



“LET US, THEREFORE, STIMULATE ONE ANOTHER”: JOHN FOTHERGILL’S LETTERS AND THE NOTION OF VALUE AND PROFESSIONALISM

Marcel Hartwig

University of Siegen

Around the middle of the eighteenth century, the London Quaker John Fothergill, M.D., established himself as an essential node in a transatlantic epistolary network. Via letter writing, Fothergill closed book deals, forwarded anatomical drawings, and exchanged botanical seeds and investment schemes that eventually culminated in the financial politics of the first North American hospital, the Pennsylvania Hospital in Philadelphia. He also provided books for the Hospital’s first Medical Library and made suggestions for people to be employed and teaching tools to be used in the first anatomical lectures in Philadelphia. Fothergill’s network sheds much needed light on transatlantic trade and the circulation and commercialization of medical print media in North America’s first regulated medical institutions. The many letters that he wrote provide insights into practices of knowledge production in these institutions. In this article, Fothergill’s epistolary web is represented as a semi-institutionalized network showing colonial medical practice to have been linked to semi-institutionalized spaces that were themselves connected to custodians of knowledge but also functioned as social networks. I argue that such networks were user-based and community-driven, and that they relied on a semi-authoritarian dispersion of knowledge.

Keywords: eighteenth-century America, letters, networks, history of medicine, history of science, the Pennsylvania Hospital, the Enlightenment.

In 1765 the English apothecary John Fothergill Jr. published his *Considerations Relative to the North American Colonies*. He never visited any of the thirteen North American colonies during his lifetime, but his little book provides an unexpected agenda and a well-informed view of the spatial, political, and economic situation in them. One might even see him as the first cosmopolitan thinker, who attempted to bridge the numerous gaps between the two opposite coasts of the Atlantic. His *Considerations* conclude with a proposition that, at least from a contemporary perspective, highlights his awareness of global connectivity and transnational flows. Moreover, it points to the existence of what Wendy Hesford and Eileen E. Schell would label as “networks and relations across cultural groups” (465). In thinking about how to build bridges between American and British higher education, Fothergill conceived the following agenda:

If we promote scholarships for Americans in our [British] universities; give posts and benefits in America to such Americans who have studied here [in Great Britain], preferably to others; if the government permits such youth as come to Europe, on account of their studies, to come over in the king’s ships *gratis*, we shall still unite them more firmly. The Americans, by mixing with our own youth at the University, will diffuse a spirit of enquiry after America and

CORRESPONDENCE: Dr Marcel Hartwig, Philosophische Fakultät, Universität Siegen, Adolf-Reichwein-Str. 2, AR-IF 116, D-57068 Siegen, Germany. @ hartwig@anglistik.uni-siegen.de

its affairs; they will cement friendships on both sides [of the Atlantic], which will be of more lasting benefit to both countries, than all the armies that Britain can send thither. (416)

The London resident wrote these lines at a time when the Stamp Act of 1765 was stirring an ever-increasing number of armed protests against the new taxes that the British had levied upon American colonists. This is a sentiment from which the “good Doctor,” as Benjamin Franklin called him (Kelsey 2), never deviated in his epistolary communication with members of the Society of Friends across the Atlantic. In 1774, in a letter to the topographer and historian Edward Ironside, he remarked:

I must in the first place inform my Friend, that I have been on the side of America from the time the Stamp Act was first proposed, and have therefore beheld with much anxiety the subsequent measures of administration, which have brought us to the brink of a Gulph (sic!), which without the most consummate prudence and the interposition of Providence will swallow up the honour, wealth, power, and consequence of the British (sic!) Empire irrevocably. (Kelsey 3)

Fothergill’s fascination with the colonies was due to the international work of his father, who represented the Society of Friends on three visits to Maryland, Virginia, and Pennsylvania, undertaken in the early eighteenth century (Corner 77). This article will focus on Pennsylvania, and in the course of our analysis, special attention will be paid to Fothergill’s understanding of “valuable” investments.

As a “Quaker colony” (cf. Barbour and Frost 6), Pennsylvania is now thought to have been a hotbed of international knowledge production and the site of early institutions that are now regarded as the predecessors of modern medicine, such as the Pennsylvania General Hospital, the first American School of Medicine, and the first American Medical Library. This microstudy intends to present the Medical Library as a transnational contact zone. From this point of view, the Library’s space can be read as the site of institutionalized power that aimed at categorizing and classifying medical knowledge in that it allowed for an authoritative collection area that displayed select items to interpellate select individuals through a channelled and supervised deployment of knowledge. By synchronically tracing a small selection of both Fothergill’s pen pals and, in one particular case, their publications, I hope to elucidate the nexus between Quaker networks and the appropriation of folk medical knowledge. My aim is to show the intellectual work and the practices of knowledge production that were involved in institutionalizing a knowledge network of “professional”¹ medicine that by the end of the eighteenth century had paved the way for the success of rationalized pathological medicine in the Western hemisphere.²

In order to work on this specific subject, I first need to establish the context in which the transference and production of knowledge occurred. Two developments from a time briefly preceding Fothergill’s *Considerations* – one in medical knowledge and another in the form and organization of the medical market – contributed to the emergence of new theories about the nature and causes of particular diseases and, accordingly, their prevention and treatment. Fothergill’s work as a physician and consultant to the Philadelphia Yearly Meeting of the Society of Friends was framed by the geographical advantage of colonial medicine, in which the learned traditions and scientific investigation methods from the “old” world were enhanced by the local bazaars and folklore of the colonies. Surgeons and military physicians, such as most of Fothergill’s pen pals, “were part of a new discipline regime that aimed to protect their employers’ human capital and improve its productivity” (Harrison 5). In the eighteenth century, it was a

¹ The category “professional” is problematized in the present article insofar as the designation of the term implies a negotiation between use-knowledge and use-value. It is unclear how value was assessed in the context under consideration in this text. On the other hand, the category of usefulness seems to have been strictly bound to the creation of close-knit, regulated and utilitarian institutions. Interestingly, these concepts seem not to have been linked to national space; in this article they are discussed in the context of private networks that defied national boundaries and strove for a sort of universal status based on a consensual perception of their own “usefulness.” The question would be for whom or what they were “useful.”

² The term “professional” is an anachronism here and can only be applied in retrospect. It would not have been used by the historical figures under consideration in this article. However, this text tries to provide a genealogy of the term and for this reason “professional” will be placed in quotation marks throughout.

common circumstance that British doctors such as John Fothergill, military surgeons and apothecaries, who accompanied British troops soon established their own networks for sharing newly gathered information that they considered useful for maintaining the health of military personnel. In the meantime, the *Philosophical Transactions of the Royal Society* became an important institution to invite, collect, peer-review, publish, and circulate the findings of doctors who worked abroad.

Three factors were of particular importance in this context:

- (i) Medical practitioners acquired knowledge of new diseases and fevers in the colonial environments in which they worked (one may think, for example, of yellow fever and its long-lasting impact on the health of people living in the colonies);
- (ii) Access to dead bodies for dissection was less constrained in the colonies than in Britain (cf. Harrison 4); besides, there was an abundance of such material in times of colonial warfare;
- (iii) The geographical specifics sparked a new interest in the influence of weather and climate conditions on diseases.

In short, the insights gathered in the colonies triggered a change in conceptions of the human body. Internal factors, such as wrong diet, immoral behaviour, and disregard of proper sanitary conditions, were no longer considered as the only reasons for a particular disease. Owing very much to Newton's classical mechanics, the body was now seen as a more pneumatic or mechanical entity that directly responded to external conditions. Thus, in the book that I am going to discuss shortly, the contagious and lethal effects of dysentery and tropical fevers are usually attributed to weather conditions in the colonies. The tendency to provide medical treatment for sick soldiers, while they were on the battlefield, rather than to replace them with new troops, suggested the emergence of a new conception of military health that reflected the utilitarian tendencies of a medical market relying on a fiduciary rather than an authoritative relationship between doctors and patients. Thus, instead of having sick soldiers removed from the military camps, they were now to be treated and restored within those camps. Such an arrangement suggests the "centrality of economic considerations to military medical reform" and thus the direct influence of utilitarian thinking with regard to general medical treatment as has been so common in "nearly all the military and naval medical works of the eighteenth century" (Harrison 17).

Resulting from a tradition in which the rise of colonial empires affected the early modern taxonomy of knowledge according to which experience and wisdom no longer validated the production of truth, medical work in Europe and the colonies reshaped the ideological framework in which medical staff operated. The roots of early modern medical sciences lay in the distinction between *theorica* and *practica*, that is, conversation about a particular disease and the application of truths (cf. Dear 393). Two schools of thought maintained this distinction and were part of the modernization of medical thought: the non-utilitarian school of natural philosophy with its epistemological traditions and the utilitarian school of natural philosophy that was "geared toward the production of practical effects" (Dear 397). Two theories of the latter school, the miasma theory of Thomas Sydenham and Herman Boerhaave's theory of diseases as resulting from an imbalance of natural activities, advanced, in the early eighteenth century, a mechanical conception of the body that seems to have been very much taken for granted in the book under consideration in this microstudy. Indeed, medical practitioners in the colonies experiencing tropical climatic conditions and studying some of the fevers that they caused preferred Boerhaave's approach, his hydraulic model of the human body in particular. Added to this interest was the newly found necessity of empirical work that allowed for the production of truths about diseases and their cures, particularly based on local practices and new commercial goods found in the colonies. Colonial powers such as Spain and England established institutions, the *Casa de la Contratación* in Spain and the colonial offices in England, that controlled and developed empirical practices supporting the seizure of natural goods from the colonies (cf. Barrera 164). In these regimes for the production of new knowledge, strategies for the collection, systematization, archiving, and channelled dissemination of authoritative knowledge accumulated. It is in light of these developments that I will focus next on the practice of John Fothergill's letter writing and publication requests that are formative for the enunciative possibilities of "professional" medicine in the North American colonies.

According to G. S. Rousseau, "Fothergill ... was the linchpin of the medical community in England, [and] [h]is great strengths as a physician were practical and empirical: he was restrained in the use

of the lancet, and he listened to and watched his patients” (53 – 4). In 1748, his book *An Account of the Sore Throat Attended with Ulcers* made him famous far beyond the kingdom’s borders. It was widely read and went through a plethora of editions. As a consequence, “his advice was sought in writing by practitioners in more distant parts, in the British colonies, and other countries” (Fox 20). An avid reader and writer, Fothergill kept his relations with former study colleagues from his circles at Edinburgh University and the Royal Medical Society of Edinburgh. Foremost among them was Dr Georgius Cleghorn, an appointed surgeon in the 22nd Regiment of Foot stationed in Minorca. Both communicated in fluent Latin and, in light of Sydenham’s *Observationes Medicae*, shared an interest in the nexus between meteorological observations and medical therapy. Fothergill passed on books for Cleghorn’s library abroad and repeatedly encouraged him to write up his observations of the Minorcan climate and the fever epidemics on the island. Upon Cleghorn’s return to England in 1750, Fothergill invited him to his home and eventually financed the publication of his *Observations on the Epidemical Diseases of Minorca from the Year 1744 to 1749*. The book ran in five editions and was even translated into German (Fox 20).

Cleghorn’s study is of particular interest as it illustrates the codified relations between a native herbal therapy for dysentery and fevers and the author as the bearer of truth. He writes on pleurisy:

To ease the pains in the breast the large leaves of opuntia, toasted in an oven, and split through the middle, were frequently applied: these being thick and succulent, retain the heat a long time, and produce all the good effects that attend anodyne emollient cataplasms and fomentations; as I have frequently experienced in tertian fevers, dysenteries, and other diseases with inflamed bowels, as well as in this disease, since I first learned the virtues of the leaves from the natives of Minorca. (169)

The opuntia, or Indian fig, is a significant natural good in this passage. Earlier Cleghorn introduced the fruit by likening it to “fruits common in England” (11) and by stressing the economic availability of the fig tree as one “which not only produces large quantities of excellent fruit (some kinds of it, two crops in a year) but affords a convenient shade” (12), thus making it attractive as a commercial commodity. In the above quote, opuntia is applied as a compress to cure fevers. In order to construct opuntia’s value as a credible healing plant, however, Cleghorn stresses his experience through the method of observation and establishes his credibility through his direct access to the natives of Minorca. Folk healers are thus granted authority and knowledge, but at the same time, this position is seized by Cleghorn as an even more authoritative observer and interpreter of the native tongue and native practices. He produces knowledge about the economic and medical value of a colonial natural good and defines its value in economic terms for the western medical market. Simultaneously, the superiority and authority of the English surgeon’s knowledge is sustained by his repeated condescension to the natives’ rampant superstitions: “In the opinion of the natives no diseases are more frequent here than witchcraft, charms, and evil spirits. Those nevertheless, I shall entirely omit, having neither leisure nor inclination to enlarge upon the craft of the clergy, and the credulity of their flocks” (40). Brought into circulation with Fothergill’s financial aid and his encouragement, Cleghorn’s study allowed for *a priori* knowledge by contrast to other western writers, but more importantly, a representation of the superiority of empirical natural history over folk medicine.

In his letters to friends, his siblings, and esteemed colleagues, Fothergill pointed out his fruitful relationship with Dr Cleghorn. This is what he wrote to Dr Charles Alston of the University of Edinburgh in April 1750:

I take the opportunity of the bearer’s return to Edinburgh to send a few packets of seeds which I received from my friend and fellow-student, G. Cleghorn. They were collected in Minorca the season before the last, and seem to be still in good condition. I should have sent them earlier in the spring, but waited for a proper opportunity which did not occur until the present. Those

which have Indig. wrote upon them are indigenous to Minorca, the rest are brought from other places and cultivated there for use or pleasure. (Corner and Booth 135)

Significantly, Fothergill distinguishes between goods that are of value for his profession and those that merely afford pleasure. It appears that the “exotic” goods are of particular importance insofar as they are directly connected to the context of their origin. So whatever future empirical observation will be gathered from these seeds would be directly connected to their immediate environment. As a locality Minorca influences the ways in which these plants will be “recorded, understood, and exchanged” (Marples). Besides, the island frames a transnational understanding of what is to be, in this case, a horticultural notion of progress: the proper names of the respective plants seem to be irrelevant, it is merely their indigenous nature that renders them economically valuable. As they come from one of the colonies and are securely placed, through this epistolary exchange, in the hands of “educated experts,” their assessment and further circulation are linked to the perceived success of the colonial project and the quality pedigree of a professional medical education at one of Europe’s centres of excellence, such as Leiden, Edinburgh, or Paris. When the medical and horticultural “professionals” frame their empirical observations in this way, they provide the kind of trust value for the plants that would filter out any “hybrid knowledge” (Marples) of non-white individuals from the colonies.

Besides, Fothergill repeatedly stresses his contribution to the publication of Cleghorn’s book, while adding, at the same time, to what we may describe as his fellow surgeon’s *market value* by attributing Cleghorn’s output not to his achievements but rather to the custodians of his “professional” education. This is borne out by the quote below which comes from a letter he wrote to William Cuming:

I had fully intended to have sent a copy of our Friend George Cleghorn’s *Epidemics of Minorca* to C. Hitch last night, but some unexpected avocations prevented it. He has been in town several months, very busy in compiling this account. We perused it together, and I have had a considerable share in correcting the press. I must say nothing of the performance itself. I send it with his service, as a compliment from our Friend. He has been attending Hunter’s course with the assiduity of a young anatomist, and is now working upon Smellie, with no less application. He is the same cheerfully industrious, plodding mortal as usual, and is laying up a fund of knowledge which I hope he will soon find a proper place to employ, with honor to himself and advantage to others. The regiment is in Ireland. He proposes to fix at Dublin, and if he sees the coast clear and things easy, to teach anatomy at that place. (Corner and Booth 144)

Cleghorn’s professional competence is thus represented as a function of his attendance of the courses of the renowned anatomists and obstetricians John Hunter and William Smellie. Personal value is thus assessed in terms of the context(s) in which a particular individual has acquired his professional training. This frames the understanding of Cleghorn’s work even before its completion and publication. My point here is that in Fothergill’s letters one can find a fiduciary relationship in place in which the “good doctor” acts as the grantor, who creates a trust, and in his letters to “professionals” in England and in the colonies, calls for trustees to hold the title to an asset (be it seeds, a publication, or a colleague whom he endorses) for the benefit of the “profession.”

Cleghorn’s work matters insofar as it would be among the first holdings on the shelves of the Medical Library of the Pennsylvania Hospital (Pennsylvania Hospital 20-1) and would therefore enable and constitute, but also constrain the constructions of the medical knowledge of the physicians and students seeking access to the institution. Significantly, it is again on account of Fothergill’s epistolary discipline, privilege based on parentage (the precedent of his father’s contacts with the North American colonies), and accumulated wealth that his funded research projects found their way to Philadelphia. Because of his father’s earlier travels to the North American colonies, Fothergill represented the Society of Friends as its official correspondent in London. In that capacity, he was in close correspondence with the acclaimed horticulturist John Bartram, who provided him with rare seeds for his herbal garden in Surrey. Bartram was also an original member of the American Philosophical Society, the first learned

society in the North American colonies. Functioning as a patent office, national academy of science, and national library and museum, the Society held a pivotal position in governing what was said or unsaid and recorded or unrecorded in emergent American scientific discourses. Another founding member, Benjamin Franklin, would also become Fothergill's pen pal. It is in a conversation with Franklin that Fothergill was able to get involved in what would become "his dearest project" (Corner 78), to be implemented through writing and designing from afar: the Pennsylvania Hospital.

Dr Thomas Bond, yet another friend from Fothergill's student days, founded the Pennsylvania Hospital in 1751. This decision was supported by Benjamin Franklin, who was the magistrate of the Pennsylvania Almshouse, the intended location of the Hospital, in 1753. The building was eventually commissioned in 1755. By that time, it had already become an established tradition for practising physicians to give lectures in obstetrics at the Almshouse. A close connection with the College of Philadelphia was additionally fostered by the commissioning of both an anatomical theatre and the Medical Library. As Fothergill received medical students from the colonies in his home (see Shryock 18),³ he was able to maintain his correspondence with the intelligentsia of the colonies. In 1762, he sent a small parcel to the offices of the Pennsylvania Hospital in Philadelphia, which contained a textbook, some anatomical drawings as well as three anatomical plaster casts. Fothergill proposed this shipment as "a present to the Hospital of some intrinsic value" (quoted in Fox 367), which arrived conveniently on time for the opening of the Medical Library, attached to the Hospital. The Library, as already remarked, was the first of its kind in the North American colonies. The book sent by Fothergill was the *Experimental History of the Materia Medica* by William Lewis. It was not only the first book to be included in the collection of the Medical Library but would also become a significant resource for Dr William Shippen's students,⁴ as would the anatomical plaster casts that were also sent over.

The package was delivered by Shippen himself upon his return from his studies in England. The enclosed note by Fothergill describes him as an excellent practising physician and scholar of natural history and suggests that he would be an asset to the Pennsylvania Hospital. Fothergill also mentions "an able assistant" to Shippen (quoted in Fox 367). The reference is to Dr John Morgan, who would found the Pennsylvania School of Medicine in 1765. Modelled on the University of Edinburgh, this School advocated bedside training and thus worked in close cooperation with the Pennsylvania Hospital. It would seem that Fothergill supported the introduction and application of European utilitarian medicine in Philadelphia and thus the foundation of the profession. Not only did the English apothecary propose Shippen as a lecturer for anatomy, but he also provided European textbooks, anatomical maps, and plastercasts. By idealizing the human body in anatomical maps and plates, the materials he sent illustrate a more homogenized understanding of human individuals. Nevertheless, by establishing a learned tradition and introducing educational material and educated staff from Europe, Fothergill's work added to a sense of professionalization of medicine in Philadelphia:

Whether practical or theoretical, European training translated to vastly increased credibility in Philadelphia. Even in 1762, the young William Shippen lectured on anatomy before an amphitheater packed with auditors whose age and experience far outstripped Shippen's twenty-six years. The famed brothers [William and John] Hunter contributed to the content of his lecture. Fothergill contributed the anatomical plates he used to illustrate his arguments. The prestige of Europe gave a young man something to teach his elders. (Finger 39 – 40)

³ The reference is to the institutionalized "professionalization" of American physicians. In large numbers they travelled to Edinburgh or London. Having arrived in either of these "medical centres," they intended to study medicine and then (most often) returned to the colonies as "first-class medical men" (cf. Shryock 18 – 19).

⁴ William Shippen, Jr. was a successful medical student in London and Edinburgh, where he came under the patronage of John Fothergill. While in Europe, he became a fellow of the Royal College of Physicians. Upon Fothergill's recommendation, he was the first to systematically lecture on anatomy in Philadelphia. He also specialized in the fields of obstetrics and surgery. During the Revolutionary War, he became Director of the medical services of the Continental Army but due to harsh criticism about his incompetence he was "court-martialled" in the late 1770s (Bell, Jr. 218).

It has been demonstrated by other scholars that the anatomical studies based on William Harvey's insights into the body's circulatory system, which Shippen, Morgan, and Bond discussed in their lectures and went on to develop further in their medical work, had already influenced the perception of systems beyond the medical realm. For example, "theorists like William Paterson likewise imagined the economy as a closed body-system where wealth could be circulated and re-circulated" (Landers and Muñoz 3).⁵ Hence, the opportunities for researching and mastering the physical conditions of the human body went hand in hand with improving and exploiting the workforce of human capital in the market economy. This ties in well with Fothergill's financial support of the Pennsylvania Hospital and the medical school. As an official manager of the Hospital, he sent funds, had a say in the management of its human resources and provided advice on the handling of its real estate funds and venture capital trust:

Permit me just to mention what has sometimes occurred to my thoughts respecting the disposition of the money. I would by no means be thought to dictate in the least. Would it not be proper to vest £6000 or £7000 in proper securities, land or otherwise, towards the constant support of the house and employ the residue according to the present exigencies? (Fothergill to James Pemberton, quoted in Fox 374)

In addition to the established tradition of discrediting folk medical conventions in the "professional" writings of colonial surgeons that formed the knowledge basis of the first medical library in Philadelphia, the same writings provide ample evidence of the impact of the epistemological traditions of a utilitarian natural philosophical school.⁶

Lastly, Fothergill also opened his doors to another notable historical character in the American medical tradition of the 1760s. When Benjamin Rush studied in England, Fothergill and his wife invited him frequently to their house for meals. It is therefore not surprising that Fothergill went on to recommend Rush, in his letters to Bond, as yet another suitable candidate for the newly established medical school in Philadelphia. Following his return to North America, Rush would become the new professor of chemistry. This means that "all four of the first faculty of the University of Pennsylvania School of Medicine, [Bond, Morgan, Shippen, and Rush], had been encouraged and advised by Dr Fothergill" (Corner and Booth 15). Today Rush is remembered as one of the "founding fathers" of the Pennsylvania School of Medicine as well as for his pioneering work in smallpox vaccination. However, when looking closely at the shelves of the Medical Library of the Pennsylvania Hospital at the beginning of the nineteenth century, we find newer editions of Cleghorn's works. All were edited by Rush and feature notes of praise and further annotations. By then these colonial medical books had become staples in the curricula of North American medical schools and libraries. By contrast to the lectures on obstetrics and anatomical studies in Philadelphia, such forms of re-publication, annotation, and re-circulation suggest a system that relies on serial repetition as a means to manifest credibility and the effectiveness of a utilitarian approach to medicine.

To conclude, as this microstudy has shown, the British colonies in North America can be "read" as a breeding ground for new theories of diseases, their causes, and ways of treating them. This development is supported by the circulation and commercialization of medical print media in the first regulated medical institutions and their practices of knowledge production. Further, this medical knowledge was spread through semi-institutionalized networks, such as Fothergill's epistolary web that propelled media change from folk medical knowledge (oral) to institutionalized ("professional") knowledge in textbook-formats. As Cleghorn's book has shown, colonial medicine re-valued folk medicine and made possible the appropriation of folk traditions in "professional" medicine. In that sense, it may be argued that colonial medical practice was linked to semi-institutionalized spaces that were connected to custodians

⁵ Later on, Paterson became one of the founders of the Bank of England.

⁶ As a mental concept utilitarianism emerged before its explicit use by intellectual pioneers such as Jeremy Bentham. As this article proposes, a similar movement could be traced in the medical discourses of the Enlightenment. Thus, it is possible to trace a line of thought which explores questions, such as what is valuable and how and why is it valuable? Fothergill's epistolary web shows that his transnational venture aimed at establishing a universal notion of "value" in medical concepts.

of knowledge but also worked as social networks: they were user-based, community-driven, and relied on a semi-authoritarian dispersion of knowledge. This microstudy has further shown, how the established medical tradition was countered by colonial medicine's reliance on then new medical theories such as those of Harvey, Boerhaave, and Sydenham. Thus, colonial medicine on the surface is to be seen as being in constant conflict with the established medical profession in Britain. However, colonial medical institutions and their ways of knowledge production penetrated established "professional" networks in the "old" world by re-appropriating their established practices of knowledge production, such as archiving, appropriating notions of financial trust, and the facilitation and management of medical schools.

Works Cited

- Barbour, Hugh and J. William Frost. *The Quakers*. Greenwood Press, 1988.
- Barrera-Osoria, Antonio. "Local Herbs, Global Medicines: Commerce, Knowledge, and Commodities in Spanish America." *Merchants and Marvels: Commerce, Science, and Art in Early Modern Europe*, edited by Pamela Smith and Paula Findlen, Routledge, 2002, pp.163 – 81.
- Bell, Jr, Whitfield J. "The Court Martial of Dr. William Shippen, Jr., 1780." *Journal of the History of Medicine and Allied Sciences*, Volume 19, no. 3, July 1964, pp. 218 – 238.
- Cleghorn, Georgius. *Observations on the Epidemical Diseases of Minorca from the Year 1744 to 1749: to which is prefixed a short account of the climate, productions, inhabitants, and endemial distempers of Minorca*. Philadelphia, PA: Printed for F. Nichols; Silliam Fry, printer, 1812.
- Corner, Betsy Cooper. "Dr. John Fothergill and the American Colonies." *Quaker History* vol. 52, no. 2, 1963, pp. 77 – 89.
- and Christopher C. Booth. *Chain of Friendship: Selected Letters of Dr. John Fothergill of London, 1735 – 1780*. Belknap P, 1971.
- Dear, Peter. "What Is the History of Science the History of? – Early Modern Roots of the Ideology of Modern Science." *Isis*, no. 96, 2005, pp. 390 – 406.
- Harrison, Mark. *Medicine in an Age of Commerce and Empire: Britain and Its Tropical Colonies, 1660-1830*. Oxford UP, 2010.
- Hesford, Wendy and Eileen E. Schell. "Configurations of Transnationality: Locating Feminist Rhetorics." *College English*, vol. 70, no. 5, 2008, pp. 461 – 70.
- Finger, Simon. "An Indissoluble Union: How the American War for Independence Transformed Philadelphia's Medical Community and Created a Public Health Establishment." *Pennsylvania History: A Journal of Mid-Atlantic Studies*, vol. 77, no. 1, Winter 2010, pp. 37 – 72.
- Fothergill, John. *The Works of John Fothergill, M.D.* Vol. 2, edited by John Coakley Lettsom, London: Printed for Charles Dilly, in the Poultry, 1783.
- Fox, R. Hingston. *Dr. John Fothergill and His Friends – Chapters in Eighteenth-Century Life*. 1919. Middletown, DE: Cornell University Library, 2015.
- Landers, Matthew and Brian Muñoz. "Introduction." *Anatomy and the Organization of Knowledge, 1500 – 1850*, edited by Matthew Landers and Brian Muñoz, Pickering & Chatto, 2012.
- Marples, Alice. "The Power of Scholarly, Commercial and Colonial Knowledge in Atlantic Botanical Networks." Paper presented at the biannual meeting of the European Early American Studies Association *Space, Mobility, and Power in Early America and the Atlantic World, 1650 – 1850*. EEASA, 2016.
- Rousseau, G.S. "Ingenious Pain: Fiction, History, Biography, and the Miraculous Eighteenth Century." *Eighteenth-Century Life*, vol. 25, no. 2, 2001, pp. 47 – 62.
- Shryock, Richard H. *Medicine and Society in America, 1660 – 1860*. Cornell UP, 1960.