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Piers D. Mitchell

Excerpt

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Introduction

The crusades could be said to be the most fascinating events of the medieval world. The mass migration in sequential waves of tens of thousands of people from Europe to the eastern Mediterranean for such a disparate number of reasons created a complex and unique society. The armies were not just composed of trained soldiers but ranged from the nobility to paupers, clergy to criminals, businessmen to con artists.¹ For the many crusaders who might never even have ventured beyond the next village prior to their expedition the journey itself was a major challenge.² The overland and sea journeys could lead to malnutrition, frostbite, drowning and the potential for the spread of communicable conditions from fleas to tuberculosis. An individual with a culture and an immune system developed for cooler northern Europe might have been at considerable risk migrating to the Middle East. First, he would encounter new diseases to which he might have little immunity, such as the parasites dracunculiasis and schistosomiasis.³ Moreover, a culture developed for a different region would have increased a crusader's risk of succumbing to conditions resulting from the different climate, such as heat stroke or food poisoning.

Soldiers involved in a long siege would have faced yet more dangers. While we would expect the risk of death or wounding from weapon injuries, the mere fact that siege conditions necessitated staying in the same place for so long significantly increased the risk of ill health from other causes. Dysentery was well described in the chronicles⁴ and we would expect such gastrointestinal diseases to have resulted from contamination of drinking water supplies with human latrine waste. Fevers and epidemics were often mentioned by those recounting life in army encampments.⁵ In many cases we will never know exactly which infections occurred in any particular

¹ Setton 1955–89; Mayer 1988; Riley-Smith 1991; Riley-Smith 1999a. ² Hamilton 1999.

³ Adamson 1976; Adamson 1988. ⁴ John of Joinville 1874 p. 6; John of Joinville 1955 p. 24.

⁵ John of Joinville 1874 p. 164; John of Joinville 1955 p. 99; Richard de Templo 1864 p. 124; Richard de Templo 1997 p. 126.

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epidemic, but there a number of possibilities. Malarial parasites have been found in Egyptian mummies⁶ and this confirms their presence in the region well before the time of the crusades. Some Frankish written sources mention whether a fever was periodic in nature⁷ and the time period at which the fever returns in malaria (quartan/tertian) is a classic sign of the disease. If an army was encamped close to marshes for a long period of time, we might expect a significant proportion of the troops to have been bitten by mosquitoes and run the risk of contracting malaria. Trachoma, also known in the past as ophthalmia, is an infection of the eyes which is spread by flies. It may have a protracted and chronic course which can end in blindness. Trachoma is also believed to have been present in the eastern Mediterranean well before the crusades and was probably endemic in ancient Egyptian times.⁸ This disease was still debilitating in more recent military expeditions to the Levant in the nineteenth and twentieth centuries.⁹ It is yet another condition that we would expect to have become endemic both in the soldiers who made up the crusading armies and also the settlers who decided to stay in the east after the military campaign came to a close. Scurvy is the nutritional deficiency that results from insufficient intake of vitamin C in the diet. While the loss of teeth is perhaps the best-known consequence in severe cases, an individual may die from spontaneous bleeding if the deficiency continues for long enough. Scurvy is clearly described in the troops of a number of Frankish sieges.¹⁰ In a medieval army it must have been very difficult to maintain personal hygiene, eat an adequate diet or live a lifestyle that would have minimised the risk of contracting any one of the wide range of diseases that existed. In consequence thousands appear to have died from such diseases in the Latin East.

The First Crusade set out for Jerusalem in 1096 and the invaders established the kingdom of Jerusalem in the south, the county of Tripoli in the centre, with the principality of Antioch and county of Edessa in the north. The island of Cyprus was added to these Frankish states during the Third Crusade in 1189–92 (Figure 1). While the king was based in the city of Jerusalem in the twelfth century, after the loss of Frankish territory following the battle of Hattin in 1187 the monarchy moved to the coastal city of Acre. Nearly two hundred years after the initial conquest, the loss of Acre in 1291 effectively signalled the end of the mainland Frankish states, although Cyprus remained in Frankish hands. The scramble of individuals, military groups and religious organisations for land, power and royal

⁶ Miller *et al.* 1994. ⁷ *Assises de Jérusalem* 1843, 1, pp. 167–9.

⁸ Feigenbaum 1957; Meyerhof 1936. ⁹ Vetch 1807; MacCallan 1913 p. 2; Cornand 1979.

¹⁰ Ambroise 1897 p. 114; Ambroise 1939 p. 65; John of Joinville 1874 p. 166; John of Joinville 1955 p. 100.

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Figure 1. Map of the Frankish states in the Latin East

This map shows the important towns mentioned in the text. However, the borders changed over time, so that the area covered by the Frankish states at any one instant would not have been identical to that shown in this map.

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favour with each conquest or defeat has made this period an intriguing one for the modern historian. The interaction between the crusaders and the local Christians, Jews and Muslims who lived under Frankish rule, and also relations with the neighbouring Christian territories of Armenia and Byzantium to the north and Muslim territory to the north-east, east and south of the Frankish states made the situation even more complex. Needless to say, this collision of cultures would be expected to have profound implications for diseases of all kinds as well as the efforts made by medical practitioners to treat their patients.

Medicine and disease in the crusades are topics that have interested historians for many years, as the number of articles written on the subject clearly demonstrates.¹¹ This interest appears to be increasing, as the last decade has seen more than twice as many articles published on this topic as the entire total produced prior to 1990. The work of Susan Edgington, Benjamin Kedar, Tony Luttrell and others has brought refreshing insight to particular aspects of crusader and Frankish medicine. Unlike the study of more recent medical advances, research into crusader medicine utilises archaeology and palaeopathology, cartography and manuscripts written in the many different languages of both the crusaders and those already living in the eastern Mediterranean. To do this topic justice would require an author proficient in medieval Latin, Greek, Arabic, Armenian, Persian and Syriac as well as the various vernacular languages of France, Italy, England, Germany and Spain. I have yet to meet an individual with such archaeological, medical and linguistic talents and probably never will. However, despite these limitations the evidence accumulated for this work is so large that only certain aspects of the medical history of the Latin East can be covered in this volume. I have chosen to concentrate on weapon injuries and their treatment since the battlefield is usually the first image that springs to mind when the crusades are considered. It was the *cirurgicus*, the medieval surgeon, who would have treated such wounds. His practice included what in modern times is called military medicine. Associated topics that complement this core theme are also investigated, including injuries resulting from torture, the evidence for medical practitioners, hospitals, elective surgery, medical legislation and the exchange of medical knowledge between cultural groups thrown together by the crusades. Other equally fascinating areas such as malnutrition, epidemic disease, parasites, psychiatric illness, the crusaders' attitudes to disease, the role of religion and miracles in healing, the spread of disease with the crusades and the macabre methods

¹¹ Walsh 1919; Ell 1996; Ficarra 1996; Dolev 1996.

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employed to transport the physical remains of the deceased back home are to be covered in a future work.

The subject area covered by the word 'surgery' in the medieval period is much larger than in modern times. With the exception of those suffering from a few notable diseases, it is usual for a modern surgeon to take on the care of a patient only when an operation is likely to be required. The medical treatment of a patient with drugs and other non-operative techniques is normally managed by physicians. At the time of the crusades, surgery covered all those diseases which might at some point need an operation as well as those conditions that were visible at the surface of the body.¹² That meant that the surgeon would still be required to be competent in the use of other treatments of the time such as dietary modification, drugs, blood-letting and bathing.¹³ This explains the wide variety of conditions covered in the surgical texts of the twelfth to fourteenth centuries. From a modern surgical viewpoint we would expect to find sections on the treatment of weapon injuries, fractures, abscesses, bladder stones, haemorrhoids and anal fistulae. However, also included in the typical medieval *cirurgia* would be a range of skin diseases such as leprosy, ascites (dropsy) and venereal diseases¹⁴ which would normally be managed by modern physicians. For this study I have concentrated on the actual application of surgical techniques to illustrate the role of surgery in the crusades, rather than discussing all the evidence for the treatment of any disease found in the surgical texts of the time.

The sources that provide evidence for this project can broadly be divided into written texts and archaeological excavation. A large number of chronicles were written describing events during the crusades¹⁵ and over forty have provided evidence for this study. Some were written by soldiers or clerics who participated in a particular crusade and recorded their journey, so that on their return they could tell those from their home town or monastery what the experience was really like. They often saw events from the perspective of their particular subgroup in the crusade, such as those from a particular region of Europe or those in the entourage of a certain noble. In consequence their version of events would tend to favour members of their own group and such accounts are prone to discrediting or gossiping about the activities of other sections of the army. This is especially the case when old rivalries already existed between the groups back in Europe. Many pilgrims travelling in peacetime also wrote of the route they took and

¹² Talbot 1967 pp. 88–124; McVaugh 1998b. ¹³ Siraisi 1981 pp. 109–10; Hunt 1990.

¹⁴ Theodorich Borgognoni 1498; Theodorich Borgognoni 1955–60. ¹⁵ France and Zajac 1998.

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noted the highlights along the way. While some were secular, a significant proportion of these accounts were written by clerics for the use of other clerics. However, despite being eye witnesses they were just as prone to memory lapses as any of us, and were sometimes fed incorrect information by ignorant guides.

Others who had never been to the Latin East used the oral testimony or written works of these eye witnesses to write works themselves, and these 'secondhand' chronicles have to be interpreted with appropriate caution. A number copied their battle scenes from classical works such as the *Aeneid* and consequently fabricated a great story – but one that is of limited use to the modern medical historian. There is evidence from Graeco-Roman times that such epics with a recreational as well as historical function often included fabricated examples of battle scenes to make the story more exciting¹⁶ and it is possible that the same technique was used in the medieval period too. However, if such invented episodes were included then we would expect them to be at least plausible to the medieval listener and so still give some kind of a guide to contemporary medical practice where this is mentioned. Clearly the need to fabricate would have been much less likely in works by eye witnesses to events and in those accounts describing the experiences of well-known individuals to whom the author would have had access, in contrast to others who wrote of the crusades from a different place and time. However, cross-referencing with other chronicles may demonstrate that vivid and original descriptions in some chronicles written by those who stayed in Europe were probably based on the verbal eye witness accounts of others, and consequently are still a valuable source of information.¹⁷ Even among the eye witness works there were plenty of sections copied from older sources.¹⁸ Sometimes this was because certain areas were too unsafe for pilgrims to travel through to allow a firsthand report, while other sources were copied as they were regarded as infallible.¹⁹

Of course, the key elements of historiography, those of evidence and narrative structure, were approached by medieval readers and writers with rather different expectations from our own. A major purpose of recording history was to expose the divine will working through mankind, and the crusades were a classic example of this. Furthermore, many authors fail to provide us with evidence of a systematic or thorough effort on their part to find ways to detect mistaken or biased information. The concepts of trustworthiness and accuracy of information were not sufficiently

¹⁶ Salazar 2000. ¹⁷ Edgington 1998a; Gilo of Paris 1997 pp. xiii–xxiv.

¹⁸ France 1998; Brefold 1994. ¹⁹ Wilkinson, Hill and Ryan 1988 pp. 2–3.

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distinguished, just as the difference between possibility and probability in the twelfth century was less marked than it is now. A number of issues recur in many medieval histories and chronicles. Where stories seem plausible to the author, but impossible or hard to corroborate, they were often included in the text. Authors were generally more tolerant of stories of miracles and wonders in foreign lands if they or their readers had never been there. Histories were often entertainment, and so needed to create imagery, not just record events. They were frequently written with a bias, such as for the cultural origins of the author, or to glorify a patron to whom a work was dedicated in order to advance the author's career. These texts may not have been written by someone with access to all the facts. A cleric acting as chaplain to a noble may have been ignorant of the activities of the foot-soldiers and other poor members of the crusade as he wrote, and perhaps have had to rely on court gossip. Many passages where the supposed words of individuals were written as a speech in these texts must be interpreted with great caution, as they were frequently made up by the author for literary effect. Those writing a history which covered many years, sometimes centuries, had to rely on the information in past texts. However, they nevertheless frequently embellished them with fabricated passages to improve readability, or allow reinterpretation of past history based on the issues of the day at the time of rewriting.²⁰ The medieval mindset was different from that of modern times, and we must view what was written then with this in mind.

Some Frankish settlers undertook histories of their own kingdom that often covered much longer time periods than the detailed, but short-term, coverage in the texts produced by the transient crusaders. The indigenous Christian communities that lived in areas covered by the Frankish states continued their own historical traditions and a few chronicles in Syriac and Armenian recorded life under the Latins. The Byzantines to the north were yet another source of texts, and they seemed to have a very complex relationship with the crusaders. They often intermarried and worked side by side with Frankish settlers in the early twelfth century, but at times fought against old enemies from Europe who also happened to have taken the cross. This animosity reached its peak with the Fourth Crusade that took Constantinople itself. The neighbouring Islamic states to the north, east and south of the Frankish states all contributed in the recording of historical events and some of this understandably addressed the interaction between themselves and these invaders from Europe, both when at war

²⁰ Partner 1977.

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and in peacetime. However, Arabic sources are heavily underrepresented as publications available for the use of those interested in the crusades. This is partly because relatively few such texts have been edited and published at all (compared with Latin sources), and even fewer have been translated from Arabic into other languages which would further improve their accessibility.²¹ Another possible reason is that the crusades were much less important to the Islamic world in the twelfth century than they were to Europe. The medieval Islamic world was so large that it seems that for most Muslim writers the crusades were no more than a remote frontier incident,²² unworthy of much literary effort.

Medieval Arabic historiography has been divided by some into three groups in order to understand it more easily.²³ The first class of writing is chronography, and includes works and histories that follow events as they occurred over time. Examples of this kind that are used in this book are works by Ibn al-Furat and Ibn al-Athir. The second form of writing is biography, works that relate to the life of one person. Examples I have used here include those by Usama ibn Munqidh and Ibn Shaddad. Biographies and autobiographies were written for a range of reasons, just as today. Some were created to redress criticism of the author's life, others were narratives of conversion to Islam, some were entertainment, others spiritual guides, some were histories for the author's descendants and others still were just about a colourful character in history.²⁴ Many are not true biography as we would understand the concept today, but are really self-narratives, life representations or memoirs. In consequence, they may not be about the author's life as such, but rather concentrate on external events that took place around him. The third type of writing is prosography, and includes texts such as biographical dictionaries concentrating on specific social groups. One example used here is by Ibn Abi Usaybi'a. Arabic biographical dictionaries were first written about judges, jurists, mystics and Qur'an reciters.²⁵ However, by the tenth century AD most classes of people were covered by such dictionaries, even those whose contribution to Islam was more secular, as was the case for medical practitioners. Medieval Arabic historians were on the periphery of the academic establishment, as it was lawyers who were regarded as being of greatest importance. Most authors were historians part time, generating most of their wealth and social status from other professions. *Adab* literature was one style of writing that became popular as it required a combination of skills, attitudes and knowledge that

²¹ Hillenbrand 1999 p. 9; Maalouf 1984; Atiya 1962 p. 2.²² Watt 1991 p. 81.²³ Robinson 2003, pp. 55–79.²⁴ Reynolds 2001 p. 89.²⁵ Auchterlonie 1987 p. 2.

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distinguished the author from a mere boorish ignoramus who chose to write. The function of the historian was to archive and entertain, but also to instruct and moralise. Historians attempted to teach rulers a lesson and to trigger their conscience, but they also legitimised ruling dynasties and reinforced traditional beliefs.²⁶ Consequently we must interpret medieval Arabic historical texts with this knowledge in mind.

One twelfth-century Islamic work has the potential to be extremely useful for its descriptions of medical practice in the Frankish kingdoms, but is also a classic example of the pitfalls of using any written source. Consequently it is worth briefly discussing this specific text. Usama ibn Munqidh claimed to have personally witnessed many battles and events in the era of the crusades, and he also claimed to be trained as a medical practitioner. His 'autobiography' is not an autobiography in the Western sense, where important or representative episodes are collected together to summarise the author's life. It instead belonged to the *adab* genre of Arabic literature, which aimed to instruct but also amuse and please its readers.²⁷ It was perfectly acceptable in this genre to stretch the truth to make a point and a number of the stories were probably stereotypes rather than actual incidents.²⁸ Consequently we are left in a dilemma. Do we take everything Usama wrote as truth, and know that we will be misled by some of his fictional stories? Do we discount everything he said and know that we are losing out on some fascinating events recorded by an eye witness? Do we try and differentiate the truth from the fiction, despite the fact that not even an *adab* expert would claim to get this right 100 per cent of the time? I am not an *adab* expert, nor an Islamic scholar. However, those who are do recognise the potential of using Usama, especially if we can see past the moral of each story and attempt to extract the more plausible information.²⁹

This has left a wide range of very different chronicles, all written from different perspectives and with different hidden agendas. Some were written in the Latin East by eye witnesses but others were transcribed at a great distance from the events taking place, by those who could only base their work on the tales of others. While many were contemporary, a number were written decades after the event and some of the facts may have become blurred in the witnesses' minds or become modified with the hindsight of knowing how events would later unfold. Some were written in a factual manner, while others were created as a good story for the listener. This heterogeneity among the sources allows integration of the views from each perspective to perhaps enable a more balanced opinion to be constructed. However,

²⁶ Robinson 2003 pp. 187–8.²⁷ Conrad 1999.²⁸ Irwin 1998.²⁹ Hillenbrand 1999 p. 262.

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the strengths and weaknesses of each source must also be considered before each sentence is accepted at face value.

As well as the chronicles, with their possibilities and pitfalls, there remains a wealth of other textual sources that contain relevant information. These include legal texts from the kingdom, letters written on campaign to relatives at home, the wills of those who were dying, the deeds of property sales in Frankish towns as well as the cartularies of military and religious orders. European sources include royal court records, papal bulls, academic medical texts and monastic histories of those countries that participated in the crusades. Clearly each of these has the potential to act as an indirect source of information with regard to crusader medical practice, although only a small proportion of each source will be relevant. The structured integration of information from such disparate sources is clearly fraught with difficulties but does greatly improve our knowledge of trauma and its medical treatment in the crusades.

Archaeological excavation has provided information both from the recovery of Frankish human skeletal remains and also of buildings and the bioarchaeological analysis of appropriate sites. Palaeopathological study of crusader cemeteries can provide clear proof for weapon injuries and many diseases that leave their mark on bone. The excavation of hospitals helps us to visualise the locations where written sources confirm that medical treatment took place. Study of pharmacy jars can show which medicines were in use, how they were traded around the Mediterranean and, if found in large numbers, may identify the location of an apothecary's shop. Medical equipment and surgical instruments also help us to visualise medical practice and confirm the use of particular medical treatments in the past. Bioarchaeological analysis of soil samples from Frankish sites provides evidence such as animal bone fragments, parasitic intestinal worm eggs, pollen and seeds. This kind of information can help us to understand what types of food were eaten, what medicines may have been used, and standards of hygiene. Frankish sites discussed include cities such as Acre, Caesarea, Jerusalem and Nablus, and also fortifications such as Belmont Castle, Le Petit G rin, Jacob's Ford, Paphos and the Red Tower.

This integration of the textual and archaeological evidence is employed here as much as possible, to draw conclusions that each specialism alone could not substantiate. I hope that the subsequent discussions will improve our modern understanding of how effectively the crusaders and Frankish settlers coped with the considerable challenges associated with life in the time of the crusades.