B2. Scalpels, Spectacles and Iron Hands: The Early Modern Medical Marketplace at Work

B2:1 Heidi Hausse, *Wear and Tear: An Inside Look at a "Used" Sixteenth-Century Prosthetic Hand*

In 2023-2025, an interdisciplinary team of historians and mechanical engineers digitally modeled and 3D-printed an early modern mechanical hand from Kassel, Germany, to learn about its functionality through testing. In the summer of 2025, the team gave two working models to Hessen Kassel Heritage and discussed, among other things, our theory of how the artifact is held together and the movement of axles to possibly open the artifact up. For the first time, in August 2025, a conservator at the museum successfully did so. What we found with new access to the artifact's interior brings concrete (or wrought iron, as it were) evidence that the prosthesis was used, and ideas about what maintenance of the object may have looked like over time. In a period when prosthetics were not yet medicalized, this intimate look of the life of a prosthesis that brings together material culture and testing of 3D-printed models helps scholars explore an elusive dimension of early modern bodywork among amputees and artisans.

Learning Objectives

- Recognize the dynamic interrelationship between medicine and society through history
- Develop an historically formed sensitivity to the diversity of patients
- Understand the dynamic history of medical ideas and practices, their implications for patients and health care providers, and the need for lifelong learning

B2:2 Samuel Paek, *Amputations, Expertise, and the Rise of New Genres of Medical Writing in Sixteenth-Century England*

During the sixteenth century, there was a growing emphasis on "experience" across many disciplines. In medicine, this can be seen in the rise of a genre of writing called the Observationes, collections of medical case histories which detailed particular patient encounters, as well as in the increasing use of the first person, such as "I have proved" or "I have experimented." While this phenomenon was more pronounced on the continent, in England surgeons were among the first to take up the language of "experience" extensively, using the concept alongside patient cases both to advertise their skills and to teach younger surgeons. In this paper, I show how the dangers and difficulty associated with amputations necessitated the use of references to the first person and descriptions of specific patient encounters. While in William Clowes' Profitable and Necessarie Book of Observations (1596) patient case histories made up the bulk of the text, in other surgical treatises they were relatively rare, as were uses of the first-person. However, whenever they discussed amputations, surgeons turned to first-person descriptions. This finding also raises the question of whether the increasing uses of first-person references and case histories had their roots, at least in surgical treatises, in crafting early forms of practical expertise in early modern Europe.

Learning Objectives

- Recognize the dynamic interrelationship between medicine and society through history, including the roles of self-promotion, pedagogy, and expertise
- Promote tolerance for ambiguity of theories, the nature of evidence, and the evaluation of appropriate patient care
- Critically appraise clinical management from a historical perspective

B3:3 Tawrin Baker, *The Medicalization of Spectacles in the Seventeenth Century: Assisting and Curing via Mathematical Arts and Crafts*

Reading glasses were present in Europe since the thirteenth century, and spectacles for myopia were used as early as the fifteenth century. But prior to the seventeenth century, spectacles were generally ignored or discouraged by both learned medical practitioners and lower-status eye specialists. The medicalization of spectacles was a slow process, the seventeenth-century contours for which are poorly studied. One obstacle to a our understanding is the notion, within the histories of ophthalmology, medicine, and science generally, that physicians stubbornly adhered to the Galenic account of the crystalline humor as the seat of visual sensitivity, and that it was a century before medical practitioners embraced the retinal theory of vision described by Johannes Kepler in 1604.

I show that, from at least the 1630's on, medical practitioners steadily adopted the retinal theory of vision and the account of refraction within the eye that went with it. Consequently, optical remedies—namely eyeglasses for myopia, presbyopia, and other conditions—frequently appeared in seventeenth century medical treatises alongside more traditional treatments. But the medicalization of spectacles was not straightforward, and thus this paper explores the senses of "medicalization" possible given this revised intellectual history. Eyeglasses can be read as prostheses in a myriad of ways, including as an actor's category, as a Cartesian cyborg, and a narrative prosthesis in art and literature—although tensions within these readings remain. Newly constructed bridges between skilled artisans and physicians arose via the spectacle market while the lens-making professions underwent radical transformations.

<u>Learning Outcomes</u>

- Develop the capacity for critical thinking about the nature, ends and limits of medicine
- Recognize the dynamic interrelationship between medicine and society through history
- Promote tolerance for ambiguity of theories, the nature of evidence, and the evaluation of appropriate patient care, research, and education