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Visions of electric media: television in the Victorian and machine ages

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Visions of Electric Media: Television in the Victorian and Machine Ages
        by Ivy Roberts
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In an 'Interlude' following the third of the five main chapters of *Visions of Electric Media: Television in the Victorian and Machine Ages*, Ivy Roberts stresses how open was the future of television in the late 1920s and early 1930s. Would its output be consumed primarily in domestic settings or be screened live in cinemas? Would it be a centralised broadcast medium or a visual adjunct to the telephone? And would its technology be all-electronic or based in one of several competing mechanical systems? Roberts is right to highlight the contingency of the moment, although with hindsight we know that in each case the former option was the road taken. But the broad sweep of the determining economic, regulatory, technological and social forces that created the television of the mid- twentieth century is not the focus of this book. Rather, this welcome but at times frustrating and repetitive volume explores in detail five individual and somewhat oblique strands of television's pre- and early history.

The chapters before the 'Interlude' develop a discourse analysis of imagined forms of television in what Roberts identifies as the medium's 'speculative era' of the late nineteenth century. One case study is George du Maurier's well-known satirical illustration 'Edison's Telephonoscope', published in *Punch* in December 1878. Analysing a wealth of contemporary writing, Roberts argues that the image is not only a speculation about moving-image technology but also a critique of Victorian invention. The second focus is on Thomas Edison's own 1889 announcement of a 'Far-Sight Machine', which despite never being realised contributed to confusion about the properties of the Kinetograph and Kinetoscope which he unveiled two years later. In the discussion of these imagined forms of television, as throughout the book, Roberts cites a cornucopia of primary and secondary sources and offers precise readings of a rich range of associated illustrations.

Chapter 3 develops the argument that the turn of the twentieth century saw a transition from a 'seeing by electricity' conception of television. Predicated on a philosophy of technology that Roberts identifies with the writings of R.E. Liesegang and Ernst Kapp, this understood machines as direct extensions of the human body. In this framework, still-to-realised television was imagined as stretching the human eye across space. By contrast, Roberts suggests that in the early twentieth century 'popular science encouraged a new way of thinking about television as a perceptual process, a partnership between humans and technology' (p. 128). As is

demonstrated by consideration of designs for operational television that were perhaps more plausible than feasible by, among others, Jan Szczepanik and Hugo Gernsback, the emphasis had by this point shifted from organs to systems in which technological mediation was fundamental.

Post-'Interlude', two chapters discuss actually existing systems and their engineers, although the usual subjects in early television histories like John Logie Baird and Vladimir Zworkin appear mostly in the margins. Chapter 4 outlines the history of 'illuminating engineering', focussing on the work of Herbert Ives, Matthew Luckliesh and Deane Judd, and proposes that 'these engineers worked towards the goal of making the televisual experience seem as natural as possible' (p. 161). The detailed technical discussion recovers this history but largely fails to connect it with the more mainstream history of television's development. The book promises that connections with 'the design of Machine-Age television' (p. 185) will be demonstrated in the concluding chapter, which considers the Bell Labs two-way television project of the late 1920s, known as the Ikonophone.

While the discussion fails to support the bold assertion that 'the Ikonophone marks the moment of television's transition from a technology into a visual medium' (p. 191) Roberts is strong on detail and sources, as well as including a fine selection of rare illustrations. More broadly the case is made for giving more serious consideration to the various mechanical-optical systems of television. Yet the all-electronic systems proved in the 1930s to be significantly superior, including in the BBC's head-to-head trial at the start of the high-definition transmissions from London's Alexandra Palace. In 1936. In his authoritative *Television: An International History of the Formative Years* (London: Institution of Electrical Engineers, 1998), R.W. Burns devoted just one out of more than 600 dense pages to the Ikonophone, and for this reviewer Chapter 5 fails to overturn this implicit assessment of its importance.

Visions of Electric Media has appeared alongside Doron Galili's fuller and more confidently written *Seeing by Electricity: The Emergence of Television* (Duke University Press, 2020). There are numerous overlaps but Galili ranges more widely and embeds his discussion deeper in thinking about perception and the culture of modernity, as well as more specifically in contemporary film studies. He makes especially fruitful connections with the work of early cinema scholars including André Gaudreault and Tom Gunning whose writings are referenced but not fully engaged with by Roberts. Nonetheless, *Visions of Electric Media* is productive and at times provocative, and like Galili's book is significant for extending discussions beyond the narrow engineering focus that has dominated this field to date. As these two books demonstrate, the pre- and early history of television has much to offer those interested more generally in intermedial configurations and explorations of media in transition.