words, the particular tools themselves appear almost as metaphors for how we would like to engage with our audiences and the services we would like to provide. On the whole, this is a must-read for those who are just beginning to think about social media in archives, as well as a thought-provoking study for those who are already engaged in the use of such tools.

Kathryn Harvey Archival and Special Collections University of Guelph

From Grain to Pixel: The Archival Life of Film in Transition. GIOVANNA FOSSATI. Amsterdam: Amsterdam University Press, 2009. 320 p. ISBN 978-90-8964-139-7.

From Grain to Pixel: The Archival Life of Film in Transition is an in-depth examination of the analog-to-digital transition as it is currently playing out in the related fields of film production, distribution, and exhibition. The book covers the subject from a number of perspectives, beginning with the slow adoption of digital technology and tools by commercial film production. It explores the impact on film archivists and conservators in areas such as the acquisition and preservation of digital cinema and the preservation of "soon-to-be legacy" photochemical films. Finally, it examines the introduction of new production practices in the restoration activities of film archives, cinematheques, film institutes, Hollywood studios, film laboratories and post-production facilities, all of which play a role in the preservation of the world's film heritage.

The author brings both an academic background and extensive practical experience to the subject. Fossati earned a PhD in Media and Culture Studies from Utrecht University in the Netherlands and works as curator at the Nederlands Filmmuseum, where she has been involved in all aspects of archival film work, including a number of film restoration projects using both analog and digital technology. But Fossati's primary interest in writing the book was not to provide a historical overview of this technological transition, much of which is already available in the numerous sources listed in the bibliography. Instead, she writes:

I propose a new theorization of archival practice. I aim to demonstrate that practice is in a constant state of transition, characterized by a growing hybridization between analog and digital technology, and that an appropriate theorization of archival practice is not only relevant and necessary, but urgent for such a transitional practice, producing ever changing film (archival) artifacts (p. 26).

One caveat is that the book was published in 2009, with a significant amount of research conducted in 2008. As a result, its description of digital technology

is not quite up-to-date, though most recent developments in digital audiovisual technology are clearly foreseeable from Fossati's description of the situation in 2008. This includes a thorough introduction to the many aspects of digital audio and audiovisual technology and how they are reshaping both commercial and archival practices in the field. It is not, however, a deeply technical book; the technology is explained only to the extent needed to offer a clear analysis of the impact.

The discussion of these technological changes leads naturally to a comparison of analog versus digital restoration techniques and their strengths and weaknesses. Fossati examines the choices archivists and conservators have to make today, and illustrates the many ethical challenges hiding inside each new, improved technique and tool. All of this groundwork is laid out in support of Fossati's analysis of the current transitional state of archival film practices through the prism of theoretical frameworks, concepts, and methodologies borrowed from other disciplines, particularly academic studies of new media and technology. As she explains:

At this crucial moment of changing technologies and concepts there is insufficient dialogue between film archives and academia. Caught up in everyday practicalities, film archivists rarely have time to reflect on the nature of film and on the consequences deriving from new technologies on the viability of film as a medium. On the other hand, researchers investigating the ontology of the medium theorize future scenarios at a much faster pace than practice can keep up with, often without considering the material and institutional realities underlying the medium. This situation is leading to an increasing estrangement between theory and practice (p. 15).

It takes fifty pages to define each component of Fossati's methodological construct, beginning with four theoretical frameworks. "Film as original" emphasizes the film artifact itself, while also examining the work as an intellectual concept separate from its physical instantiation. The characteristics and concerns of the avant-garde and experimental filmmakers are classified under "film as art," while "film as state-of-the-art" focuses on those who push the technological envelope. Finally, "film as dispositif" discusses the changing world of film exhibition, as well as the need for an increasingly interactive relationship between film archives and their audiences.

Furthermore, there are three concepts – convergence/divergence, simulation, and remediation. Broadly, all three pre-existed the digital era but have been revisited in recent years by new media theorists. Narrowed to an archival perspective, these concepts are used to "define different beliefs with respect to the practice of film restoration in this time of transition to digital" (p. 134). As such, they can be mixed and matched with the four previously defined frameworks. Convergence is not simply the technical concept wherein text, image, and audio merge to become a single medium of bits and bytes. The second term – divergence – establishes the significance of this characteristic as the process of transition itself:

In the case of archival practice, convergence/divergence describe what is happening in a field stretched between two forces, one heading towards convergence of technology, standards, and means, and the other heading towards diversification of means, multispecialization and, literally, divergence (p. 137).

Remediation is described as "a parallel process where old and new media interact, influencing one another" (p. 138). From this perspective, a film restorer becomes a mediator between the original work and the options offered by analog and digital restoration technology, choosing to make the restoration process more or less visible in the end product. Finally, simulation can be discussed generally in terms of the relationship between film and whatever "reality" the footage sets out to capture. Within film restoration, however, simulation can be understood primarily as the ability of digital technology to re-create characteristics or effects as they were generated in the past by now obsolete analog film technology.

The final component of Fossati's analytical tool set is based on Social Construction Theory (SCOT), a methodology developed in social studies to analyze the social construction of technologies. This approach, in particular, seems to have led to the identification of several "relevant social groups" – film archives, film laboratories, professional associations, international projects, as well as individual actors who move among the relevant social groups and contribute to the dissemination of knowledge during these transitional times.

Fossati then examines the work of four organizations – the Danish Film Institute, the Anthology Film Archives in New York, the Nederlands Filmmuseum, and Sony Pictures Entertainment – drawing parallels between each organization's preservation policies and practices and the various frameworks and concepts defined earlier. The process is repeated using the examples of five film restorations performed by the selected organizations. The best-known of these films is undoubtedly *Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb* (1964), the restoration of which was undertaken by Sony Pictures Entertainment. The techniques used in each project are categorized according to the restoration methods, either convergence/divergence, simulation, or remediation. In the case of *Dr. Strangelove*, the simulation concept recognizes the efforts of the restorers to faithfully reproduce the original viewing experience of the film, particularly as those efforts affected the quality of the black-and-white image, and the maintenance of the historically correct aspect ratio.

In the end, each archival institution and each case study reflect the characteristics of at least two frameworks and one concept. More striking is the fact that, despite the attention devoted to the application of theory to film restoration practices, in the final analysis each technical/ethical choice made by each player in the course of each restoration reflected two basic archival facts of life: respect for the qualities of the original film tempered by the limitations of what the institution could afford.

Overall, both the structure of the book and the writing style result in significant repetition of material from one chapter to the next, primarily in the frequent previews of what is to come and recaps of what has come before. This iterative and fully integrated structure also means that a reader cannot easily dip into some aspects of the book while skipping others. In conclusion, my "pragmatic" archivist remained unconvinced of the need for a theory of archival film practice, though my reaction clearly illustrates the gap between theorists and archivists that the author decries. Perhaps the book attempts to cover too many ideas, encompassing as it does production and preservation, analog and digital technologies, and practical and theoretical approaches. While audiovisual archivists need to come to terms with the changes, both good and bad, that digital technology brings to the field of film restoration, the theoretical approach offered in this book does not strike me as particularly helpful.

Yvette Hackett

The Lone Arranger: Succeeding in a Small Repository. CHRISTINA ZAMON. Chicago: Society of American Archivists, 2012. vi, 157 p. ISBN 1-931666-41-5.

The Lone Arranger is a welcome and significant addition to archival literature because it specifically addresses the jack-of-all-trades nature of working alone. Playing on the famous Western television series *The Lone Ranger*, Christina Zamon calls those "who work alone or with only part-time or volunteer staff" (p. 1) "lone arrangers." For Zamon, the purpose of the book is to address some of the common issues often faced by these lone arrangers, such as time management, outreach initiatives, digitization projects, processing, and preservation prioritization.

Zamon is head of Archives and Special Collections at Emerson College in Boston. She was also the chair of the Society of American Archivists' Lone Arrangers Roundtable from 2010 to 2012 (p. 150). Drawing on her expertise and experience, she offers valuable knowledge and insight into an area of archival practice that is under-represented in the literature. Zamon provides a clear and thorough introduction to the aims of the book and the reasons for its organization. The work is divided into seven chapters that guide readers through important, comprehensive questions and common problems faced by lone arrangers. Chapter titles range from "What Am I Doing Here?" (Chapter 1) to "How Am I Going to Pay for This?" (Chapter 7) and include topics such as administration and budget, fundraising and donor relations, information technology, collections management, records management, preservation, refer-