel Mollat, *Histoire des hôpitaux en France* (Toulouse: Privat, 1982), 72, 86.

9 Cf. Colin Jones, 'Perspectives on poor relief, health care and the Counter-Reformation in France', in Grell, Cunningham and Arrizabalaga, *Health Care and Poor Relief in Counter-Reformation Europe*, 219.

10 Cf. John Henderson, 'The hospitals of late-medieval and Renaissance Florence: a preliminary survey', in Granshaw and Porter, *The Hospital in History*, 63–92. Also, John Henderson, *The Renaissance Hospital, Healing the Body and healing the Soul* (New Haven-London: Yale University Press), 2006.

to employ Papal support to reform corrupt hospital administrators who were no longer fulfilling the requirements of holding masses for the souls of hospital founders or caring for the poor. The church's response to this show of secular interest in managing hospitals was an attempt to strengthen the bishops' authority, as agreed at the Council of Trent (1545–1563), which was strongly contested by the reforming monarchs. The systems that were created within many European countries in the fifteenth and sixteenth centuries thus reflect a development in relationships between hospitals and authorities.

The impact of changing authority in early modern European hospitals – between religious and secular bodies – can be seen clearly in the production of rules which determined methods of hospital administration, selection of patients and types of care offered. The Ca' Granda hospital of Milan, founded in 1453, was one of the earliest to formalise an administration guided by principles of profitability and rationality. The rules developed in Milan are similar to those used at the Santa Maria Nuova Hospital of Florence and also the Hospital de Todos os Santos, in Lisbon, in 1504. They all placed healthcare as the central purpose of the institution, and employed exclusion policies to select only those patients that were considered treatable. Within the hospital, patients with diseases such as syphilis were segregated for ease of treatment, not because of social stigma, and hospitals increasingly invested in new cure experiments.[11]

Jon Arrizabalaga's essay considers the tension between theory and practice in treating syphilis within Iberian Renaissance institutions, especially the Hospital de Todos os Santos [Real Hospital] in Lisbon. His approach is to concentrate on the activities of one Spanish surgeon – Ruy Díaz de Isla – who worked in a number of places in the Iberian peninsula in the late fifteenth and early sixteenth centuries. Arrizabalaga shows how this

11 Cf. Robert Jütte, 'Syphilis and confinement: hospitals in early modern Germany' in Norbert Finzsch, Robert Jütte (eds), *Institutions of Confinement: Hospitals, Asylums, and Prisons in Western Europe and North America 1500–1950* (New York: Cambridge University Press, 1996), 97–115; Jon Arrizabalaga, John Henderson and Roger French, *The Great Pox. The French disease in Renaissance Europe* (New Haven: Yale University Press, 1997).

itinerant medical practitioner transferred knowledge and skills between hospitals, especially from Seville where an outbreak of syphilis had been left to 'experimenters' to treat after the physicians admitted defeat. Díaz de Isla developed an 'evidence-based' treatment regime at Lisbon. This had to be negotiated within the strict medical professional jurisdictions, but became easier as hospital staffing and spatial regimes became more structured. Increasingly patients were allocated to wards according to their diagnoses, and those with diseases such as syphilis were removed from the main hospital building (and its wards) into a separate building under a separate nursing regime.

Laurinda Abreu's essay neatly complements that of Arrizabalaga, focusing on how hospitals were used to train health professionals in Portugal between 1500 and 1800, beginning with a discussion of the controversy of granting licences to practice to apprentice-trained practitioners, which brought conflict with the university-trained practitioners. She too follows the activities within Lisbon's Real Hospital, The formation of a school of surgery within the hospital in the sixteenth century exacerbated inter-professional problems, especially around the activities of unsupervised bleeders, and a new set of rules were drawn up in the seventeenth century. By the eighteenth century the problems begin to look like those of a modern hospital: keeping waiting times on arrival to under one hour, implementing timetables for meals and distribution of medicines. By this stage there were also tighter regulations for prospective students, and status issues between physicians and surgeons. The early modern Portuguese hospital emerges from Abreu's study as a site of constant conflict and tension, and it is no coincidence that the archives of rules and orders seem to tell us more about the practitioners than about the patients.

The care of the sick, however, was increasingly a primary function of European hospitals by the seventeenth century. In many cases this was in parallel to their ongoing role as places of refuge and care for the poor and the elderly. Many of the new institutions founded during this period also had a state origin rather than a religious one. Even in smaller communities with scarce economic resources, hospitals were desired as symbols of power and social importance. It was hoped, among other things, that they would facilitate settlement growth. This desire for amalgamating small

hospitals to provide provincial ones, to respond to increased demands, was behind the period of expansion seen in countries such as France, Sweden, Finland, Denmark and England.[12] It was not a peaceful process, and was only possible through authoritarian intervention of central powers, capable of imposing their orientations over to the resistance of local elites.[13] However, this was not the experience in Portugal where, after the sixteenth century reforms, the Crown more or less abandoned hospitals until the mid-eighteenth century.

Elisabeth Belmas' essay looks at the creation of one of the greatest and most iconic of French hospitals: the Hôtel Royal des Invalides which was founded in Paris in 1670 by Louis XIV for invalid soldiers. This was one of the earliest royal initiatives in the provision of health care, and provided a permanent medical staff who worked within a well-structured and disciplined environment. Belmas presents this hospital as an eighteenth century 'laboratory'. There are strong parallels with innovations occurring in other European hospitals, such as the segregation of patients according to their medical conditions and the establishment of a hospital staffing 'team' of a physician, surgeon and dispenser. Nursing care and hospital administration was however still seen as the remit of nuns – in this case the Filles de la Charité – who imposed strict daily routines that complemented the ward rounds of the medical staff. The wards were designed to make caring for the sick as efficient as possible, with parallel service corridors which were used to access the lavatory cubicles spaced between each pair of beds.

12 Cf. D. Hickey, *Local hospitals in Ancien Régime France: rationalization, resistance, renewal, 1530–1789* (Montréal: McGill – Queen's University Press, 1997); E.I. Kouri, 'Health care and poor relief in Sweden and Finland: c. 1500–1700', in Ole Peter Grell and Andrew Cunningham (eds), *Health Care and Poor Relief in Protestant Europe, 1500–1700* (London: Routledge, 1997), 167–203; E. Ladewig Petersen, 'The wrath of God: Christian IV and poor relief in the wake of the Danish intervention in the Thirty Years' War', in Grell and Cunningham, *Health Care and Poor Relief in Protestant Europe*, 147–166; Craig Rose, 'The gift relation: Politics and the London Royal Hospitals, 1683–92', in Granshaw and Porter, *The Hospital in History*, 1–17.

13 This was an authoritarian power but not an absolutist power. On this historiographical controversy, see Tim McHugh, *Hospital Politics in Seventeenth-Century France: The Crown, Urban Elites and the Poor* (Aldershot and Burlington, 2007), 2–3.

This promoted good hygiene, the impact of which can be seen in the lack of outbreaks of infectious diseases within the hospital, despite the high numbers of patients. During the eighteenth century the pressure on the hospital to take non-military patients increased, and the revised regulations demonstrate that keeping order was becoming more problematical. Strict visiting hours had to be imposed, and patients were required to be properly clerked into the hospital, to wear hospital clothing and to leave as soon as they were cured. The archives for the Hôtel Royal des Invalides, as used by Belmas for this essay, provide a useful corrective to the seminal article by Waddington on the role of the hospital in the development of modern medicine, and suggest that the shift in the balance of power in the doctor-patient relationship perhaps can be placed earlier in the eighteenth century than he suggests.[14]

As Belmas' essay shows, hospitals were not static institutions, but continually changed in response to demand, scientific knowledge and medical practice. This is also reflected in Anne Løkke's essay, which focuses on the Royal Lying-in Hospital in Copenhagen in the late eighteenth century, which had a remarkable social mix of patients – 95 per cent were poor, unmarried women, and the remainder were respectable, paying women, some of whom came from the nobility. They were attracted to the hospital by the reputation of its obstetrician, Matthias Saxtorph, who also attended royal births, and by its reputation as a relatively healthy environment. The women were strictly segregated within the hospital according to the fees they paid. The highest daily fee gained them a luxurious home-like apartment and the individual attention of Saxtorph and the chief midwife. The women who were admitted for free were looked after by trainee doctors and midwives, on public wards. Saxtorph managed to maintain low levels of puerperal fever in the Copenhagen Lying-in Hospital (well before Semmelwiess was able to demonstrate how this infectious disease was transferred within the Vienna hospital) by insisting on a quarantine system that kept the paying women completely separate and out of the hand

14 Ivan Waddington, 'The role of the hospital in the development of modern medicine: a sociological analysis', *Sociology* 7/2 (1973), 211–224.

of the trainees. If a fever case did appear in the free wards, the woman was immediately discharged, and the ward was 'deep cleaned', with the mattresses and bedding being replaced. Løkke thus shows us a relatively sophisticated system of hospital management (for the late eighteenth century) in which risks were carefully assessed but also one in which the image of the hospital was manipulated to ensure the hospital's long-term viability.

Part of the appeal of the Copenhagen Lying-in Hospital to the aristocratic pregnant woman was its comfort. This was a clear part of its marketing strategy – especially the provision of individual suites of rooms and gourmet food. However, it was still an institutional experience, and no amount of fine furnishings could disguise the basic intrusion into personal space, and a conflict with what Nobert Elias has called the civilising process of privacy. Hospital patients had begun to see privacy as an issue in Enlightenment Vienna.[15] This tension between the public and the private, and between the institutional and the domestic, is a central theme in John Chircop's paper. He analyses the operation of two lunatic asylums of the mid-nineteenth century – one on Malta and the other on Corfu – both then part of the British Empire. Their public institutions were therefore subject to British regulations. These were, however, clearly tempered by local culture and social norms. Whereas public asylums in Britain had very restricted visiting arrangements and draconian regimes, these Mediterranean institutions were more 'permeable', as Chircop puts it. They encouraged the families of patients to visit often, sometimes daily, bringing food and providing company and some supervision. The relationship with the families was critical: at times of overcrowding in the Maltese asylum they might be asked to temporarily take the less vulnerable patients home until inmate numbers reduced. This is but one example of the continuous negotiation that kept these institutions functioning, along with their flexible management and informal social arrangements. Yet there was also order to the regimes within these asylums: they had specified times for meals, and the staff

15 John Henderson, Peregrine Horden and Alessandro Pastore, 'Introduction' in John Henderson, Peregrine Horden and Alessandro Pastore (eds), *The Impact of Hospitals 300–2000* (Bern: Peter Lang AG, 2007), 18.

attempted to create a sense of 'normality' – of time passing and progress towards recovery and discharge. As overcrowding increased in the 1850s, the authorities were forced to construct a purpose-built asylum for Malta. The favoured panoptican design initiated a closer adherence to the British regulations for how lunatics should be treated, and a strengthening of the colonial perception of them as 'childlike' and in need of social discipline to restore 'moral cleanliness'. The 'less permeable' walls of the new asylum hindered the continual negotiations between families and authorities that had made the earlier asylum so successful.

Sue Hawkins and Andrea Tanner approach the issue of hospital rules and routines from the perspective of who they were intended to benefit. Their study of three nineteenth century British paediatric hospitals (Great Ormond Street and the Evelina in London, and the Royal Hospital for Sick Children in Glasgow) illustrates that these hospitals had to adopt clear policies and admission rules if they were to acquire sufficient charitable funding. There was a clear tension between appealing to parents to bring their children by presenting a caring and compassionate face, and appealing to benefactors who wished to see strict daily regimes designed to instil a civilising process on these working class children for example through standardising eating manners and levels of personal hygiene. The rules for staff were as detailed and restrictive as those for patients, yet Hawkins and Tanner show how these were regularly flouted by doctors, especially on ban on admitting children under the age of two and those with incurable or chronic conditions. As with John Chircop's nineteenth century lunatic asylums, the intense pressures of too many patients meant that rules were often bent or not enforced. There was a constant emphasis in the activities of these hospitals on fundraising and ensuring a favourable image through good news stories in newspapers – a theme that also resonates with Anne Løkke's findings for the Copenhagen Lying-in Hospital. There were different sets of rules too – visiting hours for relatives were strictly limited and enforced; while benefactors were free to visit at their convenience.

The commercial imperatives of hospitals, as seen in the British children's hospitals, is also a strong theme within Stephen Kenny's essay on the slave hospitals of the American south in the mid-nineteenth century. He discusses three different types of slave hospitals – the urban, the plantation and the medical college – to show how they produced racialised diagnoses

and treatments. They clearly perpetuated ideas of black racial inferiority, especially through the education of white medical students in the colleges, which made extensive use of black slave patients for surgical demonstrations and of their dead bodies for autopsy classes. The medical treatment of slave patients in all types of slave hospital was but another form of exploitation. Kenny discusses how some of these institutions specialised in obstetrics and gynaecology – reflecting the added 'productivity' value of female slaves. The intense interest in such specific slave health issues did not however, extend to their general welfare. Even when in hospitals, the subordination of slaves' lives and well-being to the interests of doctors, slave owners and medical students was paramount, and they were expected to conform to detailed bye-laws and exhibit 'good behaviour'. Although other chapters in this volume have touched on the issue of patient subordination – as for example in Hawkins and Tanner's study of children's hospitals, or Chircop's study of lunatic asylums – Kenny's American slave hospitals appear at the furthest end of the spectrum. Yet despite these differences, the slave hospitals shared some similarities with European hospitals of the nineteenth century. They too were busy medical spaces, the site of interactions between physicians and patients (and slave owners), and they also were shaped by the Parisian clinical school model. Patients were organised and processed in an orderly and systematic manner. They were positioned within the hospitals according to their diagnoses and were the focus of structured research activity. Case studies were written up for journals, which helped to disseminate racialised medicine throughout the USA. Yet these experiences were rarely articulated by the black slave patients themselves: we can only approach the slave patient perspective through looking at the rules and routines to which they had to conform.

The last two chapters in this volume focus on twentieth century hospital life. Together they illustrate a very different organism, which has strong similarities to the assembly line of factories. The industrialisation of hospital medicine was retarded in comparison to the adoption of this mode of production in other areas of twentieth century life. How much of this is explained by the fact that hospitals produced services rather than products is difficult to say. However both David Theodore and Sally Sheard's chapters show how nursing processes and patient experiences became 'standardised', often in search of the same elusive goals of efficiency and effectiveness.

They also illuminate hospitals as sites of resistance – in which tradition and culture could be significant barriers to change. Theodore's comment that 'sometimes hospital life can change dramatically while the architectural form stays constant, and sometimes the inverse is true' is resonant for both of these wide-ranging chapters that look at the transformation of American and British hospitals in an era when hospital-based health care came to be seen as a universal human right.

Theodore uses architectural sources, especially the plans of hospital designers, to construct an alternative history in which hospital nursing emerges as a more complicated trajectory than is usually presented. The introduction of Taylorism and scientific management to hospitals in the post Second World War period – and especially the use of computers for patient notes, laboratory tests and ordering medicines – transformed the role of the nurse. Likewise, he shows how time and motion studies of nurses helped to shape the design of wards in new hospitals. There was a clear break with the nineteenth century Nightingale pavilion style in favour of small 8 bed units that offered more patient privacy, but often increased the distance that nurses had to walk. The new designs resulted from commissioned studies such as those by the British Nuffield Provincial Hospitals Trust. Nurses were filmed carrying out key duties such as changing beds and administering medicines. The researchers were keen to use the 'fattest possible nurses' in their studies to make sure that there would be adequate space between the beds. This acknowledgement that nurses were not a standard shape or size marked a significant departure from the ethos of pre-war scientific management. Instead, cybernetics dealt with the statistical possibilities for a whole set of outcomes rather than a concern for generating a standardised form. However, there were concerns that the new operations research methodologies would not be able to measure the traditional values of nursing such as care-giving. The 'professionalisation' of nursing, which improved nurses working lives, also risked transforming them into 'assembly-line' type workers in the pursuit of efficiency and effectiveness. Nurses were undoubtedly now part of the bigger machine: the *machine à guérir* (the 'curing machine'). But where did patients fit within this twentieth century creation?

One of the individuals discussed by Theodore is the hospital designer Gordon Friesen, who expressed concern in the 1950s that automated hospitals risked turning people into machine-processed objects. Friesen advocated that 'The design "team" must insure that the *services*, but not the patient, are on the assembly line'.[16] Ironically, as Sally Sheard shows in her essay, less than a decade later, the British health economist T.E. Chester was advocating using patients as 'tracers' within the hospital to identify where there were systematic weaknesses: making an overt analogy to a car factory and its production line. Sheard's essay is concerned with the process of post-surgical recovery – traditionally called convalescence – although this term (and the practice) is no longer in fashion. She explores various factors that have contributed to a medicalisation of convalescence, and pressures to make the process more efficient and 'faster'. The medical profession, in both Europe and America, albeit not always in synchronisation, moved to make it a more active experience in two senses: introducing early ambulation after surgery, and using exercises and dietary supplements to reduce the length of hospital stays. The medical literature on both sides of the Atlantic shows distinct peaks and troughs on this topic, linked to biomedical research stimulated by war-time needs and the pressures of economic recessions.

Despite an increasing understanding of the physiological and psychological markers of convalescence, which showed that it was a 'real' process, it became a marginalised activity in Britain, partly because the majority of private convalescent hospitals were not incorporated within the new National Health Service in 1948. During the second half of the twentieth century hospitals aimed at shorter lengths of stay, aided by more sophisticated data collection such as the Hospital Activity Analysis of the 1980s. By the end of the twentieth century, in-patient hospital stays in both Europe and the USA now appeared to be driven as much by economic imperatives as by medical authority.

16 Gordon Friesen, 'Automation in Hospital Design', *Architectural Design* (January 1961), 9; emphasis in the original.

'Efficiency' and 'effectiveness' are terms most usually associated with twentieth century 'modern' hospitals. They are central to Sheard's analysis of convalescence and length of hospital stay, and to Theodore's exploration of changes in hospital designs and nursing routines. Yet they are also applicable to earlier periods of hospital history, as shown by Belmas and Løkke. Even Abreu and Arrizabalaga note the custom in Spanish and Portuguese early modern hospitals of grouping patients in wards according to their diagnoses, which must have been prompted more by efficiency of treatment regimes (such as for the tricky application of guaiac for syphilis) than for the educational benefit of medical students. They illustrate the challenges of defining clear periods in hospital history.

This volume is not primarily concerned with defining hospitals by their patient types, funding mechanisms or even their broad purpose.[17] Hospital historiography in many countries has been dominated by a quantitative approach, which can exploit long-run data series on patient admissions, but cannot grasp the lived reality, and how these institutions formed part of wider networks of care. Instead it looks for similarities and differences in hospital life, and especially of how theories are shaped by practical needs. What emerges from this volume is a clearer understanding of how *fluid* hospital life can be – constant change in response to various influences. Some of this change is planned, deliberate. Belmas echoes Colin Jones in seeing large state-funded military hospitals as laboratories for medical experimentation.[18] Likewise, Kenny shows how the small, private American slave hospitals adapted to changing demands for slave health, and Hawkins and Tanner illustrate that British paediatric hospitals consciously manipulated their admission rules in response to the concerns of their benefactors.

All countries are united in their experience of growing demand for hospital treatment from the mid-nineteenth century, and a widening of patient types away from the 'deserving poor', and those other marginal groups that

17 For discussion of this aspect see Guenter B. Risse, 'Before the Clinic Was "Born": Methodological Perspectives in Hospital History', in Finzsch and Jütte, *Institutions of Confinement*, 75–6.

18 Colin Jones, 'The Construction of the Patient in Early Modern France', in Finzsch and Jütte, *Institutions of Confinement*, 68.

were such a key component of the medieval and early-modern hospitals.[19] In England and Wales there was a fourfold increase in the number of hospital beds between 1861 and 1938.[20] But although developed countries still spend the majority of their health care budgets on secondary (hospital) care, the physical space devoted to hospitals has changed considerably in the last forty years. New hospital designs expect patients to stay a very short time – sometimes often less than a day, even for surgery. Not only are beds less a feature of the modern hospital, but hospitals are less often a feature of the urban landscape. In England and Wales 187 hospitals were closed between 1982 and 1988 (10 per cent of the total), and available beds cut by 29 per cent.[21] It is no surprise that these reforms to the hospital sector followed one of the worst economic recessions of recent times, and coincided with discontent among hospital staff. British nurses held their first ever strike in 1987, and hospital doctors have several times threatened to work to contract. There have been numerous scandals, not just in British hospitals, about working practices and treatment of patients. We have seen a resurgence of hospital acquired infections that would have been familiar to Saxtorph and Semmelweiss, and have had to revisit Nightingale's lessons on hospital hygiene and the importance of restricting visitors to maintain a healthy environment.

Hospital management has passed from the hands of clergy and governors, briefly into a period of medical control in the twentieth century, before the arrival of the professional (and usually non-medical) hospital manager of the late twentieth century. This has been driven not by changes

19 There is a vast literature on pre-modern patient types. See for example Jean-Pierre Gutton, *La société et les pauvres en europe (XVIe–XVIIIe siècles)* (Paris: Presses Universitaires de France, 1974); Pedro Carasa Soto, *Pauperismo y revolución burguesa (Burgos, 1750–1900)* (Valladolid: Universidad de Valladolid, Secretariado de Publicaciones, 1987); Colin Jones, *The charitable imperative: hospitals and nursing in ancien régime and revolutionary France* (London-New York: Routledge, 1989).

20 Hilary Marland, 'The Changing Role of the Hospital, 1800–1939', in D. Brunton (ed.), *Medicine Transformed: Health Disease and Society in Europe 1800–1930* (Manchester: Manchester University Press, 2004), 239.

21 Brian Abel-Smith, *Cost containment and new priorities in health care: a study of the European Community* (Aldershot: Avebury, 1992), 107.

in medical knowledge but by medical economics – a return to management by balance sheets. Bonfield and Dross' chapters illustrated that balancing income and expenditure was one of the main concerns for medieval and early modern hospitals. Concerns about costs have never been far from the consciousness of hospital managers, but as hospital care came to be seen as a right, the pressure put on supply could not be managed simply by restricting demand. By the 1970s escalating hospital costs facilitated a return to non-medical hospital management, and developed countries looked to management consultancy firms for advice. Parallel to shifting some of the cost of hospital care from the state to the individual has been the sophistication of internal hospital management practices, made possible by the arrival of computer technologies. This enabled evaluations of the quality as well as the quantity of medical care being delivered, and further systematised another aspect of hospital life. Avedis Donabedian's seminal paper in *Milbank Memorial Fund Quarterly* in 1966 marks the consolidation of these new concerns.[22] His model proposed a three category analysis of 'structure', 'process' and 'outcomes'. Such overt analysis of what went on inside hospitals enabled the creation of Diagnostic-Related Groups [DRGs], which allowed specific medical treatments to be more accurately costed, and then those costs passed on to external funders. Progressive Patient Care was developed in response to increasing pressures on American hospitals, which was touted as being able to 'place the right patient in the right bed to receive the right treatment for the right length of time'.[23] New data sources also allowed the development in the 1980s in the USA of Medicare's Prospective Payment System [PPS], which has transformed the way in which hospitals managed patient hospital stays.

These chapters – as disparate as they are – help to further consolidate the successful case-study approach to hospital history, as recognised by the editors of the first volume of collected chapters produced by the

22 Avedis Donabedian, 'Evaluating the Quality of Medical Care', *Milbank Memorial Fund Quarterly* 4 (1966), 166–206.

23 John Thompson and Grace Goldin, *The Hospital: A Social and Architectural History* (New Haven Conn.: Yale University Press, 1975), 314.

International Network for the History of Hospitals in 2007. This was the most ambitious set of chapters since the 1989 volume edited by Lindsay Granshaw and Roy Porter.[24] Henderson, Horden and Pastore caution against the assumption that true hospitals are medicalised and require the presence of medical staff, and that there has been 'a great "before" and "after" in hospital history; some pivotal period in which charity gives way to medicine, care to cure, stigma to pride, the mortuary to the recovery room, the poor to the middle classes'. Their explanation for this style of history lies with the allegiances of their authors, who have 'tended to exaggerate the difference of "before" and "after", as if they are always engaged in dragging their particular hospitals from medieval darkness into modern light'.[25]

The chapters in this volume build on the recent historiographical revolution in medical history – the move from a preoccupation with doctors and treatments, to a more nuanced analysis of hospitals within their social, economic and cultural environments. The chapters here emphasise the importance of external events – price fluctuations, harvest failures, wars, epidemics, popular uprisings – which in turn increased demand for hospital care of all types: shelter and food for the poor, treatment for the diseased. The impact of such events is manifest in the ability of hospitals to bend their rules, and to respond to changes in emerging urban communities by collaborating with other agencies.[26] This interactive, situational approach to hospital history mirrors the emergence and application of general systems theory to contemporary hospitals, based on the biological analogy, to explain the *behaviour* of hospitals. They must interact with their environments to secure the resources necessary for survival, adaptation and

24 Granshaw and Porter, *The Hospital in History*.

25 John Henderson, Peregrine Horden and Alessandro Pastore, 'Introduction' in Henderson, Horden and Pastore, *The Impact of Hospitals 300–2000*, 32–3.

26 Cf. Marina Garbellotti, 'Assets of the Poor, Assets if the City: The Management of Hospital Resources in Verona between the Sixteenth and Eighteenth Centuries', in Henderson, Horden and Pastore, *The Impact of Hospitals, 300–2000*, 118–119. Although it is recognised that women were the main beneficiaries of early-modern out-door poor relief, and for that reason they were less likely to enter hospitals, there are no studies as yet that look at the dynamics of this gender-based care.