

as a principled patriotic cause, but instead as the masked greed of an emergent cartel, something that the smaller British and African firms, fearful of being frozen out of this valuable export trade, had publicly argued for some months. Carson's defeat strengthened Bonar Law's position as Conservative leader, but he failed signally to reinvigorate the coalition and instead found himself working with Lloyd George to sideline Asquith. In Nigeria, the campaign to support sales to neutrals brought to the fore a new group of leaders in the nationalist movement who were all connected to the palm nuts trade.

This is an excellently researched and fluently written book that makes extensive use of underused primary sources, particularly those of the Colonial Office, held at the National Archives at Kew in west London. It will be of immense value to students of British politics, Nigerian nationalism, colonialism and colonial government in West Africa, as well as early twentieth-century African economic development.

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Jocelyn Wills. *Tug of War: Surveillance Capitalism, Military Contracting, and the Rise of the Security State*. Montreal: McGill-Queen's University Press, 2017. 500 pp. ISBN 978-0-7735-5047-6, \$39.95 (cloth).

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One of the recurring themes in Jocelyn Wills's detailed history of the formation and development of the Canadian company MDA (MacDonald, Dettwiler and Associates) is the push and pull between competing interests of advancing technology and advancing profit and the role that this tension had in shaping the company. *Tug of War* takes the reader from an early "basement" start-up phase to the emergence of MDA as an international company, tracing out the ambitions of its founders, the challenges of growing a company, the complexities of military contracting, and the security interests of the Canadian government. As told by Wills, the story of MDA centers on the figures and personalities of its founders, John MacDonald and Vern Dettwiler and their shared passion for computing rooted in their research at University of British Columbia. This is very much a Silicon Valley start-up narrative set in Vancouver, with the protagonists shaped by a

computing R&D and engineering culture, competition, and desire, often explicitly unconcerned with how that technology would be sold effectively or used by states in war and surveillance applications (Wills, 128). The state thus serves as a vehicle to fund and direct this development; it is the tug of war that charts MDA's growth. As Wills concludes, "Generally well-intentioned and seemingly apolitical, people at MDA got caught up in the excitement of technological development and capitalist ambitions, but it took the stimulus of the state to push them to take a larger leap into remote sensing and the increasingly secretive world of surveillance procurement" (Wills, 356).

Because of Wills's heavy focus on individuals and attention to personal detail—both of the founders and those who came to work at MDA—some especially interesting aspects of MDA's history emerge through the book. The first is how central the idea of "sweat equity" is to the story of MDA. Over and over again, MDA narrowly escapes failure to deliver on contracts within budget by relying on the unpaid overtime work of its staff. On the one hand, this fits MDA unsurprisingly within a largely male-dominated, institutional culture of extreme overwork and dedication to knowledge production that has been documented in the rise of companies like Google and Facebook.<sup>1</sup> In these narratives, technological progress is linked to a blend of exceptional genius and all-consuming dedication. However, the importance of sweat equity to MDA's survival also positions it centrally within a broader structure of capitalism. MDA's reliance on and promotion of sweat equity is tied to the extraction of labor power in the age of communicative capitalism.<sup>2</sup> Wills does not unpack these implications—she positions MDA more within the development of surveillance capitalism as discussed later in this review; however, this insight opens up other avenues for bringing the development and structures of capitalism more squarely into studies of the development of military technologies.

Second, and related, the broader institutional culture of MDA, and the military-industrial complex in general, is told through the narratives in the book. As Wills's subtitle makes clear, the history of MDA is a history of the rise of the security state, and while there are specificities to the Canadian case, as she makes clear, this also connects MDA to broader Cold War computing, weapons development, and systems analysis projects in North America<sup>3</sup> and think tanks like the RAND Corporation.<sup>4</sup> The military and security technologies, however, are in

1. Two accounts here include Ullman, *Close to the Machine*; and Pao, *Reset*.

2. Dean, "Communicative Capitalism."

3. E.g., Edwards, *The Closed World*; Farish, *The Contours of America's Cold War*; MacDonald, *Escape from Earth*.

4. Bessner, *Democracy in Exile*.

many ways background to Wills's history—we get a sense of the evolving aims of the security state, but this is largely filtered through MDA's development and its mobilization of these desires as a company. I think this is both a strength and a weakness of the book—many narratives of security and weapons development risk an overemphasis on technology, and this brings people back into the story, as well as decentering the state as the primary driver of military technological development.

The more specific structural framing for Wills's book, however, is surveillance capitalism, which serves as the link between the rise of the security state and companies like MDA. For Wills, surveillance capitalism is defined by the market it names: the investment in surveillance technologies and the broader technology and data industry that built up around it. As mentioned earlier, the story of MDA in this account is the intersection of the company with this larger market and the profit-based interests of capital. The term *surveillance capitalism*, however, has come to identify a deeper shift in capitalism that is for the most part absent in *Tug of War*. Surveillance capitalism, as the concept marshaled by Shoshana Zuboff, names a new variant of capitalism and logic of accumulation, one that draws its raw materials from human experience and behavioral modeling.<sup>5</sup> This links it back to arguments about communicative capitalism. Gaining in popularity as a way to understand Internet culture, Big Data, and the political era of Cambridge Analytica,<sup>6</sup> surveillance capitalism is seen as a twenty-first-century development and thus could be argued to fall mostly outside the temporal scope of Wills's study. However, given the prevalence of the term, it is surprising she does not engage with it. In fact, framed around this contemporary debate, *Tug of War* could be read as providing a longer historical framing and corrective to an overemphasis on AI and new technology in some surveillance capitalism literature. Many of these trends can trace their roots back to the post–World War II computing research and security environment, paralleling the development of companies like MDA.

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5. Zuboff, *The Age of Surveillance Capitalism*.

6. Naughton, "The Goal Is to Automate Us."

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Shani Orgad. *Heading Home: Motherhood, Work, and the Failed Promise of Equality*. New York: Columbia University Press, 2019. 304 pp. ISBN 978-0231184724, \$30.00 (cloth).

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Shani Orgad's *Heading Home* is the latest among a growing number of books to examine the phenomenon of wealthy and upper middle-class mothers "opting out" or leaving high-powered careers to devote themselves to familial and domestic labor. Whereas previous studies, including Pamela Stone's *Opting Out?* (2007) and Bernie Jones's edited collection *Women Who Opt Out* (2012) focus on mothers in the United States, *Heading Home* examines the experiences of women living in London. The thirty-five women Orgad interviewed for her book are highly educated, accomplished professionals who left their careers after an average of eight years in the workforce. Orgad argues that these women experience privilege and oppression simultaneously: While their economic security provided them with the option of leaving their jobs, gender inequality at work and at home profoundly shaped their career choices.

Orgad divides *Heading Home* into three sections which trace her subjects' experiences in the workplace, after returning home, and