

## Special Theme

### Landscape Memories, Archival Ecologies

# Introduction: Histories of Extraction, Toxicity, and River Ghosts on and Beyond the Page

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DOI: [https://doi.org/10.51002/trajectoria\\_025\\_02](https://doi.org/10.51002/trajectoria_025_02)

(Published March 27, 2025)

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## Abstract

This editorial introduction contextualizes three multimodal interventions that take seriously ethnographic methods while also emphasizing the potential of experimentation. It does so by describing how the authors of the pieces included in this special issue interact with still and moving images—how they take, collect, print, and juxtapose these visual traces—to produce (audio)visual reflections that explore how humans interact with landscapes affected by histories of toxicity, extraction, and pollution. It argues that the authors' sensorial engagements with rivers, deserts, and arctic territories make it possible to understand more complexly how communities make sense of climate crisis and its everyday effects. Given that the authors and image-makers showcased in this special issue work across different media forms—from the filmic to the photographic, from the digital to the analogue—the text is also a reflection on the potential of multimodal scholarship and the role of platforms and initiatives that make it possible to make public work that straddles the ethnographic and the aesthetic. Finally, this introduction considers how multimodal anthropological scholarship can invent new ways to visually evidence the depth and breadth of ecological crisis, as well as the urgency with which we should consider how

ecological violence operates socially and politically, but also visually and textually. Here landscape and ecology—memory practices and archival interventions—all serve as a point of departure for rethinking the transformative potential of visual ethnographic methodologies that—be it in or beyond the page—make visible and narratable the violence of extraction and the social value of engaging with environments and ecologies in more sensorial and active ways.

**Key Words:** landscape memories, archives, extraction, multimodality, photo essay, the page

## Introduction

- 1 To trace the history of the photo essay is to explore how shifts in photographic imaging technologies have been harnessed to produce knowledge in the public sphere. In Europe and the US, the photo essay can be traced to the heyday of the picture press and the proliferation of print magazines such as *LIFE* and *Vu* in the mid-twentieth century (See Writing with Light Editorial Collective 2022). As a specific visual form, the photo essay emphasizes the narrative potential of photographs and their presentation on the page.<sup>1)</sup> Visual repetition, seriality, graphic design, and the interplay between word and image come together to tell stories, indeed, to produce knowledge (Douglas 2022). In many instances, the emergence of the photo essay has been and continues to be entangled with the history of documentary photography, its emphasis on indexicality, and the sense that photographs can evidence and communicate the unraveling of ‘real’ and ‘true’ events. Responding to what could be described as the multimodal and digital turns in the social sciences, particularly in the US and Europe, visual anthropologists have returned to the photo essay as a site for exploring what forms of social and human experience can be communicated by experimenting with the possibilities and, even, the limits of this visual form.<sup>2)</sup> In our digital present, where images are circulated and consumed in ways that often distance images from the context surrounding their production, the photo essay directs our attention to other ways of viewing, consuming, and engaging with photographic images. It also foregrounds how images, text, and their placement on the page can be used to communicate human experience in ways that bridge the textual and the non-textual. This introductory text and the photo essays that follow it invite us to consider how visual ethnographic practices operate on and beyond the page by illustrating this form’s potential and its limitations. While these junctures have been analyzed in other fields, particularly in writing on photography and from the disciplines of visual culture studies, media studies, and journalism, they have particular valence in anthropology, which increasingly engages with multimodality as an opportunity for expanding how anthropologists can produce knowledge and where and to whom they can circulate these forms.
- 2 This essay and the multimodal contributions included in this special issue are a reflection on and theorization of what it means to engage with the photo essay in anthropology. By extension, these interventions are a point of inflection for considering the ethnographic potential of experimenting with images,

text, and their placement on the page, be it the page of a print magazine, the digital page of a PDF, or a webpage. Recent literature in visual anthropology describes multimodality as a form of “invitation” (Collins et al. 2017) and “invention” (Dattareyan & Marrero-Guillamón 2019), a mode of engagement that emphasizes “process rather than outcome” (Varzi 2018). The call to engage with multimodality is a provocation, an appeal to what is afforded by experimenting with ethnographic methods and forms of knowledge production that extend beyond the textual or that bring the textual and non-textual into contact. In formal terms, multimodality refers to ethnographies that work across multiple media. However, in practice, the term has become a catchphrase often used to denote any anthropological research product that uses visual, digital, sensorial, or collaborative approaches to non-textual forms as a vehicle for producing and sharing knowledge. While anthropological multimodality is frequently sidelined from debates in practice-based artistic research, curatorial studies, and other disciplines that engage with visual media practices, it has much to offer these other fields: specifically, its ability to take seriously the idea that images and technologies can be approached not only as objects as study, but also as tools for producing knowledge that is more polyvocal and inclusive. It does so by providing modes of practice that engage with and hold space for the voices of our research collaborators. By extension, it serves as a reflective critique regarding how such anthropological knowledge is produced and circulated in the first place.

- 3 Despite these important contributions, the outlets where such work can be showcased in ways legible to the academy are often few and far between. While the digital seems to promise the broadening of alternative publication platforms for non-textual projects, changes in academic publishing make it difficult to produce and showcase non-textual works (DeAngelo & Douglas 2022). Furthermore, the disjuncture between how image-based scholarship and practice-based artistic research circulate and how they are recognized institutionally contributes to an academic landscape that recognizes the invitation to invent without offering the platforms or outlets equipped to showcase this type of work. In sum, digital publishing, while promising, does not always lead to a broader circulation of image-driven scholarship. In fact, it has often failed to ensure the emergence of more accessible, flexible platforms for multimodal projects. For example, in my tenure as the Co-Editor-in-Chief of *Visual Anthropology Review*, the move to digital only publication has coincided with the standardization of publication formats, thus making it almost impossible for our editorial team to continue to publish peer-reviewed Page Features, where image-driven scholarship has been assessed not only for its theoretical and methodological content but also its exploration of layout, design, and the relationship between image and text. While the digital does make it possible to showcase multimodal projects, as is illustrated by editorial-curatorial initiatives like *TRAJECTORIA*, *Writing with Light Magazine*, and *Limn*, the strictures of academic publishing make it difficult to publish and circulate these projects in ways that reach academic and non-academic audiences, while also meeting publication metrics required by universities and research institutions. Similarly, very few academic journals understand how open access policies, while valuable for their ability to make scholarship available and mobile, often do not take into account specific ethical concerns about how images circulate, the permissions needed to ensure that such circulation meets the needs of image-makers and their interlocutors and subjects. In my experience, producing image-driven work and maintaining platforms where multimodal outputs can be shared requires labor, publishing infrastructures, alternative funding models, and care.<sup>3)</sup> This special issue is both a reflection on and contes-

tation of these epistemological, aesthetic, ethical, and technological dilemmas. It is also a recognition of the crucial importance of spaces, like those provided by *TRAJECTORIA*, where image-driven scholarship is a serious, legitimate creative endeavor valued for what it contributes to debates in and beyond anthropology.

- 4 The multimodal interventions that follow are works first developed in a Multimodal Training School held at ReCNTR at Leiden University in the summer of 2023. Organized by visual anthropologists Craig Campbell, Darcie DeAngelo, Mark Westmoreland, and myself, the workshop explored the photo essay as a generative form for thinking about not only how we *produce* image-driven ethnographic research, but also how such multimodal experiments *push forward* ethnographic theory and method. Exploring the theme “Archival Memories: Image, Sequence, Knowledge,” the workshop brought together anthropologists and image-makers—and notably, researching practitioners who engage with anthropology *with* and *through* visual practices—to further develop projects rooted in archival explorations. Diverse in terms of scope and subject matter, the selected projects drew on multimodal approaches to archives, both official institutional collections as well as private, personal, or conceptual ones understood or described as archives. After receiving more than 75 proposals, a number that speaks to both the interest in this kind of research output and the need for more collaborative spaces where image-driven scholarship can be workshopped, participants were asked to prepare photo essay prototypes: works in progress that engaged with the photo essay as a possible form or point of departure for thinking about images, seriality, and visual knowledge production.
- 5 Products of this encounter, the three visual essays included in this special issue of *TRAJECTORIA* explore histories of extraction and toxicity as well as sensorial and affective engagements with ecologies and landscapes facing forms of change linked to the contemporary climate crisis and its colonial and capitalistic historical underpinnings. Given that the authors and image-makers showcased in this special issue work across different media forms—from the filmic to the photographic, from the digital to the analogue—the projects included here contribute to rethinking the potential of multimodal scholarship and the role of platforms, like *TRAJECTORIA*, that make it possible to make public work that straddles the ethnographic and the aesthetic. The visual essays that follow take seriously ethnographic methods while also emphasizing the potential of experimentation, where images are taken, collected, printed, and juxtaposed to produce (audio)visual reflections that explore how humans interact with landscapes. Similarly, it takes seriously how sensorial engagements with rivers, deserts, and arctic territories make it possible to understand more complexly how communities make sense of climate crisis and its everyday effects. By extension, it calls attention to the how knowledge production practices, including multimodal ones, are also implicated in ecological crisis both historically and in the here and now. Working in different registers and across contexts, the following visual essays emphasize the power of images harnessed and deployed in projects that have sought to colonize, control, and domesticate wild territories. They also illustrate how imaging technologies, both past and present, are entangled with practices of extraction. In this sense, these works demonstrate the collective need to invent new ways to visually depict and evidence the depth and breadth of ecological crisis, as well as the urgency with which we should consider how ecological violence operates socially and politically, but also visually and textually. Here landscape and ecology—memory practices and archival interven-

tions—all serve as a point of departure for rethinking the transformative potential of visual ethnographic methodologies that—be it in or beyond the page—make visible and narratable the violence of extraction and the social and human value of engaging with environments and ecologies in more sensorial and active ways.

- 6 In “Parallel Archives: Photographic Silver and its Landscapes,” anthropologist and visual artist Alice Cazenave explores the historical and contemporary entanglements between analogue photography and silver extraction by “looking to the ground.” Drawing on ethnographic fieldwork conducted in and around Silver City, Nevada, Cazenave approaches landscape and plant ecology as (potential) image archives, sites where histories of extraction and toxicity can be traced, but also made visible in image form. Here, experiments with plant-based chemistry are methodological vehicles that make it possible to sensorially engage with the materiality of the surrounding desert landscape and “the agencies of ecologies touched by silver.” Throughout the piece, word and image work together to narrate how experiments with the chemical properties of plants autochthonous to the local landscape are points of departure for unpacking the social, material, and chemical lives of the metals, minerals, and salts integral to analogue photography and photographic image-making. Articulating the ethos of the Sustainable Darkroom, “an artist-led, research community that develops low-toxicity chemistries and practices in photography” (2024), Cazenave formulates an ethnographic visual practice that straddles Jussi Parikka’s (2015) geological-ecological approach to media technologies and Max Liboiron’s (2021) framework for decolonizing scientific research methods.<sup>4)</sup> In this maneuver, she argues that making evident the legacies of Settler-colonial extractivism inherent to photographic silver and, thus, photography, is as much about documenting the desert landscape, as it is about understanding the complex chemical and material afterlives of the toxic substances left by decades of industrial extraction.
- 7 In Cazenave’s contribution, the botanical properties of plants—particularly those generated from Yellow Rabbitbrush, a plant whose biological compounds can be harnessed to produce low-toxicity photo chemistries—are the agents that literally *develop* and *bring into view* Cazenave’s analogue prints. Both the narrative description of these experiments and the grainy, patchy, ghost-like images that they produce ask us to pause on the entanglements between histories of toxicity and forms of plant sociality. In her description of her detained observation of the desert landscape, Cazenave identifies the willows that mark the edges of a thirsty riverbed. The shrubby trees provide a botanical solution to the persistence of chemical toxins. Without human intervention and on their own accord, they detoxify the surrounding soil by soaking up the mercury overspill caused by silver extraction, thereby, remediating the deleterious effects of silver mining by converting toxicity into something else. In this way, the author notes, “Silver is not extracted from abstract spaces, but spaces that are animated and responsive... These entanglements remind us that the extraction of silver is an inscription on the desert, and the desert is a landscape of affect.”
- 8 The most notable aspect of this multimodal contemplation on photography and its material and chemical histories is the way in which botanical experimentation drives the gaze to something beyond the image: to discovery and accident, to imperfection and coincidence. When juxtaposed with archival images that document the emergence and rise of the US silver industry, photographs developed with

local plants appear overexposed and, at times, granulated. The silver prints made digital scans point to practices of production extant of any care for archival standards or immaculate aesthetic objectives. Instead, they emphasize another kind of attentiveness, a form of ecological care sensitive to the chemical and material afterlives of silver extraction. In doing so, they accentuate the materiality of analogue photography, directing our attention to something beyond the image: to local ecologies, to intersecting chemical and botanical histories, to the legacies of settler-colonialism and its entanglements with image-making technologies and practices. Overlapping images—historical photographs, maps, color digital snaps, and prints produced with plant-based chemicals—tell complex histories of toxicity,



**Figure 1** Image from “Parallel Archives: Photographic Silver and Its Landscapes” by Alice Cazenave.

ecology, and human-plant sociality that might otherwise go unseen.

- 9 Similarly, Beatriz de Almeida's photo essay "A Complicated Portrait of the Portuguese River Paiva: A Photo-Essay" makes visible what is imperceptible to the naked eye. A photo-ethnography of the Paiva River, its flow, and its "complicated liquid reality," the piece uses underwater photography, river chemistry, and collage to explore the forms of sociality particular to this watery terrain. Engaging with anthropological theorizations of landscape and sensory ethnographic methods, de Almeida experiments with photographic image-making to "[imagine] new entanglements between humans and their environments." Echoing Cazenave's chemical explorations, de Almeida's multimodal essay approaches photography and its processes of production as a realm of invention where the camera's mechanical capabilities, together with the chemical properties of water and the potential affordances of photographic collage, become a means for "harnessing photography's potential for visualization rather than representation." In this approach, the river and the photographic practices deployed to study it are participants in acts of creation and visualization, thus making it possible to see the river environment differently.
- 10 Like Cazenave's embrace of photographic chance and image imperfection, de Almeida develops a methodology that does not chide away from failure. Describing "failed images" and "helpful counter-practices to visual research," the author considers how blurry, underdeveloped, and unclear images are also imprints, visual traces, indeed "sensory reflections on flow" (Wagner and Jackna 2018). In conversation with Andrea Ballestero's reexamination of *what water is* (2019: 406) and recent debates regarding "the ghostly forms that have emerged from past encounters between people, plants, animals, and soil" (Tsing et al. 2017: G2), de Almeida approaches photography, its processes of production, and the placement of images on the page as a conduit towards accessing and analyzing the river's underwater social life. Drawing on the idea that "anthropogenic landscapes are also haunted by imagined futures" (Ibid: G2), photographic and visual experimentation also become vehicles for traversing different temporalities, where the intersections between past, present, and future are made all the more apparent by ghostly, haunting presences. Sociologist Avery Gordon, in her treatise on haunting and the sociological imagination, writes, "Following the ghosts is about making a contact that changes you and refashions the social relations in which you are located" (2008: 22). In de Almeida's exploration of mechanical, technological, and chemical co-creation, experimental photography and its associated practices facilitate this refashioning of social relations. In this methodological and conceptual maneuver, the interactions between human and non-human entities—between water and ghosts—are indicative of complex forms of sociality not easily perceptible or photographically evident in the Anthropocene.
- 11 De Almeida's visual ethnographic experiment is most engaging in its insistence on the productivity of photographic failure and its translation onto the page. Collecting and intervening in what she calls "failed traces"—transforming underwater photographic documentation into muted yet colorful collage—make it possible to reconstruct, indeed reimagine "the landscape on the page." From there, she argues, these landscapes can be "(re)experienced," providing a window onto "more sensorial perspectives" regarding river's complex social life. Here photography is not celebrated for its indexical capacities, nor its "mechanical objectivity" (Daston & Galison 2007). Instead, the photo essay—in both its formal characteristics and in the practices of production that contribute to its design—provides forms of visibility

and possibility. Acts of co-creation between human and non-human entities make it possible to engage with water landscapes and river ghosts not as abstract entities, but rather as social actors active in an everchanging environment. Experimentation with photography, but also with modes of ethnographic analysis, reveal other ways of being in and engaging with landscapes long affected by ecological crisis.



**Figure 2** Photo collage from “A Complicated Portrait of the Portuguese River Paiva: A Photo-Essay” by Beatriz de Almeida.



- 12 If de Almeida pushes the limits of anthropology *on* the page, anthropologist and artist Andrea Bordoli pushes them *beyond* it. In “Remediating Visual Extractivism and the Geological Archive: Multimodal Perspectives from Subarctic Québec,” Bordoli combines aerial photography, technical-scientific documentation, visual interposition, and video to engage with the mining landscape of Shefferville and the adjacent Innu community of Matimekush Lac-John in Eastern Canada. Working across media, Bordoli uses multimodality to intervene in and make sense of the “layered remnants of Canadian science of a specific settler world.” Juxtaposing the material and visual remnants of Canadian science—and, thus, of a particularly Western modernity-knowledge nexus—Bordoli draws on the archival collections left by the now defunct McGill Subarctic Research Station (MSRS) to map the “ongoing and multilayered impacts that extractive operations have on the territory.” Inhabiting the territories where mining, ecology, and Settler-Indigenous relationships overlap, Bordoli considers not only what it means to enact visual methodologies but also how visual practices can engender other modes of producing knowledge about complex, violent histories of extraction that continue to exert force on Indigenous lands and their communities.
- 13 Part photo essay, part film essay, part something else, Bordoli’s intervention engages with visual collections of the MSRS archive as a potential trace capable of revealing a specific “history of extraction with its own visuality and aesthetics.” Building on literature that describes this “visual dimension” of extractive practices (Gómez Barris 2016; 2017; Serafini 2023), the author coins the term *visual extractivism* to describe and locate the complex ways in which images documenting the hyper-exploitation of natural resources are circulated, activated, and used. The author pays close attention to the images kept within the MSRS archive, which he describes as a collection of “aerial views, large panoramic perspectives, smaller analogue photographs and polaroids” documenting extractive processes. These “operational images” (Farocki 2000; Parikka 2023; Paglen 2014)—images that execute specific technical functions rather than visual, representational, or aesthetic ones—are fascinating to observe. As Bordoli demonstrates, examining how these images are used (how they operate) reveals how these visual traces can echo, reiterate, and reify extraction’s violent and “exclusionary narratives.” At the same time, making images also serves as a call to recognize these narratives and to collectively undo them.
- 14 Evoking similar forms of experimentation described by Cazenave and de Almeida, Bordoli considers how ethnographic practices rooted in visual and artistic strategies can be utilized to recognize these extractive tropes, but also to subvert them. He does so by describing his artistic research methodology as a kind of “remediation.” Observing the word’s complex usage within the mining context, the author notes its use as a descriptor of the aftermath of extractive practices: the forms of technical cleanup, restoration, and indeed damage control applied to “post-extractive environments.” Turning the word on its head, he asks what it might mean if remediation could be used to denote the forms of repair, mediation, reconciliation, and care that might result in “exposing and problematizing visual extractivism.” Here, “legibility” is not, as James Scott (1998) would argue, an extension of modern statecraft and governmentality, but rather a form of evidencing extractive violence. It is also, as Bordoli states, a multimodal practice that can bring into being “renewed affective perception.” Here extracting, appropriating, indeed redeploing images of extraction is as much about evidencing the violence of colonial and ecological exploitation, as it is about reimagining how these images can be activated in ways that

recognize and repair these histories. A visual essay that engages with different forms of image-making—from the photographic to the filmic—to consider the limits of the page, Bordoli’s work with and through visual artifacts points to what multimodal methodologies and experimental forms of presentation might afford in opening discussion about ecological crisis. Here, images—both their extraction and their production—are a mode of reinventing how we understand, see, and indeed narrate the histories and implications of colonial extraction.



**Figure 3 and 4** Juxtaposed found images from “Remediating Visual Extractivism and the Geological Archive: Multimodal Perspectives from Subarctic Québec” by Andrea Bordoli.

15 I close this editorial introduction with a suggestion. Reading and viewing these (audio)visual essays is a portal to reflecting on the traces left by long and complex histories of toxicity, ecological crisis, and extraction. They provide a window onto new ethnographic and visual approaches to engaging with landscape. They are also creative interventions, attempts to activate image-making practices in ways that will make visible these often-times invisible ecological histories. They illustrate what is possible when thinking anthropologically, but also creatively, about how to capture how we, the communities that we engage with, and the landscapes we inhabit might allow us to retrace the emergence of ecological crisis while also reimagining and reinventing other possible futures.

## **Acknowledgements**

This essay, along with the accompanying multimodal interventions that it introduces, are the product of the TRACTS Multimodal Training School "Archival Memories: Image, Sequence, Knowledge" hosted by ReCNTR at Leiden University in collaboration with the Centre for Visual Anthropology at Goldsmiths, University of London, and the Departments of Anthropology at the University of Texas and the University of Oklahoma. The event was facilitated by TRACTS: Trace as a research agenda for climate change, technology studies, and social justice (COST Action CA20134), supported by the European Cooperation in Science and Technology. I am grateful to the participants and to my colleagues and fellow workshop leaders Craig Campbell, Darcie DeAngelo, and Mark Westmoreland who made this event an important site for the exchange of ideas, practices, and modes of seeing. Reimagining visual anthropology and its possible futures is a collaborative effort. Without these spaces, we would be lost. I would also like to thank the peer reviewers and the *TRAJECTORIA* editorial team for creating and maintaining this important space for multimodal publishing.

## **Notes**

- 1) I locate the multimodal turn in American and European anthropology to a moment in the late 2010s when visual anthropologists began to explore how image-driven scholarship produced through ethnographic methodologies could engage with multiple media forms. Reflecting on how shifts that digital technologies and infrastructures were making it possible for anthropologists to work across media, this turn reasserted focus on how different visual and non-textual forms might expand how anthropological knowledge was being communicated and circulated. While these debates were not new to the subdiscipline of visual anthropology, the multimodal turn refers to this (ongoing) point of inflection, where changes in digital technologies, their proliferation, and the ease with which they could be learned and used also coincided with the embrace of a new language that would expand the visual to encompass forms beyond film and photography, including the sensorial, the sonic or auditory, illustration and drawing, painting, and the intersection of these different forms of anthropological knowledge production. For more discussions of this see Collins et al. 2017; Dattatreya & Marrero-Guillamón 2019; Sadre-Orafai & McDonald 2020; Takaragawa et al. 2019; Takaragawa et al. 2020; Varzi 2018; Westmoreland 2022.
- 2) *LIFE* and *Vu* were two image-driven publications that introduced European and American audiences to the photo essay as a form. Combining documentary photography and textual narrative, the publications circulated locally and internationally and introduced a new genre of journalism rooted in visual storytelling. Founded in 1928 by Lucien Vogel, *Vu* was a weekly French publication concerned with modernist and avant-garde tendencies of the interwar period. Its engagement with the photo essay was highly influential in both journalism and art. Launched in 1936 and showcasing the work of photographers like Margaret Bourke-White, W. Eugene Smith, and Gordon Parks, *LIFE* combined powerful images with minimal text, thus, radically repositioning photographers' contributions to the genre of journalism. Drawing on my ongoing participation in and collaboration with the Writing with Light Collective, I approach the photo essay as an extension of this history. It is important to note that, in some ways, this approach to the photo essay is limited to an exploration of publishing practices in the US and Europe. Further exploration of these histories in other contexts, particularly in Asia, Africa, and Latin America

is an area for further research. Concurrently, given the global circulation of these publications, it is important to consider how this specific genealogy of the photo essay overlaps with, speaks to, and relates to the emergence of the photo essay in other contexts.

- 3) There is much to say about this point. However, I would like to emphasize that creating and sustaining multimodal platforms requires labor, funding, and infrastructures that make it possible for anthropologists to think through issues of design, digital accessibility, and format that require specific kinds of expertise.
- 4) In his book *Geology of Media*, Jussi Parrika describes how media technologies are made up of minerals, metals, and other natural resources. As such, he argues, media technologies are cultural tools, but also productions of ecological and geological entanglements. They are both symbolic and material. Following this logic, Parrika posits, there are very real ecological implications of visual media technologies and their impact on landscapes, ecosystems, and communities. This geological-ecological approach is useful, particularly in visual anthropology, but also in relation to the work being described here, in that it emphasizes the materiality of image-making practices, their relationship with ecologies, and their connection with time. In a similar vein but considering specifically pollution's colonial roots, Max Liboiron, argues that infrastructures are used to exert colonial control over Indigenous land and resources. The author advocates for methodologies committed to refusal, that is the rejection of colonial frameworks and practices that exploit communities and environments and the embrace of practices of care, accountability, and responsibility. Both stances are present in Cazenave's engagement with photographic imaging technologies and their histories, as well as with her negation of such toxic practices.

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