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#### CHAPTER 3

# Of Invisible Boundaries: Bodies, Plagues, and Healers

Claudia Stein

During 1728-9 the French aristocrat, jurist and *homme de lettres* Charles-Louis de Secondat, Baron de Montesquieu (1689–1755) travelled Europe. Nothing escaped the traveler's enlightened critical eye, and his observations filled several note books. These detailed notes would later serve Montesquieu in the composition of his most famous work, *The Spirits of Law* (1748), a legal-philosophical treatise that would inspire all modern constitutional theories. His visit to the imperial city of Augsburg, where he arrived on 16 August 1729 with a crippling cold, was important for Montequieu's political and legal reflections. The city's bi-confessional status within the political system of the Holy Roman Empire fascinated him. An early advocate of a separation of political power and an admirer of the federal organisation of the Empire which had offered imperial cities like Augsburg a considerable degree of independence, Montesquieu declared Augsburg' citizens the happiest subjects in the German-speaking lands. The strict religious parity in the city's administration, established after the Peace of Westphalia in 1648, which structured everything from the highest magistrate to the city's street cleaners, offered citizens a certain protection from political arbitrariness, he believed.

Although Montesquieu did not think that parity was the magic formula against all political injustice, he still considered it a superior system of political organization to that of his absolutist, centralised fatherland of France. What such a strict bi-confessional organisation meant for daily live in the city, though, he also learned towards the end of his stay. His cold had steadily worsened, and eventually Montesquieu felt the need to ask his Augsburg banker for a good physician. The banker recommended a 'catholic doctor'. Montesquieu, despite feeling rotten, could not deny himself a joke and asked for a good Turkish doctor instead. The banker, somewhat consternated by this request and oblivious to its irony, responded apologetically that unfortunately there was none available in town.

For visitors like Montesquieu, the banker's response highlighted some of the absurdities of bi-confessional city life. For Augsburg's citizens, however, the one's denomination was a dead serious matter; indeed it was the central ordering force in most of

<sup>&</sup>lt;sup>1</sup> Montesquieu, *Reisen*, pp. 11-35. For Montesquieu in Augsburg see also François, "Augsburger Freiheit und preußische Tyrannei".

<sup>&</sup>lt;sup>2</sup> For his visit to the city's tourist attractions see Montesquieu, *Reisen*, pp. 92-93.

<sup>&</sup>lt;sup>3</sup> Ibid., p. 95.

<sup>&</sup>lt;sup>4</sup> Cf. ibid., p. 94.

their life decisions. It is therefore not surprising that the city's health care system was also structured around what Etienne François has called an 'invisible boundary' between Catholics and Protestants.<sup>5</sup> This bi-confessional organisation of Augsburg's medical marketplace, officially controlled by a board of local academic physicians, the *Collegium Medicum*, remained remarkably stable until the dissolution of the *Collegium* by the Bavarian government in 1806.

The city's wealth of civic health care institutions, in particular, remained a source of pride. The Augsburg engineer and architect Lucas Voch (1728–1785) proudly claimed in his bestselling *The Civic Art of Building* of 1781 that no other German city had as many hospitals and other 'civic works of charity' (*bürgerliche Liebeswerke*). However, other enlightened visitors of Augsburg's hospitals did not share Voch's pride. The Marburg physician and medical reformer Ernst Gottfried Baldinger (1738–1804) was shocked by what he encountered in 1796. All health institutions, he reported, were overcrowded and unbelievably dirty. None of the staff and medical personnel met Baldinger's enlightened standards. Their ignorance, he claimed, had even killed some inmates. Baldinger's damning judgement was not exceptional; another visiting doctor found the hospitals' conditions simply 'disgusting' (*abscheulich*).

Whether these depictions of messy wards and hordes of ignorant healers matched the reality of Augsburg's eighteenth-century health care institutions remains uncertain. Historians of medicine have cautioned us not to take everything that reform-minded physicians like Baldinger had to say about their competitors for granted. In the eyes of enlightened physicians, everyone and everything besides their own medical ideas and practice was often wanting. Whether such considerations also colored Baldinger's views on Augsburg we do not know, because, so far, research on the city's eighteenth-century medical market place has not been conducted. This chapter does not aspire to close this gap. Instead, it traces the emergence and organisation of the city's larger medical institutions and the range of official and illicit medical services that enlightened contemporaries either praised or condemned.

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<sup>&</sup>lt;sup>5</sup> François argued that, while pragmatism reigned in most business and political relations, a strong but 'invisible boundary' was drawn in family and social life. See François, *Unsichtbare Grenze*, pp. 70-72, 84-142, 190-243.

<sup>&</sup>lt;sup>6</sup> Voch, Bürgerliche Baukunst, p. 37.

<sup>&</sup>lt;sup>7</sup> Baldinger, "Nachrichten von Wien, München und Augsburg".

<sup>&</sup>lt;sup>8</sup> Bisle, *Die öffentliche Armenpflege*, p. 116.

<sup>&</sup>lt;sup>9</sup> Lindemann, *Health & Healing*, pp. 3-21.

<sup>&</sup>lt;sup>10</sup> For information on Augsburg's eighteenth-century itinerant healers, see Probst, *Fahrende Heiler*.

In order to understand the structure and dynamics of Augsburg's early modern medical marketplace, we need to take into account two invisible boundaries. Apart from the city's bi-confessional administrative and institutional structure, civic health care institutions were equally shaped by the ancient division of the human body in terms of an 'inner' (invisible) and an 'outer' (visible) sphere. As we shall see, it is this distinction, and the professional struggles that unfolded over who was responsible for the 'inner' body, that structured professional relationships and explains the specific hierarchy of the city's healer community from the sixteenth until the end of the eighteenth century.

### Institutional Care for the Sick and Poor: A Historical Overview

In 1812 the Augsburg patrician, lawyer, and Bavarian civil servant Franz Eugen von Seida und Landensberg (1772–1826) published a history of the city's charitable and medical foundations. His *Historical and Statistical Description of All Ecclesiastical, Educational, and Charity Institutions in Augsburg* reflected recent radical changes in the city's political status and the identity of its citizens. In 1806 Augsburg had lost its status as an imperial city and became part of the Bavarian kingdom. This entailed a complete overhaul of the city's communal affairs, including civic charity and health care institutions. The *Collegium Medicum*, which had officially overseen the city's medical provisions since 1582, was dissolved in 1807 and some of its responsibilities were transferred to the newly defined local *Polizeydirection*. Seida's historical overview was to serve the new Bavarian administrators as a guide in their attempt to integrate the local health system into a centralised Bavarian *Medizinalwesen*. It traced the decline and marked the end of a long tradition of charity and health care that had its roots in the late Middle Ages.

Seida's account showed that Augsburg's main health care institutions, like those in other cities of the Holy Roman Empire, originated in an alliance of the Catholic Church with lay initiatives. <sup>14</sup> The primary objective of these foundations was the organisation of Christian charity amongst those in need due to illness or other infirmities. <sup>15</sup> Augsburg's largest institution was the Hospital of the Holy Ghost, which, since the thirteenth century was

<sup>&</sup>lt;sup>11</sup> Seida, *Beschreibung*.

<sup>&</sup>lt;sup>12</sup> Dietrich, *Integration*.

<sup>&</sup>lt;sup>13</sup> Probst, "Reform des Medizinalwesens."

<sup>&</sup>lt;sup>14</sup> Kießling, Bürgerliche Gesellschaft.

<sup>&</sup>lt;sup>15</sup> Despite several new studies, a fundamental work on German hospital history remains Reike, *Das deutsche Spitalwesen*.

located within the inner city walls, near the Red Gate. <sup>16</sup> Given a new home in the early seventeenth century by Augsburg's famous architect Elias Holl (1573–1646), it housed about 250 elderly and frail citizens, including the mentally disturbed and those afflicted from falling sickness (a form of what is known today as epilepsy). <sup>17</sup> Leprosy was first mentioned in civic sources in the thirteenth century, when its sufferers were separated from the healthy population in special leper houses. <sup>18</sup> The first of these, St Servatius, was established in the mid-thirteenth century with donations from various pious burghers. When it proved too small, two further leprosaria were opened in the early fifteenth century, St Sebastian and St. Wolfgang. The Pilgrim's House, founded in the fourteenth century by the bequest of a wealthy local merchant, created additional space for the curable poor and infirm. <sup>19</sup> By the mid-sixteenth century it was re-located to the Barfüsser Gate thanks to another pious bequest and housed about seventy poor and sick residents.

Like the Pilgrim House, all local facilities owed their existence to private initiatives and the generosity of pious citizens or to the Catholic Church. But by the end of the sixteenth century this was no longer the case. The number of private or Church-run institutions had plummeted, while the city council became the most important benefactor. An exception were the two private French pox hospitals of the Fugger family, established in 1523-24 in their social housing project, the *Fuggerei*, in the *Jakobervorstadt* in 1572, and the family's private surgery on the Horse Market.<sup>20</sup> New health care institutions, such as the civic "smallpox house" (*Blatterhaus*), established in 1495 and likewise situated in the *Jakobervorstadt*, were founded at the behest of the council, which also attempted to seize the administration of the existing charitable institutions. Augsburg is not the only city where such activities can be observed. Social historians have explained them as the culmination of an extended process of communalisation that had begun roughly two centuries earlier. It aimed at weakening the power of the Church within the city by bringing the most important care institutions into the hands of citizens and their representative body, the council. <sup>21</sup>

The magistrate's efforts to re-organise poor relief under its own auspices gained momentum during the sixteenth century. New civic institutions were founded, such as the

<sup>16</sup> Lengle, "Heilig-Geist-Spital."

<sup>&</sup>lt;sup>17</sup> Voch, Baukunst, pp. 89-99; Seida, Beschreibung, pp. 772-776.

<sup>&</sup>lt;sup>18</sup> On leprosy, see Kießling, *Bürgerliche Gesellschaft*, pp. 169-173; and Hammond, *Origins of Civic Health Care*, pp. 81-83.

<sup>&</sup>lt;sup>19</sup> Trompeter, *Pilgerhaus*.

<sup>&</sup>lt;sup>20</sup> For a detailed history of the pox hospitals see Stein, *French Pox*, pp. 91-110.

<sup>&</sup>lt;sup>21</sup> For an overview, see Jütte, *Obrigkeitliche Armenfürsorge*.

city's two plague hospitals in 1521 and in the early 1570s (to quarantine the victims of the plague that had regularly been visiting the city since 1349), and the "house for the needy" (*Nothaus*), which by the 1560s came to be used as a shelter for sick foreigners.<sup>22</sup> In accordance with the critique of traditional forms of Catholic charity during the Reformation, access to these civic institutions began to restricted: poor citizens were to be provided with relief only after careful examination and evaluation of their individual circumstances.<sup>23</sup> This process of centralisation peaked with the official establishment of the Reformation in the 1530s. Responsibility of all local charitable institutions passed into the hands of the council, now dominated by evangelical-minded members of the guilds. The council's control over the health care institutions remained in force even after Charles V enforced the re-establishment of Catholicism and the adoption of a patrician regime in 1548. The council was subsequently dominated by small group of Catholic patricians who ruled over a largely Protestant population, yet both denominations managed to co-exist more or less peacefully until the Thirty Year War.<sup>24</sup> This co-existence was reflected in the administration of civic health care institutions.

The fortune of these institutions during the seventeenth century is yet little researched, but the records indicate that the general deterioration of the city's finances and administration during and after the Thirty Years' War also resulted in dwindling financial support for civic institutions. <sup>25</sup> Epidemics due to hunger and disease accompanied the periods of warfare and economic crisis. These were especially difficult times for the city's poor and sick, whose numbers rose correspondently and increased dramatically when poor people from the devastated countryside poured into Augsburg, seeking additional support from already strapped civic institutions. Moreover, during the city's successive occupations by various foreign armies, the larger health care institutions were temporarily converted into barracks or stables to accommodate the soldiers, or were destroyed. <sup>26</sup> However, despite wartime losses, destruction and serious financial constraints, the majority of the city's larger health institutions managed to survive and remained under civic authority until 1806. Despite the difficulties which they faced, they retained their bi-confessional character from the mid-

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<sup>&</sup>lt;sup>22</sup> The *Nothaus* was administratively joined with the Pilgrim House. During the eighteenth century it served as a shelter for single and pregnant poor women. Bisle, *Armenpflege*, pp. 119-122.

<sup>&</sup>lt;sup>23</sup> Such tendencies can also be observed in Catholic Cities. For the socio-economic background, see Ludyga, *Obrigkeitliche Armenfürsorge*, pp. 178-82.

<sup>&</sup>lt;sup>24</sup> See chapters 7 and 11 of the present volume

<sup>&</sup>lt;sup>25</sup> Bátori, Reichsstadt Augsburg.

<sup>&</sup>lt;sup>26</sup> See chapter 15 of this volume.

sixteenth century to 1806. Members of both denominations were equally entitled to admission, and both Catholic and Protestant inmates had access to religious services. While female and male patients were admitted to separate wards in the sixteenth and seventeenth century,, a separation by denomination does not seem to have been established. For the late eighteenth century, however, Voch's architectural overview reveals that the patients in the Holy Ghost hospital and the Pilgrim house were separated by their sex as well as their denomination. Whether the occasional disputes between inmates and/or staff over religious issues recorded in the archival sources led to the spatial demarcation of this invisible confessional boundary remains to be ascertained. However, as both Catholic and Protestant administrators and patients feared the wrath of God in response to sinfulbehavior, confessional separation may have been the logical outcome.

### **Admission Practices**

While a Christian applicant's denomination did not subject him or her to discrimination in Augsburg's health-care institutions, the council devised other strategies to restrict access in order to cope with rising numbers of applicants and increasingly financial difficulties. As in other cities, the distinction between 'deserving' and 'undeserving' poor was imposed in terms of residency and civic status.<sup>27</sup> By far the most important criterion for admission in all civic institutions, however, was the applicant's physical condition. From the 1520s onward no one was to be admitted without a previous Geschau, a physical examination, conducted by a learned physician and/or barber-surgeon. 28 Admission was granted only if the physical condition of the applicant matched the institution's specific criteria. The general entrance ticket to the Hospital of the Holy Ghost was the applicant's age, since the institution served as a retirement place for old and needy citizens (who often brought their own endowment to pay for their stay until they died). Eligible patients were only accepted if their bodies did not manifest open lesions or (even worse) 'infected matter'. Supplicants diagnosed by the medical team as openly infectious were immediately transferred to another institution, specialised on the treatment of such conditions: the Pilgrim House, the leper houses, or the civic pox house.

The Pilgrim House, which from the later sixteenth century onwards treated about five hundred sufferers per year, catered for all those 'afflicted with open wounds and other vile

<sup>&</sup>lt;sup>27</sup> Clasen, "Armenfürsorge".

<sup>&</sup>lt;sup>28</sup> For this and the following, see Stein, *French Pox*, pp. 76-79.

diseases' but specified that the wounds must be 'curable'.<sup>29</sup> Concerns for the health of other inmates along with financial considerations played a crucial role in this restriction. The chronically cash-strapped administrators sought to avoid the admission of incurably ill, fearing extra costs for their institution. Definitely barred from entry were sufferers from leprosy, who had to apply at one of the three leper houses. Interestingly, by the sixteenth century the disease was no longer perceived as necessarily 'incurable', making the leper houses attractive for idlers who, without any signs of leprosy, were simply hanging about there because of 'bad weather', at least according to the council and the attending physicians.<sup>30</sup> Visitations by civic physicians to 'winkle out' those inmates who were cured or stayed there under false pretenses in the first place, became common. The chronic shortage of beds in the three leper houses also led the chief administrators to refuse admission of cases in which the medical staff failed to reach an unambiguous and unanimous diagnostic verdict.<sup>31</sup>

This was the fate of Anna Nidermair, who was diagnosed as 'afflicted with loathsome scabs' in October 1609, but with the medical practitioners being unable to agree on whether these were related to leprosy or the French pox, the guardians of the leper homes refused her admission.<sup>32</sup> She was referred to the *Blatterhaus*, whose guardians also refused to accept her. Only after the council's intervention was her case resolved: she was to be exceptionally accepted to the *Blatterhaus* for observation until a place in one of the leper houses would become available.<sup>33</sup> This, in turn, upset the *Blatterhaus* guardians, who had been instructed since 1495 (when the hitherto unknown disease made its first appearance in the city) only to accept those showing unambiguous symptoms of the French pox. The guardians had been instructed not to accept and always discharge ambiguous cases in order to protect their own inmates from being 'contaminated' with other ailments. The substantial number of cured inmates over the years demonstrates that the *Blatterhaus* was indeed a therapeutic success story (as were the two private "woodhouses" of the Fugger families). This success was largely attributed to the use of a new therapeutic drug from the New World since the 1520s, the guaiacum wood.<sup>34</sup>

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<sup>&</sup>lt;sup>29</sup> Clasen, "Armenfürsorge," p. 104.

<sup>&</sup>lt;sup>30</sup> For this and other cases see Stein, *French Pox*, pp. 79-80.

<sup>&</sup>lt;sup>31</sup> For the *examen leprosorum*, see Sudhoff, "Was geschah," pp. 150-52.

<sup>&</sup>lt;sup>32</sup> For her case, see Stein, *French Pox*, pp. 81-82.

<sup>&</sup>lt;sup>33</sup> Stadtarchiv Augsburg, St. Martin, Fasz. VI, Prod. 88: Bericht der Pfleger des St. Servatius Siechenhauses; ibid., Bericht der Oberpfleger über das Blatterhaus, 16 January 1610.

<sup>&</sup>lt;sup>34</sup> The Fugger hospital in the *Fuggerei* was therefore called the woodhouse. Contrary to historical opinion, the Fuggers never held a monopoly on the sale of the wood. For the history of this myth, see Stein, *French Pox*, pp. 101-105.

Victims of the most dreaded of all diseases, the plague or Black Death, which first appeared in the city in 1349, were treated in the two civic plague houses. They only opened their gates if the dreaded epidemic was back in town.<sup>35</sup> Transfer to the two *Lazarethe* was decreed by the council as soon as medical practitioners identified a case. The barber-surgeon Joseph Schmidt (1601?–1667), who had worked for years as Chyrurgus lazarethanus, remembered that such a verdict was never proclaimed lightly and its public announcement was delayed as long as possible. 36 The council thus hoped to prevent a sudden panic among the population, possibly followed by a serious interruption or even a breakdown of all civic and economic life. Moreover, time was needed to prepare the necessary quarantine measures in the city and staff the plague houses. Although recent studies on early modern Augsburg have pointed out that the official and public response to the plague was rather less dramatic than the older historiography suggested, spreading the news of a possible new case of plague was considered a grave offense for any physician or barber-surgeon and was officially prosecuted.<sup>37</sup> By the mid-eighteenth century, when the plague had ceased to terrorize the city but the memory of its devastations continued to haunt even enlightened contemporaries.<sup>38</sup>In his discussion of the city's plague houses, the architect Voch thanked the Lord that he and his family had never had to experience an outbreak. He reported in 1781 that the plague houses were treating cases of dysentery, smallpox, scabies, venereal disease, cancer, scurvy, and many other diseases deemed infectious.<sup>39</sup>

## Invisible Bodily Worlds: God, Stars, Humors, and Disease

The diagnostic verdict of medical practitioners, which was at the core of the admission process in all civic institutions, was based on an understanding of the human body that was fundamentally different from ours. The decision reached in the case of Anna Nidermair — which, from a modern perspective, might appear as a sign of colossal medical incompetence

<sup>&</sup>lt;sup>35</sup> To what extend mid-14th-century Swabia and Augsburg were affected by the plague is a matter of debate. For this see Raphael M. Krug, "Pest in Augsburg 1348-1351? Eine Studie zur Frage des Pestvorkommens zu Zeiten des Schwarzen Todes in Europa", in: Rolf Kießling, Hg., *Stadt und Land in der Geschichte Ostschwaben*s, Augsburg 2005, S. 285-321, also Horanin, *Pest*. For an impressive reconstrution of the city's response to the plague of 1627/28 see Bernd Roeck, *Eine Stadt in Krieg und Frieden*, vol 2, pp. 630-654; for the reactions of the council see 639-642.

<sup>&</sup>lt;sup>36</sup> Cf. Ecker-Offenhäußer, 'Pest, Frantzosen, Scharbock'.

<sup>&</sup>lt;sup>37</sup> See Mauer, 'Gemein Geschrey', p. 204.

<sup>&</sup>lt;sup>38</sup> The last outbreak of the plague in Western Europe occurred in Marseilles in the early 1720s.

<sup>&</sup>lt;sup>39</sup> Voch, *Baukunst*, pp. 43-45. For the problem of 'retrospective diagnosis', i.e. the identification of past with modern diseases, see Stein, "'Getting' the Pox."

– has to be understood in the context of the division of the human body into an 'outer' visible and 'inner' invisible sphere — a major symbolic opposition in Western medicine from its first formulation in ancient Greek Hippocratic medical treatises. <sup>40</sup> In order to comprehend what was happening within the invisible depths of the body, the outer signs of disease needed to be interpreted by taking into account the multiple links between the human body (the microcosm) and the surrounding God-created world (the macrocosm). The tenets of this understanding of the body's functioning remained powerful well into the eighteenth century. <sup>41</sup> Archival records in Augsburg demonstrate that these explanations were shared by medical practitioners and patients alike, and they continued to do so despite the rise of new materialistic, mechanical and chemical theories of the body and new medical practices such as pathological anatomy or cowpox inoculation during the late seventeenth and eighteenth century. <sup>42</sup>

Surgeon Joseph Schmid's explanation for why he had never caught the plague (or the French pox while he worked in the *Blatterhaus*) offers a first point of entry into the complete 'otherness' of this world. The Almighty, he explained, specially protected medical practitioners so that they were able to fulfil their God-given duty. Anyway, he believed, plague or pox victims could only infect healthy persons if their complexion, their individual mixture of humors and qualities, were similar. Schmid's firm belief in God as the *prima causa* for all illness was shared by Protestants and Catholics alike. No one doubted that illness and pain were God's reminder of humanity's original sin, which had tainted mankind forever. Physical suffering was a divine punishment with which the Almighty chastised the sins of mankind. Illness therefore always had a higher purpose, and to cope with it necessarily involved a coming-to-terms with one's Maker. In the case of plague, for example, Augsburg's terrified citizens hoped to appease God's anger and attract his mercy with 24-hour processions, mass public prayers, and – if Catholic -- pilgrimages to nearby shrines of saints. It was only with the Reformation, which stressed individual inner redemption through faith and grace, that Protestants increasingly considered certain Catholic practices,

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<sup>&</sup>lt;sup>40</sup> For these ideas, see Lindemann, *Medicine and Society*, pp. 19-20, and Jütte, *Ärzte, Heiler und Patienten*.

<sup>&</sup>lt;sup>41</sup> See Duden, Women Beneath the Skin.

<sup>&</sup>lt;sup>42</sup> On eighteenth-century medicine, see Pfeifer, *Medizin in der Goethezeit*; Broman, *Transformation*. On the theory of vitalism, which rejected materialistic theories of nature and the human body, see Reill, *Vitalizing Nature*.

<sup>&</sup>lt;sup>43</sup> Cf. Schmid, *Kurtzer iedoch Gewisser bericht*, pp. 29-31.

<sup>&</sup>lt;sup>44</sup> Stein, French Pox, pp. 23-30.

<sup>&</sup>lt;sup>45</sup> Horanin, *Pest*, p. 5.

like miracle healings or the veneration of holy relics, suspect. How this affected spiritual responses to illness in bi-confessional Augsburg requires further investigation.<sup>46</sup>

It was widely believed that via his 'helpers', the stars and planets, God was able to express His disapproval of sinful human actions by altering the four elements (air, earth, water and fire) that made up the earthly sphere and everything in it, including the human body.<sup>47</sup> This idea of a God-created and controlled cosmos accounts for the great importance that contemporaries attached to the readings and interpretation of the skies to explain all kinds of medical issues. Augsburg's physicians had studied astronomy and astrology during their university years. That some of them possessed extensive knowledge in this area is demonstrated by the work of Achilles Pirmin Gasser (1505–1577).<sup>48</sup> His writings on the plague and other diseases, in Latin for his academic peers and in German to instruct Augsburg's 'common man', not only indicate how important astrology was (and would remain) for the explanation of disease causation but also for the prognostication of its possible outcome. 49 Every year the academic physicians were asked by the council to produce the city's official astrological calendar that informed all local practitioners about the most appropriate astrological times for bloodletting, bathing, cupping, and even the cutting of one's hair. Serious surgical operations outside the appropriate times were deemed dangerous, possibly even lethal.<sup>50</sup>

The close interconnection between the body and the cosmos was mediated through the ancient ideas of elements, complexion and humors. Each person was believed to be endowed with an innate mixture of the four elements and their related qualities (dry, moist, hot and cold), his or her 'complexion' or 'temperament', acquired at the moment of conception and kept more or less intact throughout life. <sup>51</sup> Closely associated with the concept of complexion was the theory of the four humors and their individual qualities: blood (hot/wet), phlegm (cold/wet), yellow bile (hot/dry), and black bile (cold/dry). Depending on which humor dominated a person's innate complexion, he or she was either sanguine, phlegmatic, choleric, or melancholic. Produced from the foodstuffs in the stomach and

<sup>46</sup> For the Protestant critique of such practices see, e.g., Daston, "Wunder."

<sup>&</sup>lt;sup>47</sup> Recent scholarship has argued that there were few differences between Protestants and Catholics regarding the belief in medical astrology. See Kusukawa, "'Aspectio divinorum operum'."

<sup>&</sup>lt;sup>48</sup> Burmeister, *Gasser*.

<sup>&</sup>lt;sup>49</sup> Gasser published several astronomical and astrological treatises between 1531 and 1546 and was open to Copernicus' then controversial idea of the heliocentric universe. Burmeister, *Gasser*, vol.1, pp. 62-80.

<sup>&</sup>lt;sup>50</sup> Hoffmann, "Augsburger Bäder," p. 29.

<sup>&</sup>lt;sup>51</sup> For an excellent general overview, see Siraisi, *Medieval and Early Renaissance Medicine*.

distributed through the body via the liver, humors fulfilled two central functions in the body's economy: they nourished the individual organs and body parts and collectively were the means whereby an individual's overall complexional balance was maintained and health kept. Any alteration of one's innate humoral balance carried the risk of disease.

Information about how to keep one's humoral balance and hence healthiness was easy to obtain in Augsburg, one of the major European printing centers.<sup>52</sup> Medical advice literature in the German vernacular was published here as early as the fifteenth century. The *Ordnung der Gesundheit* (1475) was in fact the very first published medical regiment in German and contained a section on how to behave in times of plague.<sup>53</sup> The advice provided did not differ much from that which Achilles Primin Gasser offered the public roughly a century later.<sup>54</sup> The key to survival, according to Gasser's *Unterricht wider die Pestilenz* (1565), was a strictly regular lifestyle that observed the 'sixnon-naturals', influences which the human body was incessantly exposed to, such as air, evacuation and retention, food and drink, motion and rest, sleeping and waking, and the passions.

All medical treatment aimed at 'correcting' the imbalance of humors. The 'poisonous' disease matter could be either expelled through bloodletting, cupping, purging, and sweating. If already too deeply 'rooted' in the body, specific medication and drugs, whose qualities were opposed to those of the diagnosed imbalance, were administered. The appearance of the French pox at the end of the fifteenth century triggered a virtual explosion of printed treatment advice by Augsburg's physicians, surgeons and apothecaries, praising the benefits of the new drug guaiacum and offering recipes for the preparation of the wood drink and treatment at home. But Augsburg was also the place where an early patient shared his experience of the French pox with fellow sufferers in print. The imperial knight, poet and reformer Ulrich von Hutten (1481–1532) undertook a guaiacum cure in one of Augsburg's private pox houses and published his gruesome experiences after his alleged miraculous recovery.<sup>55</sup>

Sufferers like Hutten held their bodies to be a seething mass of humors and fluids rather than an assembly of discrete organs or cells. A constant exchange took place between

<sup>&</sup>lt;sup>52</sup> See chapter 19 of this volume.

<sup>&</sup>lt;sup>53</sup> Horanin, *Pest*, p. <mark>34</mark>.

<sup>&</sup>lt;sup>54</sup> Gasser, *Unterricht*. See the facsimile of this tract in Burmeister, *Gasser*, pp. 142-143.

<sup>&</sup>lt;sup>55</sup> The tract was first published in Latin and translated by Thomas Murner into German. Hutten, *Von der wunderbarlichen artzney*. For Hutten's suffering and therapy see Stein, *French Pox*, pp. 27-29; 32-34; 39-40.

the body's inside and the outside through its invisible boundary and openings, such as the nose, ears, eyes and pores. No early modern person perceived disease as etiologically, morphologically or symptomatically separate from other diseases, as we tend to do today. Patients' hospital records and surviving diagnosis certificates show that a disease such as the pox could manifest itself in different ways in different individuals.<sup>56</sup> Moreover, diseases were able to metamorphose into each other. There were hundreds of species of leprosy, plague or the pox, which were believed to originate from subtle and innumerable differences in the mixture of the four vital humors, hidden in the invisible depth of the individual inner body. Diagnosing disease was therefore a subtle business that relied as much on the opinions and interpretation of the sufferer as on the professional expertise of the medical practitioner. The verdict of the medical team reached in the case of Anna Nidermair was therefore not a sign of the incompetence of medical theory and practice but a reflection of its core tenets and strengths. In what follows we shall see how this conception of the human body not only explains the logic of many diagnostic verdicts and the choices of medical treatment but also the hierarchical organization of Augsburg's medical healers until the end of the eighteenth century.

# Professional Hierarchies and the Body's Invisible Boundary

In 1806 the Catholic physician and dean of Augsburg's *Collegium Medicum*, Joseph Ahorner von Ahornrain (1764–1839),<sup>57</sup> and his colleagues lost control over the city's medical marketplace. Following a Bavarian royal decree, the city's board of health, consisting of Catholic and Protestant academic physicians, was officially dissolved, and a long history came to an abrupt end.<sup>58</sup> Since 1582 the *Collegium* had presided over the organization of the civic hospitals and had undertaken the examination and licencing of local surgeons, barbers, and midwives as well as the 'visitations' of the local pharmacies. Its members had also acted as arbiters in cases of professional dispute and malpractice. Besides the monitoring of the official healer community, the *Collegium* kept track of the many illicit healers from inside and outside the city, testing their potions and alleged wonder cures and issuing prohibitions when they found them potential health threats to patients. In times of epidemics, the members of the *Collegium* became official diplomats of the city, negotiating quarantines and rights of

<sup>&</sup>lt;sup>56</sup> On medical semiotics see Siraisi, "Disease and Symptoms." For the slow development of modern concepts of disease during the nineteenth century, see Carter, *Rise of Causal Concepts*.

<sup>&</sup>lt;sup>57</sup> Seidl, "Joseph von Ahorner."

<sup>&</sup>lt;sup>58</sup> Deininger, "Collegium Medicum Augustanum;" Salzbrunn, "Ende;" Gensthaler, *Medizinalwesen*.

passage for foodstuffs and goods with the representatives of neighboring communities and territories. Altogether, the *Collegium* enjoyed considerable social prestige and political power. Moreover, Ahorner's biographies of the *Collegium's* physicians show that membership also entailed significant economic opportunities. Due to Augsburg's political and economic importance as an imperial city (particularly during the sixteenth century), some academic physicians established a European clientele of wealthy merchants, noblemen, diplomats and visitors who paid generously for their services. Some even treated kings and queens, and many were well-known intellectuals who contributed considerably to the city's cultural and scientific development and international fame. Ahorner himself was a widely-known naturalist and collector of natural specimens whose collection of butterflies attracted many foreign visitors.<sup>59</sup> But these prosperous times were now definitely over, as Ahorner and colleagues realized only too painfully. Not everyone, Ahorner is an example, was able to continue his career the newly established Bavarian *Medizinalwesen*, controlled by the central medical office in Munich.<sup>60</sup>

Reading Ahorner's celebratory biographies of the *Collegium* members, written at a time when academic physicians' social, political and economic standing had been undermined, conveys an impression that their leading position in the city had always rested on their academic medical and scientific knowledge. However, the archival sources, particularly those of the earlier sixteenth century, present a rather different story. The power of the academic physicians and their representation, the *Collegium Medicum*, was never uncontested. Due to the particular understanding of the human body discussed above, academic physicians constantly had to negotiate their position in the marketplace with other healers and consumers. Only after long struggles did the academic physicians establish the superiority of their knowledge of the 'inner' body and were able to claim control over Augsburg's medical marketplace. The foundation of the *Collegium Medicum* in 1582 was the official and widely visible outcome of their strategic maneuvering, which began in the early sixteenth century.

The earliest example of the physicians' ambitions is the struggle over cures in the *Blatterhaus*. In the early years of the institution, much to physicians' chagrin, treatment lay

<sup>&</sup>lt;sup>59</sup> For his collection and his publications, see Pfeufer (ed.), *Von der Natur fasziniert*, pp. 85-86. Ahorner was also an accomplished draftsman and published two beautifully illustrated volumes on shells and butterflies, which are held at the Staats- und Stadtbibliothek Augsburg. For a comprehensive overview of eighteenth-century scientific collecting in Germany, see Siemer, *Geselligkeit und Methode*.

<sup>60</sup> Probst, "Medizinalwesen."

entirely in the hands of non-academic *empirics*. Only in the 1520s, after intense lobbying and the proposition of a new miraculous treatment -- the wood guaiacum whose workings, the physicians' claimed, was known only to them, were they able to gain control of the institution. By 1522 the *Blatterhaus* ordinance installed a physician firmly at the top of the staff hierarchy. For the first time, academic medical expertise on the inner invisible body was officially acknowledged by the council as superior to the work of barber-surgeons. The latter were now officially restricted to the 'outer' sphere of the patient's body (and remunerated significantly lower) and had to work in the presence of an academic physician.

The unity that the physicians displayed as a professional group in this case was to become one of their strategic tools in dealing with the council and competing medical practitioners. The occasional disputes among the group of physicians over the 'correct' medical theory and practice, one of which erupted over the local publications of the maverick physician Paracelsus (1493–1541), eventually strengthened their professional unity, which they eagerly demonstrated to the city council in all matters of public health. 62 This appearance of unity, however, was not only based on (and strengthened by) shared academic expertise and its vocal public defense against medical outsiders such as Paracelsus. The key to the physicians' success were their social and political relations. During the sixteenth century, marriages between physicians, often immigrants and/or from prosperous backgrounds, and daughters of wealthy patricians became increasingly common. They were indicative of the rising reputation and social status accorded to widely travelled, universitytrained humanist physicians in a city that was turning into one of Europe's leading economic and cultural centers. 63 A telling example is the already mentioned Lutheran physician and humanist scholar Achilles Pirmin Gasser, who married a rich widow from one of the city's most influential and patrician families soon after his arrival in Augsburg.<sup>64</sup> Financially secure, Gasser gained immediate access to the city's highest political decision-making bodies, which offered him the opportunity to advise the council in questions of public health. His social and personal ties with the elites were further strengthened when, during times of plague, he acted as the city's official plague physician. Instructing the public through his own publications, Gasser also ran a lucrative private practice. Entertaining correspondences with many humanist intellectuals, his medical advice came to be sought by the rich and powerful

<sup>61</sup> For house organisation Stein, French Pox, pp. 107-114.

<sup>&</sup>lt;sup>62</sup> Weeks, *Paracelsus*. On Paracelsus in Augsburg, cf. Hammond, "Paracelsus."

<sup>&</sup>lt;sup>63</sup> For their university studies, see Martz, Gesundheitswesen.

<sup>&</sup>lt;sup>64</sup> For his family relations see Burmeister, *Gasser*, p. 109.

all over Europe. Some of his children and grandchildren followed him in his successful career, a phenomenon that can also be observed in other physician families. Medical dynasties such as the Gassers, Occos or Jungs became increasingly frequent. That physicians used their social ties to their professional advantage is evident in the organisation of city's midwifery system, which came under the control of the doctors – and their patrician wives — from the 1520s onwards. (By the eighteenth century, as elsewhere in Europe, midwifery was entirely under the control of a specially appointed academic physician, the *accoucheur.*)

The physicians not only exploited their family relations and elevated political status but also elevated themselves by exploiting the ongoing disputes among their most serious competitors on the medial marketplace, the bath masters, barbers, and barber-surgeons such as Joseph Schmid. These practioners of 'trades of the body' ran the city's bathhouses, cut hair, shaved, performed bloodletting, treated external injuries, and performed more serious surgical operations, such as fixing broken bones, extracting bladder stones (lithotomy), hernia operations or amputations. <sup>69</sup> Some local barber-surgeons were as famous as their academic colleagues; their skills were in high demand and well-paid all over Europe. Without professional representation on the council, however, they had difficulties exerting any sustained influence on the council's decision-making in questions of public health. This situation was exploited by the physicians. 70 Directed particularly at the barber-surgeons who had hitherto performed 'inner medicine' (medications that affected the composition of the humors) under their own auspices, the council forbade them to do so. Further decrees confirmed that they could only cure 'external' and surgical wounds. As the barber-surgeons apparently lacked knowledge of the hidden secrets of the body, the physicians explained to the council, they should only be allowed to perform their trade under the supervision of academic colleagues. That the physicians exaggerated and the barber-surgeons were well aware of this is revealed in many official complaints about the impossibility of keeping up

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<sup>&</sup>lt;sup>65</sup> On his European networks see Burmeister, *Gasser*, pp. 135-142.

<sup>&</sup>lt;sup>66</sup> Most famous was his grandson Johann Ulrich Rumler (1565–1626), who allegedly treated Queen Anne of England. Burmeister, *Gasser*, p. 119.

<sup>&</sup>lt;sup>67</sup> Hammond, *Health Care*, pp. 98-10. On the development of male midwifery in Germany, see Labouvie, *In anderen Umständen*.

<sup>&</sup>lt;sup>68</sup> For details on these 'acchoucheurs' in the Augsburg *Nothaus*, which served as the local *Achouchir-Anstalt* in the eighteenth century see Baldinger, Augsburg, p. 19-20.

<sup>&</sup>lt;sup>69</sup> Hoffmann, "Augsburger Bäder"; Ecker-Offenhäußer, 'Pest, Franzosen, Sccharbock', pp. 28-33; Hammond, Health Care, pp. 74-75, 166-180.

<sup>&</sup>lt;sup>70</sup> See Stadtarchiv Augsburg, Collegium Medicum, Ordnungen und Decreta, 1625-1804, 4 June 1532.

this invisible professional boundary. Thus Joseph Schmid's publications, directed at instructing local barber-surgeon apprentices, clearly show how sophisticated surgical knowledge actually was. It included the theory of complexion and humors, extensive knowledge of herbs, minerals and plants, as well as astrology.<sup>71</sup>

Less acrimonious were the relationships between the physicians and the local apothecaries, who also came under the physicians' control during the sixteenth century. Traditionally, apothecaries had often been local grocers and spice traders, dealing, among other things, with medicinal drugs. Increasingly, however, sixteenth-century apothecaries were recruited via the international patronage networks of local physicians. Of course, such patronage relations came at a cost for these apothecaries. The initiative of four physicians (amongst them Gasser) and one apothecary resulted in the *Pharmacopaea Augustana* of 1564 (one of the earliest work of its kind and much copied thereafter), which listed all medications officially permitted in the city, fixed their prices, established rules for their preparation, and granted the physicians the right to control observance of these new rules in all apothecary shops several times a year on the basis of their academic knowledge. Once again, the physicians managed to turn their expertise on the inner body into a professional boundary. The founding of the *Collegium Medicum* in 1582, which acknowledged the physicians at the top of the city's hierarchy of healers, sanctioned these professional distinctions. Officially, the control over the Augsburg medical marketplace was finally theirs.

The sources suggest, however, that this control was far from complete or comprehensive. How could it be otherwise? The ancient invisible distinction between the inner and the outer body, which had emerged as the demarcation line among Augsburg's official healers during the sixteenth century, was too weak to serve as a 'barbed-wired' boundary between them. As already mentioned, the barber-surgeons found it impossible to respect this imaginary boundary in their daily business, particularly in cases of accident. Equally important, the great majority of the surgeons' patients did not possess the financial means to pay the academic physicians' higher fees. The barber-surgeons' suggestion that the physicians just went for the money was immediately refuted by the latter, who in turn depicted their competitors as ignorant *empirics* who themselves robbed the innocent sick

<sup>&</sup>lt;sup>71</sup> On education, see Ecker-Offenhäußer, 'Pest, Franzosen, Scharbock', pp. 17-28, 44-48.

<sup>&</sup>lt;sup>72</sup> Gensthaler, *Medizinalwesen*, p. 60-69.

<sup>&</sup>lt;sup>73</sup> Cf. Gensthaler, *Medizinalwesen*, pp. 95-100.

<sup>&</sup>lt;sup>74</sup> Joseph Schmid's work shows this clearly: Stein, *French Pox*, pp. 117-120.

whenever possible. 75 These aggressive exchanges between physicians and barber-surgeons (which increased after 1582) tend to hide the fact that both groups generally shared professional responsibilities along the lines of the dualistic body. Indeed, many of the civic surgeons' and physicians' activities required 'team work', such as the daily rounds through the wards of the civic health care institutions or autopsies to establish the causes of death, involving cases of physical violence or possible malpractice. <sup>76</sup> Both professions also shared certain political aims. Central was their joined battle against a heterogeneous group of healers, both local and itinerant, who had not undergone an officially acknowledged medical training and/or lacked the residency or citizen status necessary to officially practice it in the city. From the 1530s onwards the physicians increasingly acted as the advocate for all official healer groups in their fight against these unlicensed 'quacks' and 'ignorant empirics'. 77 They repeatedly reminded the council of its God-given obligation to protect all local medical trades against outside encroachments. But although the founding of the Collegium Medicum made the physicians the council's official advisers in questions of public health, the council continued to act independently of its recommendations and often allowed itinerant healers to practice. The local executioner, for example, who derived his medical expertise from the performance of punishments and whose knowledge of human anatomy often surpassed that of authorized healers, was allowed to offer his skills as a bone-setter. Kathy Stuart has observed that Augsburg's executioners regarded medical practice as a legitimate right of their profession well into the eighteenth century, even advertising that they were executioners to draw more patients (to the annoyance of the authorized healer community). <sup>78</sup> One of their bestselling products was human fat (or 'poor sinner's fat'), a popular ingredient for all sorts of medical ointments, sold in local pharmacies and frequently used by surgeons to treat wounds.

Besides unorthodox local healers like the executioner, the council also granted many itinerant healers permission to sell their medication in the city, usually for a limited period of time and only for specific therapies or illnesses. The council officially entrusted the members of the *Collegium Medicum* with testing the applicants' knowledge and skills and sometimes their products as well in order to avoid potential health damage to the public. Once in possession of a permission from the *Collegium*, these healers were free to roam the streets

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<sup>&</sup>lt;sup>75</sup> Stadtarchiv Augsburg, Collegium Medicum., Fasc.1. Gegenbericht der Doktoren auf die Supplikation der sechs geschworenen Meister der Wundärzte, 8 April and 22 April, 1568.

<sup>&</sup>lt;sup>76</sup> Hammond, *Health Care*, pp. 168-180.

<sup>&</sup>lt;sup>77</sup> Stein, *French Pox*, pp. 119-112.

<sup>&</sup>lt;sup>78</sup> For Augsburg's executioners see Stuart, *Defiled Trades*, pp. 149-188.

and sell their wares. To enhance their public visibility during their limited stay, they often performed on stage or printed and distributed advertisement pamphlets. Not all of these advertisements were as sophisticated as that of the *pill maker (der Kugelmacher)* (Illustration).<sup>79</sup> Some of them, like Doctor Johann Georg Kiesow (1718–1786), a former military surgeon from Paris who arrived in Augsburg in 1762, played their cards so cleverly that they not only gained riches but were also invited by the council to become citizens (to the horror of the local physicians).<sup>80</sup> Kiesow's famous and bestselling *Lebenselexir*, a distilled potion containing, amongst other things, aloe and rhubarb, is sold until today.<sup>81</sup> Whether healers like Kiesow actually increased in number during the seventeenth and eighteenth century, as increasingly vociferous complaints by the local community of authorized healers suggest, requires further investigation. It is likely, however, that the increasing pressure on itinerant healers in the surrounding Bavarian territories, particularly under the rule of the enlightened Bavarian medical reformer Anton von Wolter (1711–1797), might have caused more of them to take refuge within the safe walls of the imperial city.<sup>82</sup>

The consumers of medical services in Augsburg cared little about the endless disputes among the local practitioners or their disputes with unauthorized competitors. And they cared even less for the strategic power games the council played with the academic physicians and the Collegium Medicum. To cope with illness without ever consulting a healer was not uncommon among Augsburg's sick, poor and rich alike. It is indeed striking to what extent the sick were accustomed to diagnose and treat themselves, usually turning to family and friends before seeking professional help. Even sufferers from the lower echelons of society often considered themselves competent judges of their physical conditions. Cases like that of the single mother Walburga Reuchard from 1564 are common.<sup>83</sup> Reuchard openly defied the diagnosis of her three-year-old daughter by the civic medical practitioners and appealed to the authorities to accept the correctness of her own interpretation of her daughter's symptoms. Applications received by the civic institutions reveal that Augsburg's patients mixed medical advice and services, disregarding the carefully drawn professional boundaries between the local authorised healers. Nor did they care whether the healer they finally chose was a member of the official community or an itinerant 'quack'. On the other hand, poor patients were confident to seek the advice of academic physicians if they deemed it

<sup>&</sup>lt;sup>79</sup> Cf. Stein, "Quack," pp. 193-195.

<sup>&</sup>lt;sup>80</sup> For the following, see Probst, *Fahrende Heiler*, pp. 116-118.

<sup>81</sup> It is still sold by the *Elisabeth-Apotheke* in Lechhausen.

<sup>82</sup> Stein, "Johann Anton von Wolter". For the rise of medical police, see Möller, *Medizinalpolizei*.

<sup>83</sup> See Stein, French Pox, pp. 143-144.

necessary. A closer look at the clientele of itinerant healers like the *Kugelmacher* reveals that those with more education or money, such as members of the Fugger or Welser families, highly valued their skills.<sup>84</sup> The rich sources in the Augsburg archives show that, while divided by wealth inequalities, the sick and their medical practitioners lived in a unitarian medical world. They shared the same language about the functioning of the human body and drew on shared knowledge about its relationship to the wider God-created natural world.<sup>85</sup>

### **Conclusion**

Early modern Augsburg offered a wide range of medical services to its ailing public. To understand the specific structure and dynamics of this medical landscape, the invisible religious boundaries of the body politic and, even more importantly, of the human body have to be taken into account. The latter, respected by practitioners and patients alike, was a powerful force in organizing the structure and daily life of the city's health care institutions and the hierarchy of its healers. Although the academic physicians, the guardians of the invisible boundary, began to control other healer groups since the 1520s, their Collegium *Medicum* never became an entirely secure stronghold of academic power over the city's medical marketplace. The understanding of the human body did not allow any healer group to force its competitors out of business, even if they strongly disagreed on many issues and tried their best to depict each other's skills and knowledge as inferior or even dangerous to the public. The close cooperation between specialists of the inner body (the physicians) and those of the outer (barber surgeons in particular) remained the norm. In each medical encounter the voice of the sick – rich or poor, educated or not – was central. Indeed Augsburg's patients, used to competently judge their own physical state as well as that of others and skilled in medicating themselves, were their healers' most feared critics. When Augsburg lost its status as an imperial city and became part of the new Bavarian kingdom, the organization of its medical marketplace changed. New powers structures were created and older ones, such as the Collegium Medicum, disappeared. Further research will have to demonstrate whether these new structures were able to cut across the two persistent but largely invisible boundaries that had stood at the core of the city's medical marketplace since the sixteenth century.

<sup>&</sup>lt;sup>84</sup> Cf. Stein, "Quack," pp. 192-196.

<sup>&</sup>lt;sup>85</sup> For the concept of the 'unitarian medical world' see Jones and Brockliss, *The Medical World*, p. 237; for my use of it, see Stein, *French Pox*, pp. 15-16.

## **Bibliography**

Baldinger, Ernst Gottfried, "Nachrichten von Wien, München und Augsburg über dortige Hospital-Anstalten," *Neues Magazin für Aerzte* 18 (1796), pp. 14-20.

Bátori, Ingrid, Die Reichsstadt Augsburg im 18. Jahrhundert: Verfassung, Finanzen, Reformversuche. Göttingen, 1969.

Bisle, Max, Die öffentliche Armenpflege der Reichsstadt Augsburg mit Berücksichtigung der eingeschlägigen Verhältnisse in anderen Reichsstädten Süddeutschlands. Paderborn, 1904.

Burmeister, Karl-Heinz, *Achilles Primin Gasser* (1505–1577). Arzt und Naturforscher, Historiker und Humanist, vol. I: Biographie. Wiesbaden, 1970.

Broman, Thomas H., *The Transformation of German Academic Medicine 1750-1820*. Cambridge, 1996.

Carter, Codell K., The Rise of Causal Concepts of Disease. Aldershot, 2003.

Clasen, Claus Peter, 'Armenfürsorge in Augsburg vor dem Dreißigjährigen Krieg', in: Zeitschrift des Historischen Vereins für Schwaben 78 (1984): 65-115

Daston, Lorraine, "Wunder, Naturgesetze und die wissenschaftliche Revolution des 17.

Jahrhunderts," Jahrbuch der Akademie der Wissenschaften zu Göttingen (1991), pp. 99-112.

Deininger, Heinz-Friedrich, "Das Collegium Medicum Augustanum," *Deutsches Ärzteblatt* 61 (1964), pp. 1239-1243.

Dietrich, Rosemarie, *Die Integration Augsburgs in den bayerischen Staat (1806-1821)*, Sigmaringen, 1993.

Duden, Barbara, *The Women Beneath the Skin: A Doctor's Patients in Eighteenth-Century Germany*. Cambridge, MA, 1991.

Ecker-Offenhäußer, Ute, 'Pest, Frantzosen, Scharbock': Krankheitserfahrung und medizinischer Alltag des 17. Jahrhunderts im Spiegel der Werke des Augsburg Wundarztes Joseph Schmid. M.A. thesis, University of Augsburg 1994

François, Etienne, 'Augsburger Freiheit und preußische Tyrannei. Montesquies Reisetagebuch durch Deutschland 1729', in, *Geschichte in Räumen: Festschrift für Rolf Kießling*, ed. by Johannes Burkhardt, Thomas Max Safley, and Sabine Ullmann. Constance, 2006, pp. 73-81.

—, Die unsichtbare Grenze. Protestanten und Katholiken in Augsburg 1648-1806. Sigmaringen, 1991.

Gasser, Achilles Pirmin, Unterricht Wieder die Pestlilenz, Augsburg, 1565.

Gensthaler, Gerhard. Das Medizinalwesen der Freien Reichsstadt Augsburg bis zum 16. Jahrhundert mit Berücksichtigung der ersten Pharmakopöe von 1564 und ihren weiteren Ausgaben. Augsburg, 1973.

Hammond, Mitchell Love, *The Origins of Civic Health Care in Early Modern Germany*, Ph.D. diss., University of Virginia, 2000.

—, "Paracelsus and the Boundaries of Medicine in Early Modern Augsburg," in *Paracelsian Moment*, ed. by Gerhild Scholz Williams and Charles Gunnoe. Kirksville, 2002, pp. 19-33. Hoffmann, Robert, "Die Augsburger Bäder und das Handwerk der Bader," *Zeitschrift des Historischen Vereins für Schwaben und Neuburg* 6 (1875), pp. 1-33.

Horanin, Mariusz, *Die Pest im frühneuzeitlichen Augsburg. Soziale Konstruktion einer Krankheit.* Diss. University of Göttingen, 2003.

Hutten, Ulrich von, Von der wunderbarlichen artzney des holtz Guaiacum genant, und wie man die Frantzosen oder blattern heilen sol. Augsburg, 1519.

Jones, Colin, and Laurence Brockliss, *The Medical World of Early Modern France*. Cambridge, 1997. Jütte, Robert, *Obrigkeitliche Armenfürsorge in deutschen Reichsstädten der frühen Neuzeit*.

Städtisches Armenwesen in Frankfurt a. M. und Köln. Cologne and Vienna, 1984

—, Ärzte, Heiler und Patienten: medizinischer Alltag in der frühen Neuzeit. Munich, 1991.

Kießling, Rolf, Bürgerliche Gesellschaft und Kirche in Augsburg im Spätmittelalter: Ein Beitrag zur Strukturanalyse der oberdeutschen Reichsstadt, Augsburg, 1971.

Kusukawa, Sachiko, "'Aspectio divinorum operum': Melanchton and Astrology for Lutheran Medics," in *Medicine and the Reformation*, ed. by Ole Peter Grell and Andrew Cunningham. London and New York, 1993, pp. 33-56.

Labouvie, Eva, *In anderen Umständen: Eine Kulturgeschichte der Geburt*, Cologne et al., 2000. Lengle, Peter, "Das Augsburger Heilig-Geist-Spital," in *Herrschaft und Politik*, Augsburg, 2003, pp. 206-215.

Lindemann, Mary, *Health & Healing in Eighteenth-Century Germany*. Baltimore and London, 1996.

——, *Medicine and Society in Early Modern Europe*. Cambridge, 1999.

Möller, Carmen, Medizinalpolizei: Die Theorie des staatlichen Gesundheitswesens im 18. und 19. Jahrhundert. Frankfurt, 2005.

Ludyga, Hannes, Obrigkeitliche Armenfürsorge im deutschen Reich vom Beginn der Frühen Neuzeit bis zum Ende des Dreißigjährigen Krieges (1495–1648). Berlin, 2010.

Martz, Elisabeth, *Gesundheitswesen und Ärzte in Augsburg im 16. Jahrhundert.* Med. diss., University of Munich, 1950.

Mauer, Benedikt, 'Gemein Geschrey' und 'teglich Reden'. Georg Kölderer – ein Augsburger Chronist des konfessionellen Zeitalters. Augsburg, 2001.

Montesquieu, Charles-Louis de Secondat Baron de la Brède et de, *Meine Reisen in Deutschland 1728-1729*, transl. Hans W. Schumacher, ed. Jürgen Overhoff. Stuttgart, 2014.

Pfeifer, Klaus, Medizin in der Goethezeit: Christoph Wilhelm Hufeland und die Heilkunst des 18. Jahrhunderts. Cologne et al., 2000.

Pfeufer, Eberhard (ed.), Von der Natur fasziniert ... Frühe Augsburger Naturforscher und ihre Bilder. Augsburg, 2003. Probst, Christian, "Die Reform des Medizinalwesens in Bayern zwischen 1799 und 1808," in Reformen im rheinbündischen Deutschland, ed. Eberhard Weis. Munich, 1984, pp. 195-212. —, "Das Medizinalwesen in Bayern im frühen 19. Jahrhundert," in Rainer A. Müller, Aufbruch ins Industriezeitalter 2: Aufsätze zur Wirtschafts- und Sozialgeschichte Bayerns von 1750–1850, Munich, 1985, pp. 479-491 —, Fahrende Heiler und Heilmittelhändler: Medizin von Markplatz und Landstraße. Rosenheim, 1992. Reike, Siegfried, Das deutsche Spitalwesen und sein Recht im Mittelalter, 2 vols. [1932]. Repr. Amsterdam, 1970. Reill, Peter H., Vitalizing Nature in the Enlightenment. Berkeley et al., 2005. Salzbrunn, Ingeborg, "Das Ende des Augsburger Collegium Medicum," Bayerisches Ärzteblatt 28 (1973), pp. 156-162. Schmid, Joseph, Kurtzer iedoch Gewisser bericht, dreyer Erblicher kranckheiten, alß da sein Pest, Frantzosen, und Scharbock, wie sie mögen curiert werden (...). Augsburg, 1667. Seida und Landensberg, Franz Eugen von, Historisch-statistische Beschreibung aller Kirchen-, Schul-, Erziehungs-, und Wohltätigkeitsanstalten in Augsburg. Von ihren Ursprüngen an bis auf die neuesten Zeiten, 2 vols., Augsburg and Leipzig, 1812. Seidl, Edith, "Der katholische Arzt Joseph von Ahorner (1765–1839)," in Carl A. Hoffmann and Rolf Kießling, eds., Die Integration in den modernen Staat. Constance, 2007, pp. 181–200. Siemer, Stefan, Geselligkeit und Methode. Naturschichtliches Sammeln im 18. Jahrhundert. Mainz, 2004 Siraisi, Nancy C., Medieval and Early Renaissance Medicine: Introduction to Knowledge and Practice. Chicago, 1990. —, "Disease and Symptoms as Problematics Concepts in Renaissance Medicine," in Eckhard Kessler and Ian Maclean, eds., Res et Verba in the Renaissance. Wiesbaden, 2002, pp. 217-240. Stein, Claudia, "Johann Anton von Wolter (1711-1778): A Bavarian Court Physician between Aufklärung and Reform," in Medicine and Religion in Enlightenment Europe, ed. by Ole Peter Grell and Andrew Cunningham, Farnham, 2007, pp. 173-193. —, "'Getting' the Pox: Reflections by an Historian on How to Write the History of Early Modern

Stuart, Kathy, *Defiled Trades and Social Outcasts: Honor and Ritual Pollution in Early Modern Germany*. Cambridge, 1999.

Disease," Nordic Journal of Science and Technology Studies 2,1 (2014), pp. 53-60.

—, French Pox.

Sudhoff, Karl, "Was geschah mit den (nach erneuter Schau) als leprafrei erklärten und aus den Leprosorien wieder Freigelassenen von behördlicher Seite," *Archiv für Geschichte der Medizin* 6 (1912), pp. 149-154.

Trompeter, Johannes, *Das Augsburger Pilgerhaus*. M.A. thesis, University of Augsburg 1997. Voch, Lucas, *Bürgerliche Baukunst. Zweyter Theil, worinnen von Hospitälern, Lazarethen, Waysen-, Armen- und Findlingshäusern, wie auch von einer besonderen Anlage eines Tollhauses gehandelt wird* (...), Augsburg, 1781.

Weeks, Andrew, *Paracelsus: Speculative Theory and the Crisis of Early Modern Reformation*. Albany, 1997.