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MACHINIC VISIONS OF THE PLANETARY

Denaturalizing the Image: An Interview with Susan Schuppli

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Introduction

Susan Schuppli's work as an artist-researcher is animated by in-depth investigations into a wide-ranging set of topics that concern our current planetary condition, central among which are war and conflict and environmental disaster and climate change. Her creative projects, which have been exhibited throughout Europe, Asia, and North America, have contributed to an expanded understanding of contemporary evidentiary aesthetics that otherwise evades visibility in the geopolitical and environmental realms. Her book, *Material Witness: Media, Forensics, Evidence* (MIT Press, 2020), explores the evidential role of matter through case studies such as war crimes in Kosovo, radioactive contamination from the Fukushima fallout, and the Deepwater Horizon oil spill in the Gulf of Mexico. Through her work, Schuppli navigates the aesthetic affordances of material and technical phenomena while also grounding them within their historical, scientific, juridical, and ecological contexts.

For this interview with Schuppli in the "Machinic Visions of the Planetary" stream of *Media+Environment*, we focus on machine vision systems and the visuality of data in general in their relation to environmental knowledge at a planetary scale. I spoke to Schuppli specifically about her video artworks and her direct engagement with imaging technologies and data visualization, and then, too, about the sonic dimensions of sound recording. Her unique approach to exploring changed and expressive forms of environments and environmental processes as mediums in themselves—be they oceanic waves, atmospheric circulation, or the composition of ice core samples—addresses the entanglements of representation emanating from technical and environmental sources. The discussion focuses around Schuppli's video

a Lila Lee-Morrison is a writer, scholar and art historian. Her research interests focus on the visual culture of machine vision, intersections of art and technology and socio-political agencies of the image. She has written about the visual politics of drone warfare systems, representations of the body through biometric technologies and on contemporary art practices as sources of theoretical engagement. She graduated a PhD from Lund University in Sweden in Art History and Visual Culture studies with a published dissertation, titled *Portraits of Automated Facial Recognition: On Machinic Ways of Seeing the Face* (Transcript Verlag, 2019) that was recognized as providing a novel perspective at the intersection of visual culture theory, philosophy, computer sciences and art history. She has been invited to give international public talks on subjects ranging from the intersection of art and AI and the instrumentality of contemporary art production in relation to technology. Most recently she has focused her research on the intersections of art, technology, and the environment. She has written for *Artforum*, *Theory, Culture and Society* and been published by MIT Press, Liverpool University Press and Brill Publishing. She is currently a postdoctoral researcher at Lund University on the ERC funded project, "Show & Tell: Scientific representation, algorithmically generated visualizations, and evidence across epistemic cultures," and a Visiting Intersect Fellow at University of Copenhagen.

Still from *Can the Sun Lie?* Susan Schuppli (2014) video, 12:51 minutes. Courtesy of the artist.

artworks *Trace Evidence* (2016), *Can the Sun Lie?* (2014), *Nature Represents Itself* (2018), and *Not Planet Earth* (2021b), all of which engage with historical and future perspectives on visual regimes brought about through climate change. In addition, Schuppli generously shares her experiences of working in the extreme conditions of the Arctic Archipelago and her speculative approach towards the medium of video and the outcome of its capture. The interview features image stills from these works and video clips via links to Schuppli's website. In discussing these works, we broach topics of representation, scale and abstraction and how these figure in her approach towards her video art.

Lila Lee-Morrison: Thank you so much for finding the time to offer this interview for our special themed collection. Your oeuvre engages with three main areas that also interest us: the materiality and physicality of nature, the conditions of imaging technology, and wider sociopolitical contexts of knowledge production around the environment and environmental issues especially concerning climate change and global warming. I am glad for the opportunity to talk with you about the ways in which these three arenas relate, contradict, and perhaps disrupt one another through your work.

Firstly, I understand that your approach to environmental systems has to do with the many ways they *operate as media*. Can you describe the importance of this for you and what you mean when you approach environmental systems in this way?

Susan Schuppli: It's a great question and in some way comes about because of my long-standing research interest in investigating media artifacts and delving into the world of technical matter, in particular within the context of conflict and war, but also including infractions and violations of an environmental nature. So, there has definitely been a progression in my own thinking as to what constitutes a media entity. I've had an interest in analog media and have really tried to understand the different kinds of technical processes that operate. For example, what is the role of chemistry vis-à-vis sunlight in the world of analog image production, of photography? This fundamental interaction between the chemical and the energetic quanta of sunlight produces the condition of the photographic. At least according to the ways in which I understand such media. But those "mediatic" interactions are also happening in the more-than-human realm. For example, the process of photosynthesis in plants produces visible surface effects that are the consequence of chemical interactions with sunlight, but likewise in the ways that hydrocarbon atoms interact with sunlight and water to produce something that we can identify as an oil spill or an oil slick. There is a direct correlation to be drawn between my investigations into media artifacts that were part of scenarios of conflict (photos, videos from war zones) and my more current concerns around climate change, which has expanded the scene of media, if you will, to environments themselves. A definition of media, for me, is less about the material specificity of something and more about the technical processes that are at play.

This evolution in my thinking around media was coupled with the fact that the planet itself has become incredibly encrusted with technology, from remote-sensing satellites that circumnavigate the earth to all kinds of smart sensors that are embedded in much more localized situations. The emergence of a "geo-media-logical" planet—what Peter Haff and others have referred to as a "technofossil assemblage" (Zalasiewicz et al. 2014). As Douglas Kahn (2013) noted in *Earth Sound Earth Signal*, "media's proximity to nature" is not as "counter-intuitive" as one might think, given the electromagnetic energies and currents that have always swathed the earth.

And perhaps the third factor—that I wasn't fully aware of until I started engaging with climate scientists—is the ways in which they themselves describe environmental processes in terms of the rhetorics of data. That came as a bit of a surprise. When an ice core scientist is talking about an ice core, they will say things like, "Ice cores produce the highest resolution dataset that we have of planetary processes," vis-à-vis, say, atmospheric events. Or, "We're trying to extract the signal from the noise." This latter comment was made to me by an atmospheric scientist for whom clouds are considered noise, and their task, as he described it, is to "try and extract the climate signal out of this background strata of noise." It struck me that the ways in which scientists are describing and interacting with earthly materials—what I call "Earth evidence"—has a very strong echo with media practices and studies.

We (artists and scientists) share a similar language, and we also utilize similar kinds of software to process our data and produce our visualizations. There is a tremendous overlap, I would argue, between certain forms of contemporary visual art production, especially in terms of tools and softwares, and ways in which climate scientists are also working. This convergence was something that I didn't fully anticipate, but it emphasized the degree to which we could find areas of common interest, both at the level of the subjects that we're interested in and also methodologically. Media seems one area where I think a practicing artist can meet a climate scientist and that encounter isn't actually going to be all that strange. I say that because my encounters, for example, with the legal sphere (which is another realm of expertise with a highly specialized language and mode of thought) that I've dealt with quite a bit—there, I would say that the points of commonality or convergence of approach, at least from my experience, were not inherent to our mutual fields of practice.

LLM: You've brought up some interesting dichotomies and correlations in terms of art, data, and legal representation. In your larger project on the subject of material witness, and in your video work *Trace Evidence* in particular, you explore the record traces of the nuclear disaster of Chernobyl found in the environment, and the ability of nature and natural material to represent itself and the events that have happened to it (Schuppli 2016, 2020). In this way, you work with various forms of "natural archives." Yet I also see your work as involving an additional layer of "archiving" through the use of video and the imaging apparatus of the camera that you use to capture these events and traces. Can you talk a little about what role the imaging apparatus of the video camera and its parameters plays in your work with this topic?

SS: Another very provocative question, and the way I would answer it would be twofold. On the one hand, every frame is itself an encrypted archive, if you will. Laura U. Marks (2017), who is someone I read years ago, made that very salient point, and it's an idea that I still come back to. Although today I am largely working with archival materials of a natural kind—for example, ice cores extracted from glacial ice sheets. These are definitely viewed as archival matter in the sense that ice stores and preserves information about the earth's ancient climates in its material substrates. Archives, like media, populate the natural sciences and have transformed the languages used to speak about such materials.

In terms of the videos that I make, I do recognize that in some ways, I'm still documenting and recording and telling stories about some of these earth archives. But I haven't been able to work convincingly with the media systems found in nature such as the crystalline lens-based technology that comprises a field of snow, in that every snow crystal is a lens that refracts light. This is an aspiration—maybe just a conceptual aspiration—but nonetheless, how could

I actually collaborate or work with the lens-based system of ice and snow as part of my technological apparatus? I think there's still room for me to take that aspect much further in the practice.

I have to say that my video works at present still largely "look" at some of these materials and events using a perceptual register that is external to them, their inner workings. That being said, in my video practice, I do try and denaturalize these environmental images in order to render the scene slightly strange or to produce a sense of anxiety or unease in the viewer. Denaturalizing the image has become an important part of each project as a way of countering the sensibility of the nature documentary. I really try and make it apparent that a camera and recording device is on the scene—that technology is on the scene. It's something I'm trying to emphasize. The sonic dimension also has a crucial role to play in bringing about this shift.

When I think about a project like [the video work] *Can the Sun Lie?*—in that case, I was doing a lot of small experiments with different translucent materials and projections: working with ice, working with transparencies, trying to create analogues between the so-called "natural world" and the technical world (Schuppli 2014). *Can the Sun Lie?* is dealing with a disputed sunset and with a problematic situation vis-à-vis light as an agent of truth. Light became more than the subject of the video; it was the material with which I was working in the actual manufacturing of the piece. These are moments where the condition that I'm investigating also informs the kind of visual strategies that I'm trying to develop. In short, in answer to your question, there is an effort to make both the machinic nature of an environment and the technical mode of image capture and sound recording explicit. There's also an ambition and a desire to experiment more with alternate technical systems and to think about the ways in which I might actually employ some of these other materials and processes in helping me produce images and sounds.

LLM: When you talk about "denaturalizing the image," it really brings to mind for me your work titled *Not Planet Earth*, the supplementary video to the larger video piece titled *Arctic Archipelago* (Schuppli 2021b, 2021a). It is such an interesting piece because in it, you are exploring the conditions of the image and the imaging apparatus and manipulating, enhancing, and exposing the parameters of the video camera and what it can do in confrontation with the Arctic conditions. You use thermal imaging to represent a thermal inversion that you describe as occurring through climate change and global warming in this area. This concept of "denaturalizing the image" reminds me a bit of W. J. T. Mitchell's critique in his essay on "Imperial Landscape" of how the genre of landscape painting "conceals its own artifice" and

Still from *Can the Sun Lie?* Susan Schuppli (2014) HD video, color with stereo sound, 12:51 minutes. Courtesy of the artist.

Still from *Arctic Archipelago*, Susan Schuppli (2021a) HD video, color with stereo sound, 26:20 minutes. Courtesy of the artist.

is perceived as naturally occurring, like the physical landscape itself.[1] In denaturalizing the image, I see this similar space being made between the representational physicality of nature and its representation through the technologies of its capture. Can you talk a little more about what meaning "denaturalizing the image" has for you in your work?

SS: That particular project, which is the conjoined work of *Arctic Archipelago* and *Not Planet Earth*, came about through a strange opportunity in the midst of the pandemic, where I was able to go to Svalbard for a couple of

1 Referencing Mitchell, who states, "...certain conventions of landscape are forcibly naturalized. Nature and convention... are both differentiated and identified in the medium of landscape. We say 'landscape is nature, not convention' in the same way we say 'landscape is ideal, not real estate,' and for the same reason—to erase the signs of our own constructive activity in the formation of landscape as meaning or value, to produce an art that conceals its own artifice." (Mitchell 2002, 16).

weeks. Something called an "air bridge" opened up between Norway and the UK that allowed travel. I had previously been in conversation with a glaciologist, Miriam Jackson, who at the time was based in Norway. She emailed me to say, "Hey, I'm doing a circumnavigation of Spitsbergen Island on a sailboat and will be looking at all kinds of glaciers. Would you be interested in coming along?" And so I did. And it was a two-week circumnavigation on the sailboat. There was also a lot of crewing, which I didn't expect to do, so my time for filming and recording was actually rather limited, as was [the size of] the boat itself. It's a very small space, and I certainly never had that experience before of actually filming on the ocean with these enormous swells. I wasn't technically set up to deal with that. It was an experience of shooting in this really extraordinary environment, in which there were no other human beings, save those of us on this small sailboat. There were about thirteen of us confronted with this landscape of snow, ice, sky, clouds, water, and that was literally it. I thought, "How am I going to actually work with this material?" I didn't go there with a specific story to tell. I recognize that I was taking a lot of images, shooting a lot of scenes that would probably be quite familiar to anybody who's ever watched one of the BBC documentaries about the Arctic. Images of calving icebergs, melting glaciers, and what have you. I've never had that kind of experience before in my life, and we were, at that point, less than a thousand kilometers from the North Pole. It's not a part of the Circumpolar North, where people actually live. My experience was one in which I was confronted with the fact that I could only shoot what was directly in front of the camera, and that was essentially sky, ice, and water. At the same time, I was very aware of the considerable resources it took to bring someone like me there—the infrastructure that is required to bring a whole bunch of equipment and people there. I was also aware of the histories of extractivism that are part of this Arctic geography and the fact that there are competing sovereignties between Russia and Norway in and around Svalbard. The nuclear fleets of the UK and the Russians are also moving under the sea ice. There is a lot going on in these transformative cryospheric geographies, and I say *transformative* because it's clear that climate change is having a huge impact on the glacial conditions in a place like Svalbard in terms of sea ice retreat and melt. So, my experience was one in which I was very aware of the complex politics that are a part of this environment, and yet none of it was visible within the visual field. The smaller video *Not Planet Earth* I call a footnote came about when I started working with all my so-called outtakes. I felt that there needed to be some aspect of this overall project that makes these other aspects about what's going on explicit even though awareness of the geopolitics that saturates the spaces of Svalbard is not presented in the larger video, *Arctic Archipelago*. That video has no narration, only a musical score that's mixed with my environmental field recordings. *Not Planet Earth* became a response to the perceptual experience that I had. In editing my materials, I thought well, I'm not just going to put all this stuff into the visual

field because it really wasn't my experience. I could have easily added text and maps and included narration, but that seemed slightly disingenuous to the actual experience. My awareness of the things that were going on there somehow didn't coalesce in any perceptible way with what I could see. So, *Not Planet Earth* became my response to that condition: I'm going to move all of that reflection into this smaller piece and produce a footnote so that someone encountering the works can have the headphones on and hear this kind of fairly didactic narration. Or they can take the headphones off and be enveloped in this more ambient musical soundscape [of *Arctic Archipelago*]. In *Arctic Archipelago* I played with something called chromatic aberration, where you pull apart the color spectrum. There are key moments where this beautiful, natural image is seemingly pulled apart. And it's typically in places where you are encountering glacial melt such that the image itself is also being distorted, as is the natural world. I used these small elements within the language of video to signal that something transformative was happening and to produce a certain sense of unease. Bringing in the music also helps produce this effect and gives the piece a certain kind of rhythm but doesn't really ever tell you fully what's at stake.

The last point worth mentioning is that I enjoyed making *Not Planet Earth* because I started to think about all the ways in which the language of film and photography mapped onto the conditions of the cryospheric environment that I was shooting in. For example, I was thinking about lens crystallization at the same time as grappling with the fact that I was dealing with a lot of lens distortion from the spray of the sea and likewise with terms like chromatic aberration, stop-motion, freeze-frame, blue screen, white balance, et cetera. There seemed to be so many terms and concepts from the world of film and photography that had a certain conceptual echo that I could work with. One always needs a structure, so I just gathered all of the terms that were particularly relevant to the context and choose those as my narrative device. All explicit information is moved over into this short didactic piece, whereas *Arctic Archipelago* on its own remains suggestive and ambient. I think they [the two videos] need to be encountered together because on its own, I don't think *Arctic Archipelago* goes far enough to be convincing in terms of a video that's trying to address climate change in that part of the world. I think it needs a bit more of that other information.

LLM: In your videos, there are so many layers of sound that are really amazing. For example, in *Trace Evidence*, I remember hearing the sound of what appears to be a Geiger counter, measuring amounts of nuclear radioactive material that produces a ticking sound. And this is then layered with the sound of running water, which sounds like a river. These two rhythms definitely produce a level of anxiety, and at the same time, their audible merging creates a sense of meaning in terms of informing the viewer of what we see as both naturally occurring and also radioactive or man-made. Somewhat related to this, I also find multiple visual layers appearing in your

Still from *Not Planet Earth*, Susan Schuppli (2021b) HD video, color with stereo sound, 14:24 minutes. Courtesy of the artist.

Still from *Nature Represents Itself*, Susan Schuppli (2018) HD video loop, color with stereo sound, 6:27 minutes. Courtesy of the artist.

work: a combination of "straight documentary"–like archival images and the inclusion of scientific maps and data visualizations but also a lot of abstract imagery captured in different environments. For example, the oil spills that you captured in the Gulf of Mexico in *Nature Represents Itself* has the central visual of abstract patterns on the surface of the water (Schuppli 2018). I find that there are these speculative as well as informatic aspects present in your work. I would like to hear a little bit more about how you resolve (or not) these two in your work.

SS: This relationship between abstraction and information... How to respond? One of the things I would say is that the images in my work are abstractions that are not necessarily, in fact, abstract—in the sense that they have an analogue in the world. They are actual. I use a lot of those kinds of images because I'm shifting scale from the microscopic to the macro scale

of culture. So, the detailed and layered abstract images are one of the ways in which I can shift scales and provide the viewer with the sense that we are somehow inside the material world at the molecular level. I use a lot of abstract images to situate the viewer in the materiality of the events that I am discussing. I have a strong affinity for those kinds of images, I realize. When shooting on the sailboat [in Svalbard], I shot tons of footage of these patterns that were generated by water. I thought, "Wow, these look like the same kinds of parametric designs that architects and modelers produce." I found that there was a really strong visual correlation between the patterns that one finds in the natural world and that I have a strong affinity towards and the models of climate systems. Parametric design, where you're changing input variables to see different outputs, is a kind of modeling oriented towards the future to predict changes based on data points that have been aggregated about the past. So, abstract images are something that enables me to jump scales—to be inside the world of matter and then move to the world of culture—but also they have a strong relationship to these technoscientific modes of representation that includes data visualization, 3D modeling, and design.

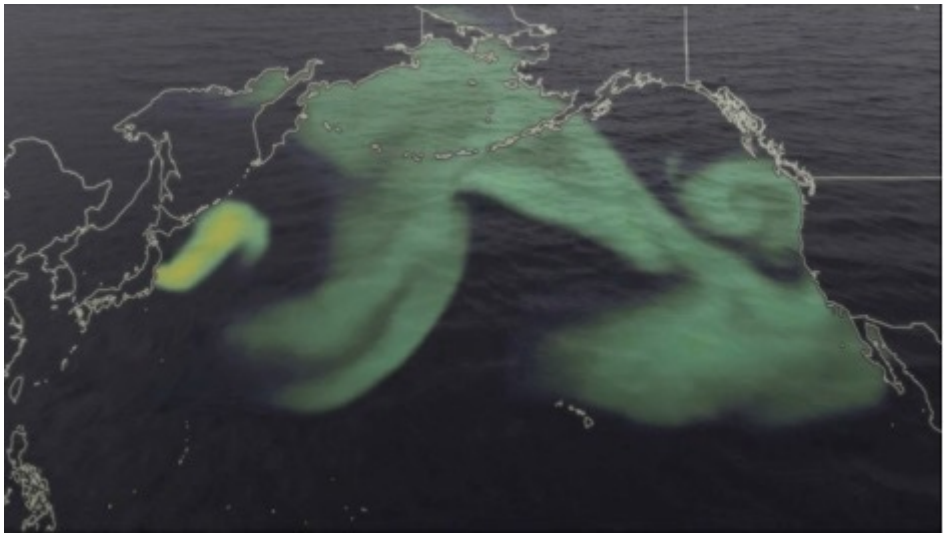
I am also interested in abstraction in relationship to art history, but not simply as a sign of complexity. For me, the field of abstraction can't simply be a stand-in to say, "Oh, this is really complicated, and this is why we are looking at this sort of seemingly abstract image." No. The abstract image comes from a very specific context. We encounter that abstraction within a project, within a video, within a work—so we understand what's at stake when we are looking or grappling with that abstraction. I'm not simply working with data abstractions or data visualizations as signs of complexity. You (Lila) are interested, obviously, in machine vision but also art historical and contemporary works of art. I do think sometimes artists use data visualizations just because they are quite visually engaging. But it seems sort of irrelevant where that actually comes from and the role that abstraction actually plays or where it's actually situated. How did that abstraction actually come about in the world? I use these kinds of abstract images and patterns as a way to get at something that's at stake in the work. I don't think I'm working with them in just a poetic register. When they appear, they have to do something. They have more of an operative role to play.

At the same time, I am not working from the perspective of Forensic Architecture when I'm making one of these video projects. I don't have to be completely loyal to the situation. I can use other materials in the telling of my stories. In the *Trace Evidence* trilogy, I used materials that I had at hand because I was trying to tell a story that I didn't have all the footage for. So, I brought in stuff that I shot in other contexts because I didn't have the burden of being completely loyal to the situation. Whereas Forensic Architecture can't be taking artistic liberties. The work that the agency does

needs to account for all the decisions made both at the level of representation and otherwise. As an artist, I don't have those strict parameters. So, I can bring in material [from other contexts] because I'm trying to tell the story about something and need some material that can somehow capture a sense of that. I'll bring in footage from somewhere else that can do that. This is one of the reasons that I shoot so much extra material and like to work with my macro lens as I am always gathering abstract material for my archives. But this isn't to say that just because I am producing an abstract image with material shot in another context, that I am not trying to be precise and detailed when working with such images.

LLM: I also see that your use of abstraction and informatic imagery can fall under producing what you describe as a "semiotics of landscape" (mentioned in the video work *Material Witness*); that is, an approach towards reading the expressions of physical landscape as a code and/or text. In your work, there is this reading of material as expressive of meaning so it seems grounded or connected to an external reality. This reading differs from the use of abstraction that explores it for its own sake, as something in a purely visual realm, independent of physical reality. In this way, your work is grounded in communicating what environment and environmental processes can convey, even if that something can be loose in its interpretation.

SS: I don't know if you saw Laura Poitras's *Astro Noise* (2016) exhibition at the Whitney Museum. Before you went in, she had all these screen grabs of drone stream communications. They are also on the cover of the book, *Astro Noise: A Survival Guide for Living Under Total Surveillance* (Yale University Press, 2016). She had a number of these screen grabs where the caption will say, like, "Video stream from an Israeli drone." You had this incredible image—stunning to look at—but it's also, like, "Wow, what are we supposed to do with that image?" There is no way to understand that image as a still. Yet a caption tells us that this very abstract image is attached to this very particular, violent reality. And we are left grappling with the incommensurate nature of that relationship, via a field of abstraction. I thought a lot about that work and about the question of what we are supposed to do with this visual experience. OK, drones are highly engineered, technical objects, and they are a part of this very complex telecommunications infrastructure. That's all you can really do with those images, and I've always pondered them. I think an image has to do a bit more. I think the image has to somehow help us understand what's at stake in an event. It's got to do more conceptual work than just be a sign of complexity—enigmatic, or impenetrable. I've always struggled with that project because of the level of abstraction in relationship to the event of violence. Maybe I'm doing the same thing. I don't know. But I've thought about that work a lot because of that relationship. There's no means to decode such images, and maybe that's the point. Where at least I'd say with Forensic Architecture, there are a lot of elements that have a certain level of abstraction when it comes to mapping a very complicated



Still from *Trace Evidence*, Susan Schuppli (2016) HD video, color with four-channel sound, 53 minutes. Courtesy of the artist.

scene, but all of the elements in their graphics are decoded and become part of a narration so that we understand their particular kind of relevance. I'm not saying I'm doing that in my own work. But there is something urgent about the field of abstraction helping us to somehow understand the very particular things it is actually connected to so that we can actually understand what is going on. What Doreen Mende (2017) calls the "navigational image." I think that's an interesting way to think about these contemporary forms of abstraction, as images that we need to navigate and that the means to navigate those images are part of the project. I'm not sure my work actually does that, but certainly the work of Forensic Architecture does that. I think the most straightforward answer to the question that you ask is, for me, it's really about the ways in which I can grapple with the condition of moving between different scalar registers. I think that's one of the main roles of abstraction for me.

A funny thing to mention in relation to *Trace Evidence*, which no one would know except me and Philippe Ciompi, who did the sound design, was that we decided to use sounds that sounded like something else. So, when you hear the Geiger counter, it's actually the sound of this particular whale that makes this funny clicking sound.

LLM: Wow!

SS: This was our sonic strategy to create something where the sound seems very "natural" to the scene, but only we know that we've actually used some other sound as a stand-in. It was a kind of sonic displacement. Maybe that conviction—that the sounds, they sound like one thing, but they are actually from somewhere else—might also help create this sense of anxiety or unease. The sound is just slightly off. So, ironically, the sounds in *Trace Evidence* are both sounds of the natural world.

LLM: Where does one locate the machinic gaze and the human gaze in your work, specifically as it relates to recording the media of environmental systems? What relationship do they have? Is it a relationship of entanglement or a binary?

SS: The thing that I actually do love about working with recording technologies is the ways in which they frame and reduce an expanse that is in excess. When you're outside in a given context or environment, the scale of what one can see as a human being might appear overwhelming. But there's something that I really appreciate about looking through the viewfinder and seeing that scene reduced to a frame—and then kind of tweaking that and composing the image. I love that moment because you can take something that is very expansive and even sometimes ordinary looking and then, by framing that or shifting focus or using a different lens, you kind of reinvent that space or produce an intensification of that larger image. That I find really exciting. The machinic is the way that I actually produce a kind of intensity out of something that is extensive, which would be the environmental systems that I set out to document. The technological and the machinic produces a kind of optical—and I would also say an acoustic—intensification. I think it's important to mention that the different kinds of microphones that I have also give us access to sonic worlds that we can't necessarily hear. They give us access to something we can't necessarily perceive as humans. Sometimes they intensify that; they allow us to hear very low frequencies—for example, they allow my microphone to go into the water or into a glacier. They give me access to acoustic realms that would be beyond my capacity to hear otherwise, and similarly with the visual, with the camera and with a lens system. Inasmuch as it intensifies, it also provides a certain kind of access. I just find it exhilarating when you look through the viewfinder or you have the headphones on, and you're listening with the microphone, and suddenly this world that you're in becomes strange again or becomes something different; a new auditory or visual register is opened up by the intercession of the machinic.

LLM: There are themes in your work about visibility and invisibility and latency. You also mention the "specter"—for example, in *Can the Sun Lie?* The optical extension made possible through a machinic vision also allows for a visibility where there is none. In your work, you seem very concerned with what can't be seen and/or heard in environments by just human sensorial capacity.

SS: It is worth mentioning, because I'm often working in and recording the spaces of other peoples' work and labor practices—of scientists, for example. There's something really exciting when someone's place of work is encountered through someone else's eyes and becomes almost, sometimes, even magical. I very much had that experience when I was shooting in the ice core archive and showing the scientists the stuff that Henry and I have

shot (Henry Bradley, who has come along with me on various projects as a cinematographer). Henry and I were sharing and showing the video footage that we had shot in the ice core archive. We had been playing around and shooting lots of reflective surfaces and just these interesting aesthetic elements that came to our attention. And the scientists were like, "Wow, I've never seen the ice core archive like that. I've never even noticed any of these things. You've noticed all kinds of things that I've never even seen." They were enthralled with the ways in which we were able to produce a set of images of something that was very familiar to them, and yet it seemed as if they had never even seen it in this way. There's something about the cinematic that can reinvent and defamiliarize these kinds of spaces. In that sense, the camera was also transforming the image of the ice core archives for the very scientists who knew it actually, intimately. It was very wondrous for me because I've never been in a place like that—this library of ice was really an extraordinary kind of space—but for the people who work there day in and day out, it was just very familiar. There was something about the camera that enabled that framing, to focus on small, overlooked elements. I think that's another way that the machinic can also help to engender a kind of wonder, again in spaces that might actually be very known, precisely because it's looking in very particular kinds of ways—its framing, its editing, its working with light, et cetera. That was a great experience to be able to produce these images for the scientists. And it was exciting for them to see their place of work through somebody else's eyes. But that somebody else was actually, I have to say, probably the camera. It wasn't really my eyes. It was actually the lens of the camera that had registered that effect, I think.

LLM: Thanks so much for talking with me today.

Susan Schuppli is an artist and a researcher. Her artworks have been exhibited throughout Europe, Asia, Canada, and the United States. She has also published widely within the context of media and politics and is author of the book *Material Witness*, published by MIT Press in 2020. Schuppli is currently director and reader at the Center for Research Architecture at Goldsmiths University of London and also an affiliate artist-researcher and board chair of Forensic Architecture. Previously she was senior research fellow and project coordinator of Forensic Architecture.

Lila Lee-Morrison is a scholar of visual culture and a postdoctoral research fellow on the ERC funded project, "Show and Tell: Scientific representation, algorithmically generated visualizations, and evidence across epistemic cultures" at Lund University, Sweden. She writes about the visual cultures of machine vision, including on aesthetic analyses of automated facial recognition technology, the visual politics of drone warfare, intersections of technology and contemporary art, and media representations of the European immigration crisis. Lee-Morrison received her PhD from Lund University in art history and visual culture with a published dissertation titled *Portraits*

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