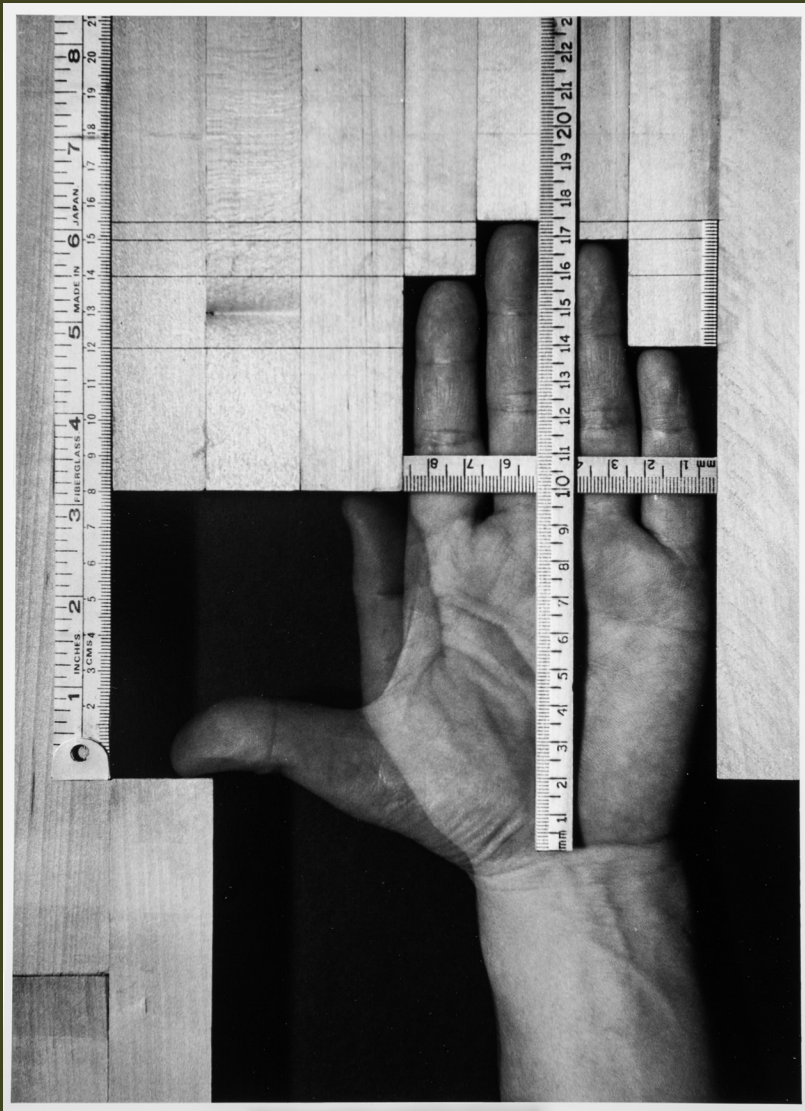


PHOTOGRAPHY AS DATA

Augmentation,
Extraction,
Objectification



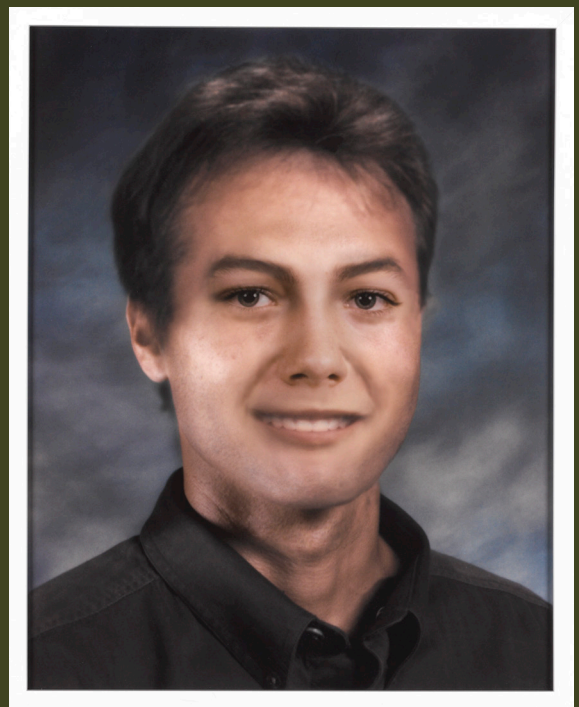
The Frances Lehman Loeb Art Center
April 9 – September 15, 2024
Vassar College

“Pictures are pedagogically, epistemically, and metaphysically inalienable from the goal of science. And yet: we cannot have images because images deceive.”

Peter Galison, “Images Scatter into Data, Data Gather into Images”

In February 2024, one of Germany’s most wanted terrorists, the former Red Army Faction member Daniela Klette, was caught after a 30-year man-hunt—but the police were not the first to find her. An investigative journalist, Michael Colborne, fed Klette’s images into facial recognition software and within 30 minutes found a lead: photographs uploaded by a Capoeira studio in Kreuzberg, Berlin.¹ This relationship between photography and data has become all too familiar recently. Digital images are binary code first and must be interpreted by machines to become visual material. They are, as Trevor Paglen puts it, “fundamentally machine-readable regardless of a human subject,” and this paves the way for new, unforeseeable ways of data surveillance.² But the marriage between photography and data did not start in the digital realm. The two fields share a long history dating back to the beginning of photography itself.

This exhibition uses objects from the permanent collection of the Loeb Art Center to examine the ways in which photography has been read, used, and manipulated as data—quantifiable, measurable “information” about the world. How do these works, most of which predate digital technology by decades, relate to data? How are they read as data? How do they reflect upon practices of collecting data? And what do they tell us about how we are captured in and as data? While today we typically associate the relationship between



Walead Beshty (American b. England, 1976), *Absent Self-Portrait #3 (Age Progressions)*, 2002, Chromogenic print, Purchase, Horace W. Goldsmith Foundation Fund, 2003.34.b

photography and data with servers, digital pixels, and online data mining, this history stretches back to photography’s earliest inventions. We argue that photography has always served as a technology for the augmentation of reality, allowing the human eye to overcome the limitations of vision, and for the extraction of information about people, places, and cultures that are rendered objects of study and consumption.

When we began to formulate the ways that photography is engaged or understood as data, we initially articulated this with three terms, “apparatus,” “object,” and “image,” but our students were fast to recognize the blindspot of these categories. We workshopped the concept of the exhibition with students enrolled in the Fall 2023 Vassar course “Of States and Their Terrorists,” offered by Visiting Assistant Professor Anna Mayer and cross-listed in the departments of German Studies and Media Studies. Students discussed the selection of objects chosen to represent each of these concepts and rightly pointed out a flaw: These terms stress the agency of *photography* while implicitly deemphasizing an essential agent—the people who create and instrumentalize imaging technologies. It is tempting to think about data as disembodied and lacking a human perspective, because the people behind technologies and systems often want to remain invisible. Their gaze is ostensibly not tainted by subjectivity, the result of rationality, an objective viewpoint. The students accurately stated: An examination of the photographic works in this exhibition deeply undermines this notion.

Data is not self-explanatory; it must be gathered, organized, and interpreted in order to hold meaning. Historian of science Peter Galison writes that “pictures are pedagogically, epistemically, and metaphysically inalienable from the goal of science itself.”³ He outlines the predicament of reading images as scientific information: On the one hand, the image helps us to comprehend and make sense of the world. It renders visible the invisible, enabling the viewers to access a visual intuition that Galison compares with pattern recognition—a concept that is captured by the German term *Anschaulichkeit* (“vivid clarity,” roughly translated). And yet on the other hand, images rou-



Stephanie Syjuco (Filipino-American, b. 1974), *Cargo Cults (Head Bundle)*, 2018, Archival pigment print, mounted to aluminum, Purchase, Advisory Council for Photography, 2021.33

tinely deceive us. Every medium processes, and therefore transforms, what is communicated. An image is an artificial construct that distorts, and as humans, we are easily duped. This tension echoes throughout the works in this exhibition. They engage the capabilities of the photographic apparatus and at the same time, negotiate the limitations and biases inherent in the medium. As a tool of science, law, and entertainment, photography confers and substantiates preexisting ideologies rather than questions them. Photographs from the nineteenth and twentieth centuries, as the works in our exhibition show, prefigured contemporary discussions about skewed data and machine learning, such as the algorithmic biases embedded in digital databases that have led to the inability of cameras to detect the faces of women of color because the algorithms were primarily trained on those of white men.

We offer two provocations for exploring the relationship between photography and data, each represented by a selection of objects in one gallery:

1. Photography is a means of augmentation.

Photography penetrates surfaces and atmospheres, slows down or speeds up time, and allows us to see in ways that would be impossible without lens-based technology or photographic chemistry. Photographic augmentation has enabled us to create otherwise unthinkable images.

In the early twentieth century, photography was no longer novel but still remarkable as a modern technology that revolutionized human vision. In *Civilization and Its Discontents* (1930), Sigmund Freud went so far as to claim that humans created “a kind of prosthetic God. When [man] puts on all his auxiliary organs he is truly magnificent,” he marveled.⁴ Freud suggested optical technology as a path to challenge and overcome the physical limitations of the body and to enhance our existence. “[B]y means of spectacles [man] corrects defects in the lens of his own eye; by means of the telescope he sees into the far distance; and by means of the microscope he overcomes the limits of visibility set by the structure of his retina.”⁵ Lenses are a tool of mediation, which fundamentally changed how human beings relate to space, and photography enabled us to isolate these moments in time. “In the photographic camera [man] has created an instrument which retains the fleeting visual impressions,” wrote Freud. Perhaps even more significant than the ways in which photography actually augmented our experiences of the world was the way its invention ushered in the *belief* in the power of lens-based augmentation.



Anna Atkins (English, 1799-1871), *Ptelea trifoliata* [Wafer ash], c. 1845, Cyanotype, Purchase, E. Powis and Anne Keating Jones, class of 1943, Fund, 1983.24

Photographic augmentation of human vision has taken many forms for many purposes: British botanist Anna Atkins, one of the earliest users of the medium, made cameraless images in the mid-nineteenth century by placing plant specimens onto photosensitized paper, fixed through exposure to light, thereby revolutionizing scientific illustration. Photographs from the early twentieth century by Andreas Feininger and Harold Edgerton show how the camera can create illusions of stopping or extending time through the manipulation of shutter speed. In the early twenty-first century, artists Doug Rickard and Walead Beshty have stretched the possibilities of images made by machines. Rickard appropriates screen shots of stitched-together images on Google Earth, offering them as uncanny cityscapes,

and Beshty creates fictional self-portraits with technology created to digitally “age” pictures of missing persons. Yet machine-made photography was not new twenty years ago: In 1966, one of the first images of the Earth from lunar orbit was made by the robotic, uncrewed spacecraft Orbiter 1. The spacecraft was equipped with a camera using two lenses: a narrow-angle, high-resolution lens and a wide-angle, medium-resolution lens. Simultaneous exposures taken with each lens were captured on a single roll of film to create a composite image that was processed and scanned on the spacecraft and sent back to Earth.

Today we are ever expanding the frontier that Freud described. In 2023, the Nobel Prize in Physics was awarded for the study of electrons. Three scientists showed that “pulses of light so short that they are measured in attoseconds [...] can be used to provide images of processes in-



side atoms and molecules.”⁶ The laureates’ image technology rendered a new microcosm accessible to the human eye. But lens-based technology is also part of political agendas. Espionage still relies on taking images of foreign nations, penetrating our hazy atmosphere, and governments still invest money in the development of lenses that act as prosthetic surveillants. The politics that are inscribed in photography will become ever more pronounced in our next section when the humans are the object of the camera.



Top: Doug Rickard (American, 1968 - 2021), #40.805716, New York City, NY. 2009, 2011, Pigmented inkjet print, Purchase, Advisory Council for Photography, 2013.12 | Bottom: Lunar Orbiter I (American, 1966), *First View of the Earth and the Moon*, 1966, Gelatin silver print; printed later, Purchase, Horace W. Goldsmith Foundation Fund, 2002.30

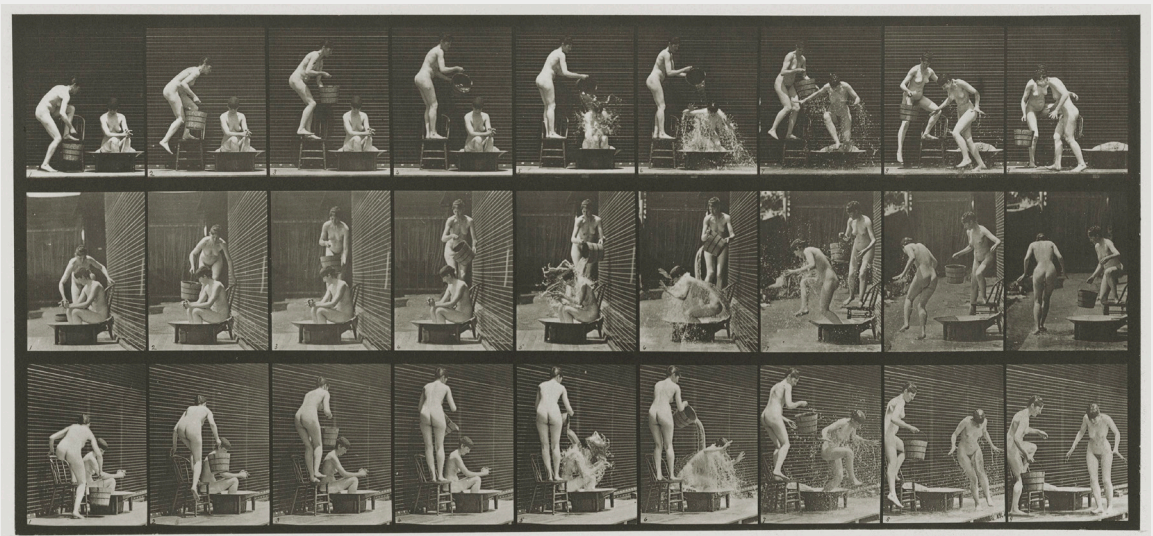
2. Photography is a tool for extraction and objectification.

Photographic images are extracted and examined as data, establishing a relationship between the image and the world beyond the representation, and conferring worldviews and ideologies. Understood as data, photographic images render subjects as objects.

With its earliest inventions, photography was recognized as useful for its power to turn subjects—especially people and places—into images that could circulate far and wide. The scientific and entertainment values of photography accrued simultaneously: Just as photographs became popular as a form of surrogate tourism, allowing white Europeans to access “exotic” places their governments had colonized and which they would likely never visit, so did ethnographic images serve to confer and make tangible pseudoscientific ideas about racial hierarchy. Ethnographic photographers used techniques of composition and framing to decontextualize their subjects and extract images like scientific specimens. In the United States, Indigenous Americans were pictured by photographers like Benjamin S. Hopkins and John

K. Rose as a “vanishing race.” Likewise, European photographers traveling in the Middle East, such as Francis Frith and Francis Bedford, depicted cultural sites as “ruins” of cultures in decline. These images were trusted as evidence of a hierarchy that stems back to the age of enlightenment and racistly places white Europeans at the top. The object of the camera is framed as culturally inferior, and the photograph is treated as data about “ancient” and “primitive” peoples.

A structure that is complicit in this endeavor is the grid. The relationship between the photograph and what is beyond the frame must be established for the visual representation to be read as data. In architectural blueprints, for example, the “scale” in one corner of the paper defines how marks made/information presented on a two-dimensional drawing surface is scaled in relation to the actual building. The structure that facilitates this undertaking is the grid. Jim Dow’s photograph of wooden card catalogs in the Vassar Library shows a grid that enables the reader to process information, while the symmetry of the photograph



Eadweard Muybridge (American, b. England 1830 - 1904), *Animal Locomotion* (plate 408, women with bucket of water), 1887, Collotype, Purchase, Betsy Mudge Wilson, class of 1956, Memorial Fund and Timothy Cole Fund, 1976.37

establishes a central viewpoint, the window in the background. The central perspective is not only a position of visual framing, thinking of Alberti's "velum" or Albrecht Dürer's gridded window frame, but also one of power. The camera in Ken Heyman's photograph is positioned slightly above a cluster of cubicles, overlooking workers while they are trapped within the structure. The image reflects on the exploitation of capitalist outsourcing of labor that we are still familiar with today. Capturing human beings, the grid structure becomes a fundamental tool of colonialist practices. The first grid in Eadweard Muybridge's *Animal Locomotion* (1887) occurred behind the Black athlete Ben Bailey.⁷ And the female figures, lightly clothed and bathing each other, equally testify to the heterosexual white male gaze behind the camera. Athena Tacha, photographing her students' ears at Oberlin College, satirizes the idea of "collecting" human specimens, nodding to the visual language of biological racism that we recognize in grid structures. Kenji Nakahashi similarly pokes fun at the measurement of the human body as a tool of scientific understanding. Stephanie Syjuco reappropriates tropes of ethnographic portraiture. Her series title *Cargo Cults* and the price tags visible in the photograph place it in the context of the exploitation inherent in our current economic system, an extension of colonialism's reach into the twenty-first century.

Technological innovation is rooted in warfare, and our prosthetics, to use Freud's term again, are not objective tools, but laden with biases. "This is a resolution target," says a disembodied voice in Hito Steyerl's video *How Not to Be Seen: A Fucking Didactic Educational .MOV File*, cutting from a portable sign in a studio space to a cracked patch of concrete on a military base.⁸ Both share the same pattern of numbered stripes, which in the 1950s was invented for aerial war photography. Steyerl reminds viewers that our cultural productions are reliant on devices that carry an agenda. Her satirical film, as the title already implies, eventually grapples with how one can escape being captured: How can we not be seen? How can we not become objects of the grid or of the camera lens? How can we not be recorded in photography as data? Steyerl does not leave us with a solution, nor does this exhibition. But looking at these works, we can reevaluate how we relate to the practice of making and reading images. Photography's history—and its contemporary practice among artists—demonstrates the extent to which we must always ask: Can photography ever be understood as data apart from ideology? And where does this leave us now that most of our images *are* data?

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Endnotes

1. Joscha Westerkamp, "Michael Colborne über Daniela Klette: 'Ich empfehle euch dringend, diese Spur zu verfolgen,'" *Die Zeit*, February 28, 2024.
2. Trevor Paglen, "Invisible Images (Your Pictures Are Looking at You)," *The New Inquiry* (blog), December 8, 2016
3. Peter Galison, "Images Scattered into Data, Data Gathered into Images," in *Iconoclasm: Beyond the Image Wars in Science, Religion, and Art* (Cambridge: MIT Press, 2002), 300.
4. Sigmund Freud, *The Future of an Illusion: Civilization and Its Discontents, and Other Works* (Hogarth Press and the Institute of Psycho-Analysis, 1961), 92.
5. Freud, 90f.
6. "The Nobel Prize in Physics 2023," [NobelPrize.org](https://www.nobelprize.org), accessed November 7, 2023.
7. cf. Marta Braun, *Eadweard Muybridge* (London: Reaktion Books, 2010), 192–96.
8. Hito Steyerl, *How Not to Be Seen: A Fucking Didactic Educational .MOV File*, 2013, 00:00:58.



Front cover:

Kenji Nakahashi
(Japanese, 1947 - 2017),
My Left Hand, 1991,
Gelatin silver print, printed 1992,
Anonymous gift in memory of
Kenji Nakahashi, 2022.42.12

Back cover:

Athena Tacha
(American b. Greece, 1936),
Ears, 1970-1975, 40 chromogenic
prints, trimmed, glued to
rag board, Purchase, Louise
Woodruff Johnston, class of
1922, Fund, 1975.14

This publication accompanies the exhibition *Photography as Data: Augmentation, Extraction, Objectification* at the Frances Lehman Loeb Art Gallery, Vassar College, Poughkeepsie, NY. This exhibition is presented in two complementary parts: Part 1 opens on April 9, 2024 in the Hoene Hoy Photography Gallery, a space dedicated to exhibiting photography from the Loeb's permanent collection, ensuring that photographs are always on view. Part 2 opens on April 25, 2024 in the downstairs galleries. Both remain on view until September 15, 2024.

This exhibition is generously supported by the Hoene Hoy Photography Fund.

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