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Dylan Mulvin, *Proxies: The Cultural Work of Standing In*

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Proxies: The Cultural Work of Standing In investigates the production and popularization of the stand-ins, models and prototypes that inhabit our world. The aim of *Proxies* to direct the reader's attention to the standards that we take for granted – from patient programmes to *Playboy* centerfolds at the heart of image processing – is satisfied through a clear articulation of its central thesis and a handful of persuasive case studies. The book arms historians of science and technology with a powerful new tool for unbraiding the relationship between standardization and the production of knowledge.

* The original version of this article was published with an error in the spelling of the author name. A notice detailing this has been published and the errors rectified in the online PDF and HTML version.

Dylan Mulvin begins by introducing the US military's Urban Target Complex, a dummy town built from shipping containers and empty bomb canisters located in south-western Arizona fewer than six miles from the US–Mexico border. Known colloquially as 'Yodaville' after retired US Marine Corps colonel Floyd 'Yoda' Usry, the installation was constructed in the late 1990s in response to an operation by US special forces in Mogadishu during the Somali Civil War (later made famous by the 1999 book *Black Hawk Down* and the 2001 film of the same name) to enable soldiers to train for a new kind of urban warfare. Characterizing Yodaville, which houses a very real US military presence, as a 'stand-in' for foreign war zones, Mulvin explains that the complex acts as a theatre of war without risking any of its territorial occupations. Yodaville is our introduction to the 'proxy', which performs this dual function of acting as the 'necessary form of make-believe and surrogacy that enable[s] the production of knowledge' (p. 4). Such knowledge production, by this account, relies on the people, artifacts, places and moments invested with the authority to represent the world.

Proxies 'mediate between the practicality of getting work done and the collective, aesthetic, and political work of capturing the world in an instant' (p. 5). To make this case, Mulvin considers the International Prototype Kilogram (IPK) in his second chapter, a cylindrical piece of platinum-iridium held in a vault in the suburbs of Paris from which the measurement standard of mass was derived for 130 years. The IPK was regularly compared with its sibling kilograms to ensure that its measurement remained static, a process which involved a fifty-minute ritual of washing and cleaning by its stewards. It is this procedure that ensured that the IPK could perform its function as a mechanism for triangulation, which leads the author to conclude that foundational to the idea of 'measurement' was the human, manual and embodied practice of hygiene (p. 36). Situating this process with a broader story of data hygiene, Mulvin convincingly proposes that the curation and maintenance of data are 'necessary, though not sufficient', conditions of bringing things into measurable relationships (p. 72).

Chapter 3 considers the 'Lena' image, a now-canonical test image for digital image processing cropped from a photograph of Swedish model Lena Forsén in the centrefold of the November 1972 issue of *Playboy* magazine. Mulvin connects the standardization of the JPEG and MPEG image formats, which were based on a 512 × 512-pixel version of the Lena image scanned by engineers at the Signal and Image Processing Institute at the University of Southern California, with a model of professional vision 'conditioned by prototypical whiteness of test images and a field shaped by controlling space and bodies through optical capture' (p. 112). In doing so, the text draws attention to the politics of proxification through which standards are shaped by testing regimes and professional practices are in turn moulded by the cultural milieu where professionals work.

Mulvin fast-forwards to the 1990s in Chapter 4, to a moment when the Lena image had calcified into a material proxy within the field of digital image processing and an artefact of the professional vision of computer engineers. Situating the image within the broader story of computer science and engineering in the 1990s, the author returns to the theme of embodied labour to connect the use of test images such as Lena with the institutional context of mistreatment and misrecognition. The story here is one of historical exclusion in which women had little capacity to shape the direction of computer science as a discipline, were limited in shaping the media environments of their workplaces, and were excluded when men defended and repaired the utilitarian value of the Lena image. The Lena centrefold image is thus presented as evidence of the porous nature of the proxy: it carries the traces of an institutional and cultural milieu and leaves 'indelible marks' in return (p. 143).

In Chapter 5 we are introduced to standardized patient programmes used to train medical professionals using actors employed to simulate illness and disability. Standardized patients offer their bodies as stand-ins for a universe of potential bodies, performing their humanity while acting 'as if' they are sick or disabled (p. 145). In doing so, the

author argues, standardized patients embody the decisions made about how best to represent the world made by the standard-maker. These living proxies thus ‘have an impossible but necessary task of standing in for all of us’ as recipients of effective and humane medical practice (p. 181). Mulvin concludes in Chapter 6 by interrogating the way in which standards are concealed and their integration within infrastructure is made sensible, mundane or unremarkable. The book closes with a consideration of the tools and strategies available to those engaged in the excavation of proxies: iconic retextualization pioneered by artists to challenge conceptions of normality, the breakdown of infrastructure itself into a subject of analysis, and efforts to spot the tell-tale signs of the defence and maintenance of proxies. It is perhaps unsurprising that the reader is invited to ‘take stock of the common reference points’ of their knowledge infrastructures at the book’s end (p. 202). A deeply original piece of analysis backed by a rich bank of examples, *Proxies* succeeds in equipping – and provoking – historians of science and technology to ask, to whom or to what do we delegate the power to stand in for the world?

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Daniel S. Milo, *Good Enough: The Tolerance for Mediocrity in Nature and Society*

Cambridge, MA: Harvard University Press, 2019. Pp. 310. ISBN 978-0-6745-0462-2. \$28.95 (hardback).

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At a time of neoliberal ethics, when being better is best, there is heavy pressure on self-improvement. ‘Excellence’ is socially eminent. Or, some write, it is nonsense. Avram Alpert’s 2022 *The Good-Enough Life*, for example, says that ‘perfection’ can be pernicious, because we extend an ideal onto a complex reality. High standards make us unable to come down to earth to our limitations, necessary for a healthy, constructive lifestyle. Daniel S. Milo’s approach is not psychoanalytical, but, he writes, philosophical. Our ideal for competition and talent as the ritual for happiness is, he writes, supposedly based on the theory of natural selection – nature’s laws dictate that there be competition, that there be talent. But nature ‘legalizes’ no such thing, Milo argues. What we have is a perception of nature given to us by a specific culture – nature does not actually work how we are told it does. ‘Human society is not ruthlessly competitive’, he writes,

and neither is nature. Both are tolerant of excess, inertia, error, mediocrity, and failed experiment ... there are many who tell us that talent – sometimes rendered as fitness, sometimes as merit – is all that matters in nature and in human affairs, each following a deep Darwinian law of the universe. This is the dogma I seek to undermine. (p. 6)

The Olympians are the exception. In the book’s first part, Milo analyses cases where nature has supposedly chiselled organisms into efficient forms – the neck of the giraffe, the Galapagos finches or the human brain. Milo writes that nature is in fact characterized by the excess of those who are not particularly efficient. Giraffes, for example, might have long legs, but that surely also affects their ability to give birth, which they do while