use of the Gaelic language in Northumbria. The final chapter looks at the material evidence for Gaelic cultural influence, focusing on the layout of ecclesiastical sites, stone sculpture, and metal dress accessories.

It will be clear from this summary that the work is characterized by the author’s use of a wide array of evidence of different kinds. Making a virtue of necessity—this being the dearth of textual sources for much of Northumbria for much of the period—Edmonds has committed herself to a thoroughly interdisciplinary approach and demonstrated the possibilities open to those seeking to seek out alternative material. Another significant aspect of Edmonds’s approach is in her decision to interpret “Northumbria” in its broadest sense, taking it to refer to all the territories that comprised the kingdom at its greatest extent, even after it fragmented during the Viking Age. This contrasts with other studies, which have tended to focus—at least after the middle of the ninth century—on the story of York, including the rise and fall of the Viking kingdom there and its gradual integration into the emerging kingdom of the English. Edmonds’s approach gives equal billing to regions in the north and west of Northumbria—Lancashire, Cumbria, and parts of Galloway, for example—often neglected by others. In doing so, it demonstrates effectively that a full appreciation of Northumbrian history—cultural, certainly, but also political—requires that attention be paid to the north and west, to continued contact with Ireland, the Irish Sea, and Alba/Scotland, not only to the south and east. This is an important message for historians of Northumbria and, indeed, all of England in the early medieval period.

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Bill Endres’s Digitizing Medieval Manuscripts is an exemplary volume looking into the transformative potential of digital technologies for manuscript studies, while maintaining a firm hold on the importance of materiality for the understanding of books. In the five chapters of this short but focused monograph, the author outlines his years of research, engagement, and understanding in the digitization of manuscripts, drawing from his experience and practice with the membranes of the St. Chad Gospels, housed in Lichfield Cathedral, England (Lich MS 1).

In the introduction, Endres sets the stage and draws the reader’s attention to the two main themes of his volume. First, he points to the information embodied in a manuscript’s physicality—parchment, inks, and pigments—and its importance and uniquely crucial contribution to meaning and knowledge. Second, the author stresses the enhanced reading capacity afforded by digital technologies that enhance “light information” and the interactions of materiality and light, for it is only through these material-light interactions, which Endres describes so profoundly and so precisely, that one can understand the guiding principles of the processes of manuscript digitization.

Different imaging technologies and methods recover and elucidate a manuscript’s materialities to different degrees. In the first chapter, Endres delves into the benefits and limits of reflected light acquisition and multispectral imaging (MSI). Here he describes, in simple but accurate terms, the exploitation of unseen light frequencies—ultraviolet and infrared wavelengths—to recover various ink types, and the targeted use of fluorescence to increase ink/parchment contrast. By providing detailed methodologies and introducing the reader to specific open-source tools and software, Endres essentially empowers scholars with methods to
examine complex MSI data sets to facilitate autonomous contributions among the wider community of manuscript scholars. Chapter 2 moves from two-dimensional representations to 2.5D by means of reflectance transformation imaging (RTI), which records and makes visible minute surface details such as pigment layering, ruling, and drypoint writing. Here, too, Endres is capable of conveying complex concepts in straightforward ways that are imbued with his contagious enthusiasm, and he offers practical and grounded suggestions, such as the use of flashes designed for wedding photography—i.e., UV filtered—to avoid exposing manuscripts to excessive UV light. The third chapter introduces the significance of previous photographic and digital reproduction campaigns (generally undertaken for the most precious manuscripts) and sets forth a method for comparing historical and contemporary photographic materials through digitization and registration processes. Endres calls attention to how much information can be gleaned through this comparison, especially in respect to the aging of an object, the effects—and effectiveness—of previous conservation and rebinding operations, and/or the highlighting of areas of stress through the use of 3D rendering meshes. These well-explained areas of concentration will have a particular potential utility for the book conservation community.

In the last two chapters, the focus shifts from technologies to the consideration of the human element and human relations in digitization. In chapter 4, Endres ponders the necessary considerations one ought to keep in mind when digitizing objects that play active ceremonial roles for their immediate community of users. In essence, the guiding principle he points to is that of reciprocity, borrowed from ethnography. Anything that is acquired and gained with digitization should bring benefits to the community, whether by highlighting the state of conservation of the sacred object or by making it more accessible and readily understood. Reciprocity in this context draws digitization into a dynamic and mindful process.

Chapter 5 centers on “knowledge-spaces,” and here the author informs us about his efforts to utilize 3D and virtual reality (VR) technologies to engage with manuscripts through virtual embodiment. This process involves various senses at once and offers an immersive encounter with manuscripts and specific aspects of their materiality, such as the generation of haptic sensations to feel—and not only visually perceive—pigment layering. Virtual embodiment potentially generates novel knowledge-spaces that could open new research avenues if the knowledge and experience of scholars who are aware of a manuscript’s materiality and its interaction with the human body inform the process.

All considerations and methodological approaches are well founded and illustrated with practical examples taken from Endres’s experiences with the digitization of the St. Chad Gospels. This bottom-up approach effectively explores general theories and practices without straying into impractical theorizations. A series of images aptly illustrate the projects and methodologies, both within the book (in black-and-white) and online (in color), clarifying many points and showcasing issues, lessons learned, and success stories.

Throughout, Endres references highly relevant examples, projects, software, tools, and innovations in addition to bibliographic recommendations, making this volume a concise and excellent summary of the field’s current state of development. This reader was particularly impressed by the attention shown by Endres to conservation issues and by his methodological approach in establishing the effectiveness of past treatments and highlighting areas of stress in clear and measurable ways. The detailed, practical, expert explanations offered for each procedure and technique make this book a reference guide to digital methods applicable to manuscripts that scholars, digitizers, and book conservators alike will find useful in their work. A step-by-step how-to section would have made this book an even more indispensable tool, but this could still be achieved through an online appendix, to be published alongside the color image apparatus and updated as technologies develop. This book is unquestionably
a highly significant contribution to manuscript studies and related fields, including digital humanities more broadly.

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Gareth Lloyd Evans’s *Men and Masculinities in the Sagas of Icelanders* is a welcome offering in Old Norse literary studies. Indeed, as the author himself explains, there has been far less recent work concentrated on men and masculinities in Old Norse literature than that investigating women and femininities, an issue he hopes his book will help to address. In the introduction, Evans further clarifies the importance of exploring and rigorously interrogating categories of masculinity by countering the sometimes-tacit assumption that women must be the sole object of feminist inquiry and that men can somehow exist beyond and outside of gender. As he maintains, masculinities are no less a product of historical and social construction than are femininities.

The book’s first chapter begins with a brief overview of previous scholarship on gender and masculinity in Old Norse literature before focusing on the apparent shortcomings of Carol Clover’s highly influential “one-sex, one-gender model.” The author introduces the notion of “hegemonic masculinity” as a new and more fruitful critical apparatus. Making use of examples from a variety of *Íslendingasögur* [Sagas about Early Icelanders], the book’s primary source material, he demonstrates the value of this concept, particularly in its allowance for the simultaneous presence of multiple masculinities that are constantly configured and reconfigured in relation to a culturally and historically contingent hegemonic ideal. The chapter concludes by enumerating features, deduced from a variety of gender-based insults found across Old Norse literature, that together form a working model of hegemonic masculinity applied throughout the remainder of the book.

The second chapter focuses on the sagas’ representations of “homosocial bonds” between men. Making use of Eve Kosofsky Sedgwick’s model of homosociality, Evans shows how such bonds operate as a mode of social organization in the society depicted in the sagas leading to the policing of men’s masculinities. The chapter places much emphasis on “dyadic homosocial relations,” which frequently require the social subordination of one of the involved parties but not necessarily their feminization. Rather, a localized hierarchy of masculinities emerges, which can either be accepted, leading to stability and amity, or challenged, resulting in instability and conflict. Some readers might wonder why the author, though offering an altogether persuasive argument, hardly mentions two of the more well-known male friendships in the sagas, that of Njáll and Gunnarr in *Njáls saga* and Egill and Arinbjörn in *Egils saga*. Even if they are outliers that fail to follow the common subordination pattern, these examples are worthy of some attention—if only as exceptions that prove the rule—as their absence is otherwise rather conspicuous.

The third chapter employs the concept of “intersectionality,” first introduced by Kimberlé Crenshaw, to explore how masculinities in the sagas interact with a range of other identity categories. The categories under investigation include youth, old age, race, impairment/disability, sexuality, religion, and socio-economic status. Again, availing of examples from a variety of *Íslendingasögur*, the author demonstrates that masculinity in the sagas cannot be examined properly without taking these other categories into account. When masculinity is centered, it becomes clear that other identity categories function as “stressors for masculinity, which is problematized as a direct result of the intersection of identity traits” (106). As *Speculum* 96/1 (January 2021)