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Prosthesis: From Grammar to Medicine in the Earliest History of the Word

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Abstract

This article provides an examination of the earliest history of the term prosthesis in English, re-evaluating other such histories with previously unrecognized archival material from early printed books. These sources include sixteenth- and seventeenth-century early printed books such as handbooks of grammar, English dictionaries, British Latin dictionaries, and medical treatises on surgery. Such an investigation reveals both a more nuanced trajectory of the early history of the word in English and fuller context for a shift in meaning from usages in the study of grammar and rhetoric to the study of medicine and surgery. This narrative, then, speaks to the growth of medical knowledge and discourse in the sixteenth and seventeenth centuries, as well as concepts about disability that remain part of disability studies even in the present field.

It may be a truism that, as cultural discourse surrounding the subject of disability attests, words and their histories matter. [1](#) Just one facet of the wide-ranging discussion, the field of Disability Studies in particular demonstrates both a deep concern with language and the need to continually negotiate the issues at stake, as is clear from the recent publication of *Keywords for Disability Studies*, edited by Rachel Adams, Benjamin Reiss, and David Serlin. [2](#) In his foundational manifesto on *Keywords: A Vocabulary of Culture and Society*, Raymond Williams demonstrates "that some important social and historical processes occur *within* language, in ways which indicate how integral the problems of meanings and of

relationships really are." [3](#) Indeed, as a forerunner for Adams, Reiss, and Serlin, Williams demonstrates the need for sustained reflections on words and cultural uses—both at specific moments and spanning the developments of discursive meanings across time. The present article presents one examination of such processes related to disability in the early lexical history of the term *prosthesis* in the English language. Investigating the history of *prosthesis* and its uses in the early modern period provides a valuable set of milestones for the history of disability and discourse surrounding prosthetics in the English language; this history also speaks to the early developments of trends still present in current discussions of this subject.

In his book *Prosthesis*, David Wills discusses early English uses of the word, claiming the year 1553 as its first attestation, followed by a 1704 dictionary entry for the addition of a body part for replacement. [4](#) This appears to be the popular narrative, since Wills's dates are often repeated in scholarship on the subject. [5](#) Yet unacknowledged evidence from the early modern period presents at once an earlier chronology for both senses of the word *prosthesis* and a more nuanced narrative for the use of the term in the sixteenth and seventeenth centuries. [6](#) The present account rests on a reevaluation of sources about *prosthesis* regarding two intersecting issues: first, the earliest uses of the word in early printed books not only in English but also in contemporary British Latin; and, second, a shift in meanings from grammatical to anatomical senses around the turn of the eighteenth century. Such a study necessitates a return to the archive of sources from the early modern period and a reflection on epistemologies of media history. Fortunately, historical sources are increasingly available due to digitization projects, especially text searching capabilities in databases like *Early English Books Online*. [7](#) By searching this archive of knowledge from the early modern period, we gain a better sense of the history of the word *prosthesis* and the emergence of its significance as a keyword in cultural discourse about disability.

This study reveals an epistemological shift surrounding the discourse about *prosthesis* in the late seventeenth century, lending a better understanding of the conceptual means by which the term took hold in English as related to disability. Wills's references to early uses provide some amount of knowledge about the adoption of *prosthesis* into English, but they fail to reveal the whole story of the emergence and solidification of the term in cultural discourse about disability around the turn of the eighteenth century. In other words, previously identified early attestations present only the background (earlier dictionary entries) and the conclusion (later dictionary entries) for the early modern lexical history of *prosthesis*, not the actual emergence of the term in early modern cultural discourse about disability. Returning to the archive of early modern books helps to fill this gap in knowledge. Newly identified sources also present a series of conceptual ideas about prosthetics that continue to persist, concerning notions like defect, loss, and lack, as well as social considerations about disability and aesthetics. In considering a keyword such as *prosthesis*, these are significant associations that deserve to be examined in their earliest manifestations in English.

This examination also presents a case for considering epistemologies and the archive of knowledge on which cultural discourse about disability rests. [8](#) If we rely on Michel Foucault's concept of the archive as a "whole mass of texts that belong to a single discursive formation," then we are forced to confront the shifting of discourse as new evidence from the past emerges. [9](#) This is a two-fold notion: first, the archive of ever-shifting sources to which we have access as scholars; and, second, how we construct and reconstruct knowledge over time within a "system of discursivity." [10](#) Indeed, this type of examination is methodologically linked to Williams's own assumptions about keywords and their histories. [11](#) While the history of the word *prosthesis* has been partly explored, several early modern sources have remained occluded, despite their usefulness for understanding details about the term's development in English. [12](#) Such Foucauldian conceptions of the archive and discourse are akin to recent questions raised in the field of media studies. [13](#) One hallmark of such work lies in exploring cultural archives for alternate histories that remain obscured, especially across the *longue durée*. The field of media studies thus facilitates the interrogation of archival media concerning disability in the past and present.

Approaches from media studies help to foreground intersections between humans and technology, as well as the ways in which bodies and embodied identities are mediated in society. We find similar attention to these ideas in the emerging interplay of theoretical perspectives in an area of inquiry that has been deemed "disability media studies." [14](#) Following the classic formulation of media by Marshall McLuhan, prosthetics may be aptly categorized among other media: *extensions* of the human, abundant with meaning as they communicate socially and culturally. [15](#) Exploring the earliest lexical history of the term *prosthesis* in English evokes aspects of the discourse of disability that persist from the age of printed books to digital cybernetics. [16](#) Media studies enables consideration of the mediated nature of bodies, impairment, disability, and the discourses surrounding them in society. Impairment and disability are, after all, mediated through social constructs, communicated orally, textually, visually, and otherwise technologically. As Elizabeth Ellcessor, Mack Hagood, and Bill Kirkpatrick emphasize, "ideas are embodied in and shaped by material conditions and human practice, made meaningful by the discourses that inform them and that they in turn inflect." [17](#) In the same way, so too does the character of archives bring to the fore the mediated nature of the discourse of disability—especially in a digital age, when our understanding of historical discourse may be reshaped because of increased access to archives. Seeking an alternative for the lexical history of *prosthesis* presents shifting media epistemologies in the early modern era and our own digital age, which nuance considerations of access to cultural discourse, to which I will return at the end of this study.

Prosthesis in Early Modern Dictionaries

As the foremost reference authority on words, etymologies, and meanings in the English language, the *Oxford English Dictionary (OED)* provides a useful starting point. [18](#) It includes three senses of the term *prosthesis* as it developed over time:

1. *Grammar*. The addition of a letter or syllable to the beginning of a word. Now *rare*.
2. a. The replacement of defective or absent parts of the body by artificial substitutes; a branch of surgery, medicine, or dentistry concerned with this; = *prosthetics* n.
- b. An artificial replacement for a part of the body. [19](#)

The present article concerns the first two senses of the word (1 and 2a), regarding the earliest attestations in the English language as well as the development of and relationships between the two senses within this lexical history. Etymologically, the word ultimately comes from the Greek *πρόσθεσις*, as it appears in some rather popular and influential classical texts. For example, Plato uses the word in a general sense of "addition" in *Phaedo*, and Aristotle uses it in a mathematical sense in *Metaphysics*. [20](#) With its adoption into classical Latin, *prosthesis* secured its position as a term for grammar and rhetoric, in the sense of a letter or syllable added to a word, and with this meaning it proliferates in a number of treatises from antiquity. [21](#) This grammatical meaning is the sense inherited from the classical world by early modern humanists.

The *OED* cites the first attestation in English for the grammatical sense 1 in Richard Sherry's 1550 *A treatise of Schemes & Tropes* (S111062), [22](#) where it appears as a printed marginal annotation next to the term and definition for *Appositio*: "the putting to, eyther of letter or sillable at the begynnyng of a worde, as: He all to bewretched hym." [23](#) Throughout this section of the treatise, titled "Figure of Diction," Sherry provides marginalia with grammatical terms exemplifying the Latin terms he defines and discusses. The annotation *Prosthesis*, then, is meant as an example of *appositio*, and a marker of the rhetorical relationship between these terms during the sixteenth century. A similar marginal note is found in Thomas Wilson's 1553 *The Arte of Rhetorique* (S111753), where it annotates a description of "Addition" in a section on "Figures of a worde." [24](#) These and similar handbooks stand as evidence that the term was a standard part of the lexicon of English grammar and rhetoric by the 1550s.

These grammatical formulations are more generally informed by the wider context of the contemporary study of grammar in early modern England, fueled by the period's new medium of print. For example, an earlier instance of the word *prosthesis* in a printed British book as a Latin word occurs twelve years earlier than Sherry's handbook, in 1538, in *The dictionary of syr Thomas Eliot knyght* (S111493). [25](#) In this Latin-English lexicon, the term is defined in similar grammatical terms as Sherry's meaning, "an addition of a lettere: as gnatus, for natus." [26](#) The significance of the term's inclusion in Elyot's *Dictionary* should not be overlooked, as the volume remains a monument in its own right—the first English book printed with the word *dictionary* in its title, and a major step forward for lexicography in both Latin and English. [27](#) Elyot also includes this word and definition in his later, enlarged second edition of 1542, under the title *Bibliotheca Eliotae: Eliotis Librarie* (S1917). [28](#) While these instances may not be considered earlier attestations in the English language than Sherry's, as strictly considered by

the *OED*, they nonetheless demonstrate the early process of the adoption into the vernacular of the term as a grammatical concept. [29](#) Appearances of *prosthesis* in Eliot's dictionaries should be considered as representatives of the bridge from Latin for the entry of the term into the English language in the sixteenth century.

When *prosthesis* first appears in an English language dictionary is not an altogether easy question to answer. The earliest instance of this term in a dictionary is in Edward Phillips's 1658 *The New World of English Words: Or, a General Dictionary* (R14781), although even this example remains an ambiguous one. [30](#) In his Preface, Phillips states that "there are not many Nations in *Europe*, some of whose words we have not made bold with, as all of us together have borrowed from the ancients in their great abundance"; in the following list, he notes that "among the ancient languages we have from the Greek not a few," and provides the example of those words constructed with prepositional suffix *pros-* (Greek *Προς*): "to, or toward, as *Prosthesis*, an adding unto." [31](#) Oddly, Phillips does not include an entry for the English term in the actual dictionary as he does with others from this list of Greek examples. [32](#) One must, therefore, look elsewhere for the first proper entry and definition of *prosthesis* in an English dictionary. Elisha Coles's 1676 *An English Dictionary* (R38819) provides the definition as "an addition to the beginning of a word." [33](#) Following earlier usages, Coles provides the grammatical sense, as in treatises like Sherry's, or in Phillips's understanding of its derivation from Greek.

Another dictionary entry and definition for *prosthesis* helps to clarify Wills's narrative (in which he claims the adoption of the word into English as a medical term in 1704) and presents some questions unanswered in his book. The entry appears in the sixth edition of Phillips's dictionary—under the slightly different title *The New World of English Words: Or, Universal English Dictionary*—revised by John Kersey and published in 1706 (T101516), not in 1704. [34](#) The dictionary provides two sense definitions:

Prosthesis, a Grammatical Figure, when a Letter or Syllable is added to the beginning of a Word, as *Gnatus* for *natus*, *tetuli* for *tuli*, &c. In Surgery, *Prosthesis* is taken for that which fills up what is wanting, as is to be seen in fistulous and hollow Ulcers, filled up with Flesh by that Art: Also the making of artificial Legs and Arms, when the natural ones are lost.

As with many entries in Phillips's dictionary in various editions, some of this language is familiar, since it is directly lifted from earlier printed sources. It is well known that Phillips often plagiarized, leading both to a sort of feud with Thomas Blount and possibly an aspect of popularity (albeit notoriety) for *The New World of English Words*. Kersey seemingly followed his predecessor's habits, since the example of the grammatical sense derives from Eliot's much earlier *Dictionary*.

More notable is the dual definition given for *prosthesis*—the first of its kind. Like Wills, the *OED* cites the revised *New World of English Words* for the first attestation of sense 2a, the medical usage of the term, but those references alone

do not do justice to the full implications of Kersey including it in this dictionary. What the definition reveals is another evolution of the word, combining both grammatical and medical usages *already current* in the first years of the eighteenth century. Wills notes that this entry into the revised *New World of English Words* "would install the medical sense of 'prosthesis' in English," [35](#) but this usage must have been familiar already in cultural discourse to warrant its inclusion. After all, words do not emerge *ex nihilo* in dictionaries; keywords come from their uses in culture, and their meanings derive from the discourses surrounding them. Considering the media history at play in the early modern period, the uses of words already present in society became newly mediated in the emergent, popular technology of printed dictionaries. The inclusion of the secondary meaning of *prosthesis* for medicine in the revised *New World of English Words*, then, raises an obvious question: What had occurred in the intervening years to create a second sense for the word *prosthesis* in English?

Prosthesis in Early Modern Medicine

Something of an answer for the question posed at the end of the previous section may be found in a case of Continental knowledge being translated and adopted into English usage in the last years of the seventeenth century. It is worth revisiting Wills's chronology, as he writes, "For the French, the medical sense of the word would come first, but not until 1695, about a decade before the rhetorical sense, which first appeared in French in 1704"; but he provides no discernible references for these instances. [36](#) In *La Trésor de la Langue Française informatisé*, [37](#) however, this first usage is attributed to Charles Gabriel le Clerc in his 1695 book *La chirurgie complete*, [38](#) which was published in English the following year as *The compleat surgeon* (R224148). [39](#) Le Clerc's book proves to be a significant missing link for the shift in English meanings of the word *prosthesis* from grammatical to medical discourse in the early modern period.

The table of contents for the English printing (like the French version) lists chapter one as "Of the Qualifications of a Surgeon, and the Art of Surgery," including sections titled "Of Synthesis, Diaeresis, Exaeresis, and Prosthesis." [40](#) The chapter, in fact, comprises a series of questions and answers about surgeons, chirurgery (or surgery), and the operations involved in this profession. In the process of outlining such subjects, the text poses the following explanation:

Prosthesis adds some Instrument or Body to supply the defect of those that are wanting; such are Artificial Legs and Arms, when the Natural ones are lost. It also furnishes us with certain Instruments to help and strengthen weak Parts, such as *Pessaries*, which retain the *Matrix* in its proper place when it is fallen, Crutches to assist feeble Persons in going, &c. [41](#)

This passage directly translates the French text of the 1696 printing of *La chirurgie complete*:

La Prothese adjoûte quelqu'instrument au corps pour suppléer au défaut des parties qui manquent, comme sont les jambes & les bras artificiels lorsqu'on a perdu les naturels. Elle adjoûte encore quelqu'instrument pour aider les parties foibles, comme sont les pessaires qui retiennent la matrice dans son lieu lors qu'elle tombe, les bequilles pour aider à marcher lors qu'on est foible, &c. [42](#)

Following the Greek meaning of the word, and the metaphorical significance attributed to it, *prosthesis* is here used as an addition (*adjoûte*), a physical technology (*quelqu'instrument*) of assistance (*pour aider*). This formulation of *prosthesis* as technology evokes the McLuhanesque notion of media as extensions of the human. Notably, this development in the meaning of the word also brings with it the characterizations (now acknowledged as problematic) of *defect* (*défait*), *wanting* (*manquent*), *loss* (*perdu*), and *weakness* (*les parties foibles*). In these characterizations, we encounter the other aspect of media, as technologies that communicate social messages embedded within them. Such discursive ideas about impairment highlight the communicative concepts embedded within prosthetic media from the early modern period onward.

Besides *prosthesis*, two of the other terms that le Clerc uses for medical procedures in this section are also grammatical expressions derived from Greek: *synthesis*, "whereby the divided Parts are re-united; as in Wounds" ("qui réünuit les parties divisées, comme sont les playes"); and *diaeresis*, "that divides and separates those Parts, which, by their Union, hinder the Cure of Diseases, such is the continuity of Abscesses or Impostumes which must be open'd to let out the purulent Matter" ("divise & separe les parties qui par leur union empesche la guerison des maladies, comme est la continuité des abcés qu'il faut ouvrir pour en tirer le pus"). [43](#) In contemporary English dictionaries, these terms are (like *prosthesis*) generally known for their rhetorical uses before this time: *synthesis* as "an agreement in sence, not in word," and *diaeresis* as "a figure whereby one syllable is divided into two" or "Division, also the mark thereof on the head of a vowel." [44](#) From the simple definitions of these terms, without full grammatical explanations, the relationships between the Greek loanwords and their applications in medical sciences seem fairly obvious. Yet le Clerc gives no explicit discussion of their origins in grammar or extended definitions; what matters most is their practical application in the field of surgical medicine. What we might infer from this tacit use of these terms without full explication is that they were already well attested in contemporary medical discourse. By the publication of le Clerc's *La chirurgie complete* in 1695, the discourse of grammar and rhetoric had been adopted into the discourse of medical knowledge, and by 1696 this meaning had found its way into the English language by way of *The compleat surgeon*. The more general cultural use of the word *prosthesis* in relation to bodily disability became mediated in the new medium of print.

Without further access to a wider range of archival sources from the early modern period, it is not fully possible to reconstruct the developments that preceded le Clerc's use of *prosthesis*. Just as increased access to the archive of early modern

English books reveals previously unidentified parts of this lexical history, the same may be true of early modern French books. It may be the case that even le Clerc is indebted to contemporary uses in medical books predating the publication of his works. What does seem clear is that le Clerc's use is indebted to the more general desire by early modern thinkers to return *ad fontes*, to the sources of ancient knowledge. This return to the archives was particularly spirited for those pursuing lexicography and medical knowledge, as they sought to create new epistemologies for cultural discourse in the age of the printed book. [45](#) This much is evident for le Clerc in the roots of the words he uses in his surgical treatise: as already noted, the terms *synthesis*, *diaeresis*, and *prosthesis* derive from Greek words concerning rhetoric. In the meanings posed for medical usage, le Clerc recalls the definitions established by etymological roots to apply their senses (combination, division, and addition) metaphorically beyond rhetoric.

Only two years after the publication of *The compleat surgeon*, medical knowledge of *prosthesis* is again attested in William Salmon's 1698 treatise *Ars Chirurgica* (R31802). [46](#) As the author indicates in his dedication, the contents of this work are "excerpted and gathered out of the Leaves of Antiquity, and the continued Observations of the Great Men and Professors of these Arts," and his book is meant as a collection of received knowledge. Salmon's terms and discussions, therefore, are not altogether original, but derive from existing practices, especially those on the Continent. [47](#) From a comparison with le Clerc's French book, and the English translation, it is clear that Salmon relies heavily on this work. In "Liber Primus. Of Instruments and Operations," chapter one concerns "Of Chirurgery in General," with an outline of subjects to follow and definitions of medical practices, all following le Clerc's scheme. Here Salmon relates, "Prosthesis teaches how to supply Parts which are wanting." [48](#) He provides the standard definition, much like le Clerc's, implying that the term is already more generally understood within the medical field.

Salmon also provides more discussion about the practice of prosthesis in his treatise, as he dedicates an entire section to it: "VI. Prosthesis," containing chapters 45-47, titled "Of a Hare-Lip," "Parts of the Head Supplied," and "Artificial Arms and Legs." [49](#) At the start of this section (chapter 45), Salmon provides a list of related terms, as well as an etymology and definition of his subject: "Πρόσθεσις, *Prosthesis*, *additio*, ἡ προσίθημι, *appono*, is that part of the Art, which teaches *how to add to, or supply Parts which are wanting*." [50](#) Here he provides a more explicit etymological focus on the word, indicating its derivation from Greek and equivalent Latin terms. Yet, curiously, like le Clerc, he makes no mention of the primary sense of the word in classical Greek or contemporary rhetorical usage in the grammatical sense. Throughout his treatise, Salmon uses *prosthesis* as an already established term, as an accepted practice in medical science. As before, the implication is that the meaning of the word is already established in medical scientific discourse, and that usage of the word has moved beyond grammatical and rhetorical handbooks.

At the beginning of chapter 47, Salmon provides further insight into his conception of prosthesis as well as the associations that the word and practice had developed

in medical works. Most often throughout his treatise, he is concerned with description, diagnosis, and procedures for aiding patients, presenting his information as practical techniques; but at the start of chapter 47 he offers a moment of reflection. He writes, "It is Necessity which investigates the Means whereby we may help and imitate Nature, and supply the Defects of Members, which are perished and lost," and he continues by describing various prosthetics "made by Ingenious Smiths, or other Artificers." [51](#) Furthermore, following his source Ambrose Parrey, Salmon claims that such devices "are not only profitable for the Necessities of the Body, but also for the Decency and Comliness thereof."

[52](#)

In all of this, Salmon echoes many of the same ideas found in le Clerc's conception, evoking notions of defect, loss, and wanting, but he also acknowledges the social dimension associated with the aesthetics of prosthesis. Indeed, as Salmon's rhetoric indicates, the "Art" of prosthesis (as he calls it in his definition) is closely linked with the imitation of Nature, with crafting technologies to accommodate the needs of the human form. Here, close to the beginning of its use in English, the term *prosthesis* for assistive technology already evokes a host of ideas that would become persistent conceptions of the word. While it is key for scholars of disability studies to oppose a "medical model" of disability, it is also impossible to dismiss the history of such rhetorical conceptions. [53](#) Knowing the full histories of cultural discourse for terms like *prosthesis* provides a clearer sense of how meanings have formed over time, and how meanings may be redirected in the future.

Conclusions

All of this evidence for the early lexical history of *prosthesis* presents intersections with contemporary historiographical and conceptual considerations of the topic. [54](#) With the evidence presented, historical dates shift slightly. For the conception of *prosthesis* with which modern Disability Studies is concerned, the significant shift in meaning takes place between grammatical senses in the middle of the sixteenth century and scientific trends just before the turn of the eighteenth century. The early attestations noted by Wills and the *OED* only reveal definitions of meanings. At the beginning of this history, we find the grammatical concept. Newly identified sources like books by le Clerc and Salmon add connotations and associations of value that continue to pervade discourse about disability.

More than a correction of dates, however, is the conceptually significant lexical evolution that these early uses demonstrate, aligning the word *prosthesis* with a notion of cultural, discursive meaning that rests at the start of this history and continues to the present. From our own vantage point, the rhetorical concept is not altogether lost in contemporary, twenty-first-century usage in the discourse of disability studies, "in which formal identities, thematic continuities, translations of concepts, and polemical interchanges may be deployed." [55](#) Indeed, as the titles of various modern books on disability studies indicate, deep notions of language tied to *prosthesis* are still inherent, as scholars consider it alongside keywords like

narrative, discourse, rhetoric, and keywords that all relate to cultural utterance. [56](#) Despite common tendencies to consider *prosthesis* in terms of corporeality, the word still retains implicit discursive associations from its earliest attestations in the English language during the late seventeenth century. Our present age of digital media, with discourse shifting to point out that "All Technology Is Assistive," [57](#) may seem quite distant from early attestations of *prosthesis* and their invocations of defect, loss, and lack. And yet, regardless of dates, Jay Timothy Dolmage notes how "this history reveals the ways that prosthesis fuses linguistic and corporeal supplementarity in our embodiment, as beings with a grammar and biology, an idiom and anatomy, overlapping both in something material and much that is ineffable." [58](#)

The alternative lexical history discussed in this article also raises media-related epistemological concerns about yet another keyword closely associated with rhetoric about disability: access. [59](#) This study fills in gaps for the narrative about the emergence of *prosthesis* in English, but it is not meant as an indictment of Wills's work. Instead, it is meant to point toward the alternative media histories still to be told because key sources remain hidden in archives. At the same time, the present study also points toward epistemological concerns about these archives, especially about access to primary sources in the digital age. It should not be overlooked that methods for returning to original sources for this study are only made possible through access to the digital collection of early modern books in *EEBO*. Access to this commercial database is not open to all; it is limited to paying, registered users, or, in the case of institutional subscriptions, users within the same organization. Knowledge is not free. (Of course, all this is also true of the online version of the *OED*.) We might recall scholarly frustration in October 2015 when ProQuest canceled the group subscription to *EEBO* for members of the Renaissance Society of America. [60](#) As Wolfgang Ernst observes, "Different media systems, from library catalogs to microfilming, have influenced the content as well as the understanding of the historical remains of the archive itself." [61](#) Influences also come from the organizations that hold control of knowledge in the digital age through the creation and curation of archives. Studies of such media, past and present, necessarily raise issues of power associated with digital archives and access to them.

The early modern period was a dynamic period for shifting epistemologies and technologies, manifested through projects of categorization and reevaluation like dictionaries and medical manuals. All of this was fueled by the development and rise of print as a new medium for knowledge. [62](#) Seeking new categories and terms for the discourse of disability was part of these enterprises, as seen in the sources of this study. The same age brought about the necessity of navigating new terms of intellectual property, as the information commons was steadily closed off through the sixteenth and seventeenth centuries. [63](#) In our own digital age, we face similar issues of returning *ad fontes*, or to the sources, to understand the histories reflected in them, and to mediate them from the past to the present. With the help of media studies, there are clear associations between early modern book culture and contemporary digital culture—and their attendant notions about knowledge

curation. Part of dealing with such shifts means returning to archived media to reevaluate previously established historical narratives. And part of dealing with such shifts means navigating new terms for intellectual property and new prospects for the information commons. The previous narrative does not represent the full story of the emergence of the term *prosthesis* in English, along with its connotations for the history of disability. Digital tools certainly aid in this work, but we must also consider the wider implications of how accessible these tools are when we approach the archive of the past.

While a reevaluation of the lexical history of *prosthesis* delves into philological inquiry at its most basic approach, the implications are much wider ranging. In *Keywords for Disability Studies*, Adams, Reiss, and Serlin pose the value of reconsidering terms common to the field, highlighting the need for "attempts to revisit the categories, concepts, and assumptions that define disability and the experiences of people with disabilities more broadly"; and they demonstrate the need to "question fundamental terms and concepts that may seem settled in order to understand how and why they were used in the first place and how they might evolve in the future." ⁶⁴ As we know from the work of cultural and media critics, the deeper issues at play are questions of cultural discourse, and who controls that discourse. Returning *ad fontes* necessitates confronting untold narratives held within archives, the roots of language that continue to haunt our discourse, and the questions posed by shifts in media epistemologies across the *longue durée*.

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Endnotes

1. Among the many studies that take on this issue directly, including references in the following notes, see esp. Shawn Burns, "Words Matter: Journalists, Educators, Media Guidelines and Representation of Disability," *Asia Pacific Media Educator* 20 (2010): 277-84; and the cluster of essays on "Disability and Language" (ed. Petra Kuppers) in *Profession*, no issue (2010): 107-30.
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2. *Keywords for Disability Studies*, ed. Rachel Adams, Benjamin Reiss, and David Serlin (New York: New York University Press, 2015).
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3. *Keywords: A Vocabulary of Culture and Society*, rev. ed. (Oxford: Oxford University Press, 1983), 22; see discussion of Williams's work (and partial quotation of this passage) by Rachel Adams, Benjamin Reiss, and David Serlin, "Introduction," in *Keywords for Disability Studies*, ed. Adams, Reiss, and Serlin, 1-5, at 3. Original emphasis is retained in all quotations.
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4. *Prosthesis* (Stanford: Stanford University Press, 1999), 218 and 223-32.
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5. See, for example, Sarah S. Jain, "The Prosthetic Imagination: Enabling and Disabling the Prosthesis Trope," *Science, Technology, & Human Values* 24 (1999): 31-54, <https://doi.org/10.1177/016224399902400103>; Marquand Smith and Joanne Morra, "Introduction," in *The Prosthetic Impulse: From a Posthuman Present to a Biocultural Future*, ed. Marquand Smith and Joanne Morra (Cambridge, MA: MIT Press, 2006), 1-14; and Jay Timothy Dolmage, *Disability Rhetoric* (Syracuse, NY: Syracuse University Press, 2014), 107.
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6. For another recent reevaluation of early modern discourse about disability, see Elizabeth B. Bearden, "Before Normal, There Was Natural: John Bulwer, Disability, and Natural Signing in Early Modern England and Beyond," *PMLA* 132 (2017), 33-50. <https://doi.org/10.1632/pmla.2017.132.1.33>
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7. *Early English Books Online*, Chadwyck-Healey, 2003-17, <http://eebo.chadwyck.com> [hereafter *EEBO*], accessed February 2017.
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8. I use the term *archive* in a sense drawn from cultural and media studies, especially Michel Foucault, *The Archaeology of Knowledge and The Discourse on Language*, trans. A. M. Sheridan Smith (New York: Pantheon Books, 1972); and Wolfgang Ernst, *Digital Memory and the Archive*, ed. Jussi

Parikka, *Electronic Mediations* 39 (Minneapolis, MN: University of Minnesota Press, 2013). See a more general overview of uses, from a librarian's perspective, in Marlene Manoff, "Theories of the Archive from Across the Disciplines," *portal: Libraries and the Academy* 4 (2004), 9-25.

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9. *Archaeology of Knowledge*, 126.

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10. *Ibid.*, 129.

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11. Williams, *Keywords*.

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12. For other early modern examinations of disability in early modern sources, see *Recovering Disability in Early Modern England*, ed. Allison P. Hobgood and David Houston (Columbus: The Ohio State University Press, 2013).

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13. See, for example, *Media Archaeology: Approaches, Applications, and Implications*, ed. Erkki Huhtamo and Jussi Parikka (Berkeley: University of California Press, 2011); Jussi Parikka, *What Is Media Archaeology?* (Cambridge: Polity, 2012); and Michael Goddard, "Opening up the Black Boxes: Media Archaeology, 'Anarchaeology' and Media Materiality," *New Media & Society* (2014), 1-16.

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14. *Disability Media Studies*, ed. Elizabeth Ellcessor and Bill Kirkpatrick (New York: NYU Press, 2017).

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15. *Understanding Media: The Extensions of Man, Critical Edition*, ed. W. Terrence Gordon (Berkeley: Gingko Press, 2003).

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16. On prosthesis and cybernetics, see esp. N. Katherine Hales, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999), <https://doi.org/10.7208/chicago/9780226321394.001.0001>; *Prosthetic Impulse*, ed. Smith and Morra; and Staša Sever, "Prostheses, Cyborgs and Cyberspace—the Cyberpunk Trinity," *ELOPE* 10 (2013), 83-93.

<https://doi.org/10.4312/elope.10.2.83-93>

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17. "Introduction: Toward a Disability Media Studies," in *Disability Media Studies*, ed. Ellcessor and Kirkpatrick, 1-28, at 16.

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18. *Oxford English Dictionary Online*, Oxford: Oxford University Press, 2017, www.oed.com [hereafter *OED*], accessed February 2017.

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19. *Ibid.*, s.v. *prosthesis*, www.oed.com/view/Entry/153069, accessed February 2017.

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20. See H. G. Liddell, R. Scott, and H. S. Jones, *A Greek-English Lexicon*, 9th ed. with rev. supplement (Oxford: Oxford University Press, 1996), s.v. *πρόσθεσις*.

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21. See P. G. W. Glare, *Oxford Latin Dictionary* (Oxford: Oxford University Press, 1968-82), s.v. *prosthesis*.

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22. *A treatise of Schemes & Tropes very profytable for the better understanding of good authors, gathered out of the best Grammarians & Oratours* (London: John Day, 1550). Early printed books are cited parenthetically by nos. according to the *English Short Title Catalogue*, British Library, <http://estc.bl.uk/> [hereafter *ESTC*], accessed February 2017; with references to either page or folio nos. (if present) or image nos. as in *EEBO*.

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23. Sherry, *A treatise of Schemes & Tropes*, image 14. See *OED*, s.v. *prosthesis*.

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24. *The Arte of Rhetorique, for the use of all suche as are studious of Eloquence, sette forth in English* (London: Richard Grafton, 1553), fol. 94r.

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25. *The dictionary of syr Thomas Eliot knyght* (London, 1538).

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26. *Ibid.*, s.v. *prosthesis*.

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27. See, recently, Gabriele Stein, *Sir Thomas Elyot as Lexicographer* (Oxford: Oxford University Press, 2014),

<https://doi.org/10.1093/acprof:oso/9780199683192.001.0001>; and John Considine, "Sir Thomas Elyot Makes a Dictionary," *International Journal of Lexicography* 27 (2014): 309-18, with further references there.

<https://doi.org/10.1093/ijl/ecu008>

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28. *Bibliotheca Eliotae: Eliotis Librarie* (London: Thomas Bertheleti, 1542), s.v. *prosthesis*: "an addition of a letter, as gnatus for natus."

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29. On first occurrences of words in the English definitions of Elyot's *Dictionary* (often neologisms), see Stein, *Sir Thomas Elyot as Lexicographer*, and Considine's remarks in "Sir Thomas Elyot Makes a Dictionary."

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30. *The New World of English Words: Or, a General Dictionary* (London: E. Tyler for Nath. Brooke, 1658).

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31. *New World of English Words*, images 10-11.

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32. See *New World of English Words*, s.v. *amphibious*, *anaphora*, *antiperistasis*, *apocalyps*, *atrophy*, *cataphora*, *diaeresis*, *ectype*, *engastrimuch*, *epitaph*, *hyperphysical*, *hypogastrick*, *metamorphosis*, *parable*, *peripherie*, *polygony*, *prodrome*, *prototype*, and *pseudomartyr*.

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33. *An English Dictionary* (London: Samuel Crouch, 1676), s.v. *prosthesis*.

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34. *The New World of English Words: Or, Universal English Dictionary* (London: J. Phillips, H. Rhodes, and J. Taylor, 1706). According to *ESTC*, there was no 1704 printing of Phillips's dictionary.

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35. *Prosthesis*, 218.

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36. *Prosthesis*, 218.

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37. *Centre National de Ressources Textuelles et Lexicales*, 2012, s.v. *prothèse*, <http://www.cnrtl.fr/etymologie/prothèse>, accessed February 2017.

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38. *La chirurgie complete, par demandes et par réponses* (Paris: Chez Estienne Michallet, 1695). Because of its rarity, I have been unable to consult the 1695 printing, although I have consulted the 1696 printing (also printed in Paris by Chez Estienne Michallet) via digital facsimile, and all references are to this version.

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39. *The compleat surgeon: Or, the whole art of surgery explain'd in a most familiar method* (London: M. Gillyflower, T. Goodwin, M. Wotton, J. Walthoe, and R. Parker, 1696); no translator is listed on the title page or in *ESTC*. Some catalogues and other resources list the author's surname as "Leclerc," although "M. le Clerc" is given on the title pages for both the French and English books. In the *ESTC* record for *The compleat surgeon* (R224148), the author is given as "Le Clerc, Charles Gabriel, 1644-1700?" with a note that claims, "Attributed by Wing, perhaps erroneously, to Daniel Le Clerc"; cf. Elizabeth Lane Furdell, *Publishing and Medicine in Early Modern England* (Rochester, NY: University of Rochester Press, 2002), 110, where she gives the author's name as Daniel Le Clerc in reference to later English printings. The author is given as "Le Clerc, Charles Gabriel, 1646-1719?" in the full catalogue record for *La chirurgie complete* in the *Hathi Trust Digital Library*, <https://catalog.hathitrust.org/Record/009265395>, accessed February 2017. I have been unable to reconcile the discrepancy or find supporting evidence for the dates of le Clerc's birth and death according to these records.

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40. *The compleat surgeon*, image 177.

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41. *Ibid.*, 2-3.

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42. *La chirurgie complete*, 3.

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43. *The compleat surgeon*, 2; and *La chirurgie complete*, 2-3.

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44. See definitions in Phillips, *New World of English Words* (1658); and Coles, *English Dictionary*. *Synthesis* does not appear in Phillips, *New World of English Words*.

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45. On the return to classical sources by early modern lexicographers, see esp. John Considine, *Dictionaries in Early Modern Europe: Lexicography and the Making of Heritage* (Cambridge: Cambridge University Press, 2008), <https://doi.org/10.1017/CBO9780511485985>. On the return to classical sources for early modern medicine (though focused on the earlier period), see esp. R. W. McConchie, *Lexicography and Physicke: The Record of Sixteenth-Century English Medical Terminology* (Oxford: Oxford University Press, 1997).

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46. *Ars Chirurgica. A Compendium of the Theory and Practice of Chirurgery in Seven Books* (London: J. Dawks, 1698).

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47. See Furdell, *Publishing and Medicine*, 71.

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48. *Ars Chirurgica*, 2.

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49. *Ibid.*, 119-25.

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50. *Ibid.*, 119.

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51. *Ibid.*, 125.

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52. *Ibid.*

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53. See, for example, discussion of "lack" and the desire to move away from such rhetoric, in Adams, Reiss, and Serlin, "Introduction," 2.

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54. See, for example, Wills, *Prosthesis*; Mia Fineman, "Ecce Homo Protheticus," *New German Critique* 76 (1999): 85-114, <https://doi.org/10.2307/488659>;

Artificial Parts, Practical Lives: Modern Histories of Prosthetics, ed. Katherine Ott, David Serlin, and Stephen Mihm (New York: New York University Press, 2002); *Prosthetic Impulse*, ed. Smith and Morra; Amanda K. Booher, "Docile Bodies, Supercrrips, and the Plays of Prosthetics," *International Journal of Feminist Approaches to Bioethics* 3 (2010): 63-89, <https://doi.org/10.3138/ijfab.3.2.63>; Margrit Shildrick, "Re-Imagining Embodiment: Prostheses, Supplements and Boundaries," *Somatechnics* 3 (2013): 270-86, <https://doi.org/10.3366/soma.2013.0098>; and Katherine Ott, "Prosthetics," in *Keywords for Disability Studies*, ed. Adams, Reiss, and Serlin, 140-43.

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55. Foucault, *Archaeology of Knowledge*, 127.

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56. For examples of titles, see David T. Mitchell and Sharon L. Snyder, *Narrative Prosthesis: Disability and the Dependencies of Discourse* (Ann Arbor, MI: University of Michigan Press, 2000); Dolmage, *Disability Rhetoric*; and *Keywords for Disability Studies*, ed. Adams, Reiss, and Serlin.

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57. Sara Hendren, "All Technology Is Assistive: Six Design Rules on 'Disability'," October 16, 2014, *Backchannel*, <https://backchannel.com/all-technology-is-assistive-ac9f7183c8cd>, accessed February 2017.

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58. *Disability Rhetoric*, 107.

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59. See Bess Williamson, "Access," *Keywords for Disability Studies*, ed. Adams, Reiss, and Serlin, 14-17.

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60. See Ellen Wexler, "Subscription Scare Fuels Worries Over Who Controls Data That Scholars Need," October 30, 2015, *The Chronicle of Higher Education*, <http://www.chronicle.com/article/Subscription-Scare-Fuels/234003>, accessed February 2017; and Carl Straumsheim, "Preventing Another #ProQuestGate," November 2, 2015, *Inside Higher Ed*, <https://www.insidehighered.com/news/2015/11/02/renaissance-society-america-seeks-avoid-another-proquestgate>, accessed February 2017.

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61. *Digital Memory and the Archive*, ed. Parikka, 28.

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62. See esp. Elizabeth Eisenstein, *The Printing Press as Agent of Change: Communication and Cultural Transformation in Early Modern Europe*, 2 vols. (Cambridge: Cambridge University Press, 1979); Adrian Johns, *The Nature of the Book: Print and Knowledge in the Making* (Chicago: University of Chicago Press, 1998), <https://doi.org/10.7208/chicago/9780226401232.001.0001>; contributions by Anthony Grafton, Elizabeth Eisenstein, and Adrian Johns in the forum "How Revolutionary Was the Print Revolution?" in *American Historical Review* 107 (2002), 84-125; essays in *The Uses of Script and Print, 1300-1700*, ed. Julia Crick and Alexandra Walsham (Cambridge: Cambridge University Press, 2004); overview in Michelle O'Callaghan, "Publication: Print and Manuscript," *A New Companion to English Renaissance Literature and Culture*, ed. M. Hattaway, 2 vols. (Malden, MA: Wiley-Blackwell, 2010), 160-76, <https://doi.org/10.1002/9781444319019.ch12>, with further references there; and, from a different perspective, Kathleen E. Kennedy, *Medieval Hackers* (Brooklyn, NY: punctum books, 2014).

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63. See Kennedy, *Medieval Hackers*.

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64. "Introduction," 1.

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