

References

- Adler, Dan. "The Apparatus: On the Photography of Thomas Ruff." *Art Journal* 75, no. 2 (Summer 2016): 66-87.
- Ajana, Btihaj. *Governing through Biometrics: The Biopolitics of Identity*. Basingstoke: Palgrave Macmillan, 2013.
- Amaria, Kainaz. "The 'Girl in the Blue Bra.'" *NPR*, December 21, 2011. <https://www.npr.org/sections/pictureshow/2011/12/21/144098384/the-girl-in-the-blue-bra>.
- Amoore, Louise. "Biometric Borders: Governing Mobilities in the War on Terror." *Political Geography* 25, no.3 (March 2006): 336-51. <https://doi.org/10.1016/j.polgeo.2006.02.001>.
- Ballantyne, Michael, Robert S. Boyer, and Larry Hines. "Woody Bledsoe: His Life and Legacy." *AI Magazine* 17, no. 1 (Spring 1996): 7-20. <https://doi.org/10.1609/aimag.v17i1.1207>.
- Benjamin, Walter. "Theses on the Philosophy of History." In Walter Benjamin, *Illuminations*, translated by Harry Zohn, 253-264. New York: Schocken Books, 2007.
- Berger, John. *Ways of Seeing*. London: Penguin Books, 1972.
- Blas, Zach. *Facial Weaponization Communiqué: Fag Face* (2012). Video. <https://vimeo.com/57882032>.
- . "Informatic Opacity: Biometric Facial Recognition and the Aesthetics and Politics of Defacement." PhD dissertation, Duke University, 2014.
- . "A Cage of Information, or, What is a Biometric Diagram?" In *Documentary across Disciplines*, edited by Erika Balsom and Hila Peleg, 80-90. Cambridge, MA: MIT Press, 2016.
- . "Fag Face." *Recaps Magazine*. Accessed May 3, 2019. <http://recapsmagazine.com/review/fag-face-by-zach-blas/>.

- Bledsoe, Woodrow Wilson. "The Model Method in Facial Recognition." Technical Report PRI 15. Palo Alto, CA: Panoramic Research, Inc., 1964.
- Bridle, James. "Drone," James Bridle website. Accessed June 3, 2019. <https://jamesbridle.com/works/category:drone>.
- Broomberg, Adam, and Oliver Chanarin. "The Bone Cannot Lie." In Adam Broomberg and Oliver Chanarin, *Spirit is a Bone*, 206-238. London: Mack, 2015.
- Browne, Simone. *Dark Matters: On the Surveillance of Blackness*. Durham, NC: Duke University Press, 2015.
- Burson, Nancy. *First and Second Beauty Composites* (1982). Gelatin silver prints from computer generated negatives.
- . *Warhead I (Reagan 55%, Brezhnev 45%, Thatcher less than 1%, Mitterand less than 1%, Deng less than 1%)* (1982). Gelatin silver prints from computer generated negatives.
- Çarikçi, Müge, and Figen Özen. "A Face Recognition System Based on Eigenfaces Method." *Procedia Technology* 1 (2012): 118-23. <https://doi.org/10.1016/j.protcy.2012.02.023>.
- "Chaplin Modern Times – Factory Scene (late afternoon)." YouTube video, 4:13. Posted by "Olaf V/s Minions," September 5, 2015. <https://www.youtube.com/watch?v=HPSK4zZtzLI>.
- Cirio, Paolo. *Obscurity* (2016). Inkjet prints. <https://paolocirio.net/work/obscurity/>.
- Cole, Teju. "A True Picture of Black Skin." *The New York Times Magazine*, February 18, 2015. <https://www.nytimes.com/2015/02/22/magazine/a-true-picture-of-black-skin.html>.
- Crary, Jonathan. *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*. Cambridge, MA: MIT Press, 1990.
- Daston, Lorraine, and Peter Galison. *Objectivity*. Cambridge: Zone Books, 2007.
- Dewey-Hagborg, Heather. *Stranger Visions* (2012-2013). Sculpture.
- Dick, Philip K. *A Scanner Darkly*. New York: Vintage Books, 1991.
- Dorment, Richard. "Photography in Focus." *The Telegraph*, May 29, 2003. <http://www.telegraph.co.uk/culture/3595514/PHOTOGRAPHY-IN-FOCUS-The-deadpan-images-created-by-Thomas-Ruff-of-nameless-individuals-and-equally-anonymous-places->

- are-masterpieces-of-austere-neutrality.-By-Richard-Dorment-Now-for-something-completely-indifferent.html.
- Drück, Patricia. *Das Bild des Menschen in der Fotografie: Die Porträts von Thomas Ruff*. Dietrich Reimer, 2004.
- Edkins, Jenny. *Face Politics*. London: Routledge, 2015.
- Elahi, Hasan. Hasan Elahi website. Accessed June 3, 2019. <http://elahi.umd.edu>.
- Ellis, Havelock. *The Criminal*, New York: Scribner & Welford, 1890.
- Enwezor, Okwui. "The Conditions of Spectrality and Spectatorship in Thomas Ruff's Photographs." In *Thomas Ruff: Works 1979-2011*, 9-19. München: Schirmer Mosel, 2012.
- Fanon, Franz. *Black Skin, White Masks*. Translated by Charles Lam Markmann. London: Pluto Press, 1986.
- Farocki, Harun. *War at a Distance*. Video. Berlin: Harun Farocki Filmproduktion, ZDF, 2003.
- . "Phantom Images." Translated by Brian Poole. *Public 29* (Spring 2004): 12-22.
- Fast, Omer. *5,000 Feet is the Best* (2011). Digital video. http://www.gbagency.fr/en/42/Omer-Fast/#!/5-000-Feet-is-the-Best/site_video_listes/88
- Feldman, Alexandra. "Face Recognition: Final Project CS 129, Spring 2011." Computer Science at Brown University. Accessed April 25, 2015. <http://cs.brown.edu/courses/csci1290/2011/results/final/amf1/>.
- Flusser, Vilém. *Into the Universe of Technical Images*. Translated by Nancy Ann Roth. Minneapolis, MN: University of Minnesota Press, 2011.
- Forensic Architecture. *Drone Strike in Mir Ali* (2013). Digital video. <https://forensic-architecture.org/investigation/drone-strike-in-mir-ali>.
- Foucault, Michel, "The Subject and Power," *Critical Inquiry* 8, no. 4 (Summer, 1982): 777-795.
- Foucault, Michel. *Discipline and Punish*. London, Penguin Books, 1991.
- Galton, Francis. *Inquiries into Human Faculty and Its Development*. 2nd ed. Reprint of the 1907 London: Dent edition, galton.org, 2018.

- <http://galton.org/books/human-faculty/SecondEdition/text/web/human-faculty4.htm>.
- Galton, Francis. "Composite Portraits," *Popular Science Monthly* 13 (August 1878).
- Gates, Kelly A. *Our Biometric Future: Facial Recognition Technology and the Culture of Surveillance*. New York: New York University Press, 2011.
- Han, Bang Geul. *Referential Gaze* (2015). Inkjet prints.
- Hoel, Aud Sissel. "Operative Images: Inroads to a New Paradigm of Media Theory." In *Image – Action – Space: Situating the Screen in Visual Practice*, edited by Luisa Feiersinger, Kathrin Friedrich, and Moritz Queisner, 11-27. Berlin: DeGruyter, 2018.
- Hoel, Aud Sissel, and Frank Lindseth. "Differential Interventions: Images as Operative Tools." *Photomediations: A Reader*, edited by Kamila Kuc and Joanna Zylinska, 177-183. London: Open Humanities Press, 2016.
- Introna, Lucas, and David Wood. "Picturing Algorithmic Surveillance: The Politics of Facial Recognition Systems." *Surveillance and Society* 2, no. 2/3 (2004): 177-198. <https://doi.org/10.24908/ss.v2i2/3.3373>.
- Johnston, John. "Machinic Vision." *Critical Inquiry* 26, no. 1 (Autumn 1999): 27-48, <https://doi.org/10.1086/448951>.
- Jones, Charlie Robin. "The Artist Trevor Paglen, The Surveillance State, and Your Life." *SSENSE*, May 15, 2019. <https://www.ssense.com/en-us/editorial/art/this-artist-the-military-industrial-complex-and-your-life>.
- Kedmey, Karen. "Hasan Elahi vs. The FBI: The Art of Self-Surveillance." *Artsy*, May 27, 2016. <https://www.artsy.net/article/artsy-hasan-elahi-vs-the-fbi-the-art-of-self-surveillance>.
- Kemp, Cornelia. "The Other Face." *The Other Face: Metamorphoses of the Photographic Portrait*, edited by Cornelia Kemp and Susanne Witzgall, 8-13. Munich: Prestel Verlag, 2002.
- Kun, Jeremy. "Eigenfaces, for Facial Recognition." *Math Programming* (blog), July 27, 2011. <https://jeremykun.com/2011/07/27/eigen-faces/>.
- Lee, Wonju, Minkyu Cheon, Chang-ho Hyun, and Mignon Park. "Best Basis Selection Method Using Learning Weights for Face

- Recognition." *Sensors (Basel)* 13, no. 10 (October 2013): 12830-51. <https://doi.org/10.3390/s131012830>.
- Levitt, Helen. *Manhattan Transit: The Subway Photographs of Helen Levitt*. Köln: Walther König, 2017.
- Lyon, David. "Facing the Future: Seeking Ethics for Everyday Surveillance." *Ethics and Information Technology* 3, no. 3 (2001): 171-180. <https://doi.org/10.1023/A:1012227629496>.
- . "Surveillance as Social Sorting: Computer Codes and Mobile Bodies." In *Surveillance as Social Sorting: Privacy, Risk and Digital Discrimination*, edited by David Lyon, 13-30. London: Routledge, 2003.
- Magnet, Shoshana. *When Biometrics Fail: Gender, Race and the Technology of Identity*. Durham, NC: Duke University Press, 2011.
- Marx, Karl. *Capital: A Critique of Political Economy*. Vol. 1. Translated by Samuel Moore and Edward Aveling. Moscow: Progress Publishers, 1887.
- McNally, David. *Monsters of the Market: Zombies, Vampires, Global Capitalism*. Chicago, IL: Haymarket Books, 2012.
- Milkowski, Marcin. *Explaining the Computational Mind*. Cambridge, MA: MIT Press, 2013.
- Mitchell, W. J. T. *Iconology*. Chicago, IL: The University of Chicago Press, 1986.
- Mitscher, Clemens. "1987 – Opfer." Clemens Mitscher website. Accessed May 25, 2017. http://mitscher.de/content/?page_id=265.
- Mozur, Paul. "One Month, 500,000 Face Scans: How China Is Using AI to Profile a Minority." *The New York Times*, April 14, 2019. <https://www.nytimes.com/2019/04/14/technology/china-surveillance-artificial-intelligence-racial-profiling.html?partner=IFTTT>.
- Mumford, Lewis. *Pentagon of Power: The Myth of the Machine*, Vol. II, New York: Harcour Brace Jovanovich, 1974.
- Nisbet, Robert A. "Social Science." *Encyclopedia Britannica*, September 27, 2018. <https://www.britannica.com/topic/social-science/The-20th-century>.
- Paglen, Trevor. *I Could Tell You But Then You Would Have to Be Destroyed By Me: Emblems From the Pentagon's Black World*. Brooklyn: Melville House, 2010.

- “Invisible Images (Your Pictures Are looking At You).” *The New Inquiry*, December 8, 2016. <https://thenewinquiry.com/invisible-images-your-pictures-are-looking-at-you/>.
- *Sight Machine*. Performance. January 14, 2017, San Francisco, CA.
- *A Study of Invisible Images*. Exhibition. September 8-October 21, 2017, Metro Pictures Gallery, New York, NY.
- “Machine Realism.” In *I Was Raised on the Internet*, edited by Omar Kholeif, 112-118. Munich: Prestel, 2018.
- Paré, Anthony. “Rhetorical Genre Theory and Academic Literacy.” *Journal of Academic Language & Learning* 8, no. 1 (2014): A83-A94.
- Pearson, Karl. “LIII. On Lines and Planes of Closest Fit to Systems of Points in Space.” *The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science* 2, no. 11 (1901): 559-72.
- Pearson, Karl. *The Life, Letters and Labours of Francis Galton Vol 2*. Cambridge at the University Press, 1924.
- Peters, John Durham. “Information: Notes Toward a Critical History.” *Journal of Communication Inquiry* 12, no. 2 (1988): 9-23. <https://doi.org/10.1177/019685998801200202>.
- Pløeg, Irma van der. “Biometrics and the Body as Information: Normative Issues of the Socio-technical Coding of the Body.” In *Surveillance as Social Sorting: Privacy, Risk and Digital Discrimination*, edited by David Lyon, 57-73. London: Routledge, 2003.
- Quetelet, Adolphe. *Lettres sur la théorie des probabilités appliquée aux sciences marales et politiques*. Bruxelles: M. Hayez, 1846.
- Robbins, Christopher. *The Invisible Air Force: The Story of the CIA's Secret Airline*. London: Macmillan, 1981.
- Ruff, Thomas. *Andere Porträts + 3D*. Germany: Cantz Verlag, 1995.
- e-mail interview, 15 May 2016
- Scheib, Vincent. “Eigenfaces of UNC.” Accessed April 25, 2015. <http://www.scheib.net/school/uncfaces/index.html>.
- Shivelbusch, Wolfgang. *The Railway Journey: The Industrialization of Time and Space in the 19th Century*. Berkeley, CA: The University of California Press, 1986.
- Schultze-Naumburg, Paul. *Kunst und Rasse*, Munich: J.F. Lehmanns Verlag, 1928.
- Sekula, Allan. “The Body and the Archive.” *October* 39 (Winter 1986): 3-64.

- Sirovich, Lawrence, and Michael Kirby. "Low-dimensional Procedure for the Characterization of Human Faces." *Journal of the Optical Society of America* 4, no. 3 (April 1987): 519-24.
- Stephens, Elizabeth. "Francis Galton's Composite Portraits: The Productive Failure of a Scientific Experiment." Unpublished manuscript. June 2013. https://www.researchgate.net/publication/323275029_Francis_Galton's_Composite_Portraits_The_Productive_Failure_of_a_Scientific_Experiment.
- Steyerl, Hito. *How Not to Be Seen: A Fucking Didactic Educational .MOV file* (2013). Digital video. <https://www.artforum.com/video/hito-steyerl-how-not-to-be-seen-a-fucking-didactic-educational-mov-file-2013-51651>.
- . "A Sea of Data: Apophenia and Pattern (Mis-)Recognition." *e-flux Journal* 72 (April 5, 2016). <https://www.e-flux.com/journal/72/60480/a-sea-of-data-apophenia-and-pattern-mis-recognition/>.
- Turk, Matthew. "Over Twenty Years of Eigenface." *ACM Transactions on Multimedia Computing Communications and Applications* 9, no. 1 (October 2013): 1-5. <http://dx.doi.org/10.1145/2490824>.
- Turk, Matthew, and Alex Pentland. "Eigenfaces for Recognition." *Journal of Cognitive Neuroscience* 3, no. 1 (Winter 1991): 71-86.
- Valentine, Ben. "Weaponizing Our Faces: An Interview with Zach Blas." *Vice*, July 10, 2014. https://www.vice.com/en_us/article/vdp/zaa/weaponizing-our-faces-an-interview-with-zach-blas-715.
- Valentine, Tim, Michael B. Lewis, and Peter J. Hills. "Face-Space: A Unifying Concept in Face Recognition Research." *Quarterly Journal of Experimental Psychology* 69, no. 10 (2016). 1996-2019. <https://doi.org/10.1080/17470218.2014.990392>.
- Van Gelder, Hilde, and Helen W. Westgeest. *Photography Theory in Historical Perspective*. Hoboken: Wiley-Blackwell, 2011.
- Virilio, Paul. *The Vision Machine*. Translated by Julie Rose. Bloomington, IN: Indiana University Press, 1994.
- Wayman, James L. "The Scientific Development of Biometrics over the Last 40 Years." In *The History of Information Security: A Comprehensive Handbook*, edited by Karl de Leeuw and Jan Bergstra, 263-74. Amsterdam: Elsevier, 2007.

- Wittgenstein, Ludwig. *Preliminary Studies for the "Philosophical Investigations": Generally Known as The Blue and Brown Books*. Oxford: Basil Blackwell, 1958.
- . *Philosophical Investigations*. Translated by G. E. M. Anscombe, P. M. S. Hacker and J. Schulte. 4th ed. Chichester: Blackwell, 2009.
- Wolthers, Louise. "Introduction: Watching Europe and Beyond – Surveillance, Art and Photography in the New Millennium." In *Watched! Surveillance, Art and Photography*, 8-23. Köln: Walther König, 2016.
- Woodward, John D. Jr.. *Biometrics: Facing Up To Terrorism*. Santa Monica, CA: Rand Corporation, 2001. https://www.rand.org/pubs/issue_papers/IP218.html.
- Ørum, Kristoffer. *Ambivalent Physiognomy*. University of Copenhagen, May 22, 2017. Performance.