

Re-Imagining the Collection of the Kreis Family

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ABSTRACT

Drawing on the idea of family photography as objects of knowledge and the theory of sensory in the communicative power of photographs, this article explores how the Kreis Family Collection (1850-1980) can be presented visually and acoustically on an archival platform and how it generates new knowledge in this process. Our central result is a virtual imagesound installation that allows the same photographs to be re-imagined in three contrasting acoustic 'moods', based on the argument that family photography's 'show and tell' is an open-ended performance, in which the user of an archival platform is asked to participate.





Introduction: Re-Imagining in the Context of Archival Practices

Image archives have been steadily digitizing their material since the beginning of the 21st century, with one of the main arguments for digitization being the hope of increased accessibility. However, the sheer volume of data means that researchers are dependent on visual access, as systematic text searches require prior knowledge of classifications, metadata, and keywords.

Following Mitchell Whitelaw, one of the pioneers who argued for "Generous Interfaces" (2015) that make archival collections visible in the digital world, our article contributes to research by discussing new methods of *visually* exploring and reimagining digitized archival collections. "Generous Interfaces" show the scope and complexity of the collections, rather than hiding them behind a search mask. One example is the Corley Explorer which uses maps and tags to make the photographs accessible.

In this article, however, we present a virtual imagesound installation, Re-Imagining the Collection of the Kreis Family, which focuses on the sensory experience of materiality and image scenes that would be difficult to convey through tags or a map. For some years now, theories of materiality have directed the attention of researchers in the humanities towards the agency of objects and materials. However, research in photographic archives is still largely focused on the written word and the belief that contextualization is usually only achieved through texts. Our approach is therefore to be seen as an experiment and an attempt to challenge text-dominated archival research by discussing methods for visual and multi-sensory exploration and reinterpretation of digitized archival collections.

The Kreis Collection

The photo material in our work *Re-Imagining* the Collection of the Kreis Family comes from the photo archive of Cultural Anthropology Switzerland (CAS) in Basel, Switzerland. The CAS acquired this extensive private collection from a Basel-based family of physicians and printers in 1991. The collection comprises around twenty thousand loose photographs taken between 1850 and 1980. A quarter of them were organized into 93 photo albums. The Kreis Family Collection

represents a typical example of urban bourgeois culture and provides comprehensive insight into the development of private photography over the course of a century.

In 1991, the Kreis Family Collection arrived at the archive packed in banana crates, in no apparent logical order. An internal document from that year shows how worried the CAS was about the fact that there was little to no information from the family about the collection's content. Over thirty years later, it seems that image content still is the most familiar way of thinking about photographs. Who are the people in the picture? What are they doing? Why are they doing it? The need for the so-called context of photography is apparent. However, in reality, many photo archives are confronted with the fact that collections often lack written information that could give a better understanding of their visual content. The question of how to deal with collections without context lies at the heart of cultural anthropologist Murielle Cornut's ongoing dissertation. Thirty-two years after the arrival of the Kreis Collection in the archive, she re-examines the photographic objects in terms of the knowledge practices associated with them. This approach recognizes the increasingly complex connection between materiality, digitization, and memory and the need for a method of dealing with photographic collections without surviving informants.

One approach to the analysis of family photography is to see these kinds of images not just as illustrations of family life, but as objects of research in their own right; this approach first emerged in the late 1990s, when cultural studies expanded its field of research to include images of everyday life. How do people shape and explain their lives through images? Photography without context is, therefore, not a historical waste, but can become an important new source of knowledge.

Research Ouestions and Main Thesis

The Kreis Family Collection is a private collection, about the contents of which there is little information from the family. How can the Kreis Family Collection be presented visually and multi-sensorially on an archival platform? And how do we involve users and encourage them to reinterpret the same photos in various ways – to reimagine them?

Family photography trusts in the future. It anticipates future memories of the past even as it is being

created. This is why family photography offers various points of reference for memories right from the start as is destined to become contradictory or ambiguous across the different perspectives of future generations. Indeed, many faces will be forgotten early on or disappear in new family relationships of future children, grandchildren, aunts and uncles, godparents, stepchildren, and so on. But photos of smiling children, embracing couples, and sunny outings still give the impression of familiarity long after their producers have passed away. Family photography depends on an unspoken, shared understanding that endures.

Consequently, the idea of *Re-Imagining the*Collection of the Kreis Family is based on the thesis that the 'show and tell' of family photography is an open-ended performance, supported by the visual and multi-sensorial presentation on the interface.

Viewers of family photography in the archive see the past present of the deceased, as well as their past future. Family photographs continuously make people pause, ask questions, and try to sense their meanings.

The Framework for Re-Imagining the Kreis Collection

The presentation of the Kreis Family Collection on the interactive archival platform *Participatory Image Archives (PIA)* is being developed between 2021 and 2025 as part of a research project in collaboration with the photo archive of Cultural Anthropology Switzerland in Basel. Our virtual image and sound installation *Re-Imagining the Collection of the Kreis Family* is currently presented as a video on Vimeo. The video shows a short excerpt of the virtual image and sound installation. The implementation of the generative sound software in the interface is still under development. The video shows an example of the ambivalences, variations, and divergences between images and sounds.

The overall research results in a participatory visual interface (*Participatory Image Archives*) for three different collections, one of which is the Kreis Family Collection, a collection of private family photographs. The goal of our overall research is to design an interface that enables the annotation, contextualization, and linking of images and their metadata, thus promoting participatory use of the PIA platform (Felsing et al., 2023). An example of this is the use of machine and human-made image annotations (Cornut et al., 2023). It allows 'citizen



Figure 1. A mockup of a 'User collection': Re-Imagining the Kreis Family Collection

researchers' to create individual narratives through 'user collections' (e.g., *Re-Imagining the Collection of the Kreis Family*, Figure 1), by selecting their favorite pictures from the archives and uploading their own content.

Research on Three Interrelated Areas

Our investigation focuses on three interrelated research issues: 'materiality and the sensory in the digital,' 'order and disorder in memory cultures' and 'ambivalence and polyphony through user engagement.' This addresses the major perspectives that are fundamental to our work on re-imagining the Kreis Collection.

Materiality and the Sensory in the Digital

The 'material turn' became a formative methodological influence in cultural anthropology. In shifting the methodological focus away from the content of the image as the site of meaning, the material forms of photography, as well as its various uses, become central to the function of a photograph as a socially salient object. This model of thinking considers the nature of photographs as objects, as *things*—things that a family did not produce for future preservation in an archive but for exchange, transmission, modification, decoration, and sometimes destruction within their networks. Their materiality means that viewing family photographs implies several physical interactions. Joanna Sassoon (2004) argues that viewing a historical photograph on a computer screen is profoundly different from the archival experience in the understandings it might generate.

Media must thus not be seen as neutral vehicles that transport content. Rather, the medium determines our creative possibilities and specifically shapes the meaning of what we communicate. The constitutive properties of a medium are derived from its materiality and modes of use; photography implies various physical interactions.

We argued that family photography can be thought of not so much as a text to be decoded, but as a thing, an object with a social life. Interest thus lies in the question of what happens when something is done with it. What role does digitization play in this context? Photographs are objects that can be perceived with all senses. Some of their components are only visible in a certain light or only make sense when viewed together with other objects or on specific occasions and in specific spaces. This material quality gets lost in digitization, as digital surrogates are not made to reproduce things but to make images available. For example, the backside of a photograph is omitted, or a photo album is sequenced into single pages, making it difficult for users of the online archive to appreciate its three-dimensionality. However, criticizing digitization as decontextualization only reiterates the unwarranted reservations of earlier research.

Our contribution pursues a more dynamic concept that understands the act of seeing and hearingthat is, sensing—the object as performative and activating. Although the material becomes digital information that can be opened with a click, there are still prerequisites for interaction between the user and the photograph. This idea of a continuous connection extends beyond what we see in front of us on the screen. Elizabeth Edwards (2012) comprehensively describes the importance of interaction as part of the intended biography of photographs, and how they demand embodied emotional responses, even referring to photographs as "objects of affect" (pp. 221–234). Even on the screen, family photos still want to be looked at, to tell their stories. Their very existence is based on the knowledge of the anterior time structures of photography. The people depicted have always looked out of the photograph into the present, be it through a layer of albumin or a computer screen. Creating a disturbance in particular helps to unfold the user's imagination. In the photo "Kreis family sitting at a dining table" (Figure 3), the gaze lingers on a strangely surreal chandelier above an idyllic family scene. We can imagine a before, after, or even a present of that scene, which might have led to its creation. Did the children later look at the picture and find themselves amused by the strange décor of the previous generation?

Making it Possible to Experience the Loose Associations and Richness of the Collection

Family collections are never in order. They are fragmented, illogical, eclectic, duplicated, and random. They are among the most ubiquitous of archival objects and constitute a rather curious lot that does not go well with the linearity preferred by both archives and museums. An overview of

family collections can only be gained over time, as the objects are sorted and indexed. Nevertheless, the rich content of family collections allows for a variety of approaches in both research and artistic explorations. They lend themselves particularly well to methods of reading that support uncertainties and allow room for interpretation. Participants, or in our case, future users, may see or even hear the same image and its matching sound very differently.

It could now be argued that this new era in the objects' lives is incompatible with the original meaning on the part of the family or, more importantly, that the shift in the meaning of digitization is incompatible with ethical requirements for handling private material. Joan M. Schwartz (2011) emphasizes the inevitability of institutional self-reflection in the process of digitalization. This requires that archives are prepared to enter the discourse on how power asymmetries in memory institutions can and should be dismantled. To make this possible, private collections such as that of the Kreis family should not remain hidden, but rather explore new ways of representation. Perhaps it is precisely such collections that lend themselves to thinking about how potentially sensitive motifs and captions can be disturbed and questioned in a participatory way and how the material nature of photography is altered in the process.

Our virtual image-sound installation is about discovering a part of the overwhelming richness of the collection that could be lost in a text-only search. This is linked with the ambition of making it possible to sense the vastness and great diversity of the Kreis Collection—which contains more than any one person can experience in a lifetime—and thus to 'play out' the potential ambiguity of the individual image. It should be possible to imagine the 20,000 pictures as a whole, without having to create a complete archival system in advance, because that would fundamentally falsify the Kreis Collection.

Awakening the Meaning of Photographs Through User Engagement

If it is assumed, as in Bismarck et al. (2002), that archives are permeated by power relations, then two things are required for the hierarchies in them to manifest: first, the hope that the present day will survive by 'recording' it, and second, the effort to make it as complete as possible. When it comes to

dissolving power relations, however, participation and diverse voices gain significance in the process of archiving.

Through different contexts or contrasting acoustic 'moods' in *Re-Imagining the Collection of the Kreis Family*, users are encouraged to reinterpret the same photographs in different ways. Let us remind ourselves again that we are dealing with a collection with no surviving family context - there is no intended meaning that we can reconstruct with certainty. These photographs are therefore particularly suited to reinterpretation because of their potential ambiguity through contextual dependency. This potential ambiguity applies not only to obviously ambivalent images but also to specific family photos as well, because the meaning of an image always arises in context, through its relationship to other pictures.

Despite this open-ended quality, the individual photo, in terms of media, tends to be 'monosyllabic,' especially when it is removed from its photo album. Unlike a press photograph, which is always dependent upon serialization, reproduction, and the relationship of the text to the visual statement, private photographs lack this context.

Walter Benjamin speaks of the "contextual dependence" of the individual image using the words Bertolt Brecht employed to describe a photo of a factory: "A simple reproduction of reality [says] less than ever before about reality" (as cited in Benjamin, 1999, p. 526). The photograph of a factory says nothing about what is produced there, nor does it say anything about the kinds of conditions under which people work. Opening such contexts requires a "constructive photographic practice," wrote Benjamin, which manages to make narrative connections to a context (ibid.).

Roland Barthes (1990) has described the photograph's fragility as a "message without a code," because it is technically produced; it "conveys" the "event as such, the literal reality" (as cited in Geimer, 2015, p. 199). According to Barthes, the photograph is not necessarily guided by a message, since the relationship between the recording and the recorded is produced in an automatic process that cannot be influenced.

From that, Peter Geimer (2015) derives that "there [is] a dimension in the photographic image in which the attribution of meaning ... has yet to be made" (p. 200). Barthes goes on to say that the

interpretation of a photograph is embedded in diverse narratives and discourses while conforming to them and their patterns of interpretation.

Interdisciplinary Work Procedures

Our research pursues a decidedly interdisciplinary mode of access. It combines communication design research with approaches from cultural anthropology and the artistic development of a virtual imagesound installation for the *Participatory Image Archives (PIA)*. The collaboration with sound artist Andres Bosshard was initiated on the occasion of the Art of Research Conference 2023 at Aalto University, Espoo, Finland. Although we will show the user collection *Re-Imagining the Collection of the Kreis Family* (Figure 1) on the platform, the image-sound project was not previously planned in the PIA research. But it seemed to us to be a meaningful next step to see how the issues raised in previous workshops and conversations could

now be put into practice in PIA. We see the collaboration as a possible answer to the question of how knowledge practices offer new insights into how we think about archival photography and how personal and complex histories are being re-imagined in the digitization process.

Album Workshop

In the fall of 2022, we—the cultural anthropologist and the archivist—held a workshop with a focus on personal family albums within the collections of the Cultural Anthropology Switzerland archive. Supported by Nicole Peduzzi, head of the archive and the CAS photo collections, questions about provenance, digitization, and conservation were addressed. In talking with all the participants—restoration experts, scientific photographers, archivists, collectors, and design researchers—the following points became clear: photographic memory may be based on images, but mostly follows



Figure 2. A page from an album by Mathilde Kreis, SGV_10A_00017_015, 1911–1934, © Cultural Anthropology Switzerland (CAS/SGV)

personal narrative. As personal narratives, photo albums are retrospective, selective, and highly affective. Their mere presence at the table stimulated the group to talk; they did not even have to be opened or touched. The workshop confirmed the introductory thesis that showing family photography is a performance that can be very rewarding as well as productive and does not require a conclusive truth in a certain predefined context.

On Selecting the Photographs

For the exemplary user collection *Re-Imagining* the Collection of the Kreis Family we—the design researcher Ulrike Felsing and the cultural anthropologist—selected both individual pictures and whole album pages with groups of associated photos (Figure 1). With the latter, we want to make the material side of an album perceptible: the binding, the front matter, separator pages, blank pages, and cords. The sound artists Bosshard and Masui work from the selected photographs.

Most of the pictures we have selected for the user collection *Re-Imagining the Collection of the Kreis Family* depict the interiors of private homes—a living room, a kitchen, or a parlor—and generally, people are shown engaged in their daily activities. In some of them, someone plays the piano (Figure 1, top right); in others, the choir in which the family sang can be seen (Figure 1, bottom right). The same criteria were used to select the images for the animated sequence, with an additional criterion of which images should follow each other. Points of reference included the size and position of faces or objects, similar shapes, and dark or light areas.

About the Sound Library

The sound library is created in collaboration between the sound artist and the design researcher, in exchange with the cultural anthropologist, and in constant alternation between practice and reflection. All the digital sound samples for the animated photo sequence have a certain kind of independence, as different sources and materials are used for recording.

With the mood of 'everyday, intimate' sounds we want to evoke the imagination and memory of insignificant, small activities, such as footsteps or the soft rustle of a newspaper. Their sounds blend

into an atmospheric, delicate murmur, a kind of micro-percussion.

With the mood of 'romantic, atmospheric' sounds we try to give a temporal depth to the space depicted. For example, we use faint bells and distant voices.

With the mood of 'dramatic, disturbing' sounds we want to emphasize the ephemerality and uncertainty of the images. The sound of wind and water waves counterpoint the intimate voices and micro-percussions that bring us closer to the people portrayed.

Percussionist Aya Masui and sound artist Bosshard have performed and recorded these sounds, using different types of paper, cardboard, wood, various fabrics, metal, or glass, and historic vintage objects like small wooden boxes. Both artists refer to the poetic understanding that objects speak to us, to each other, and the environment, creating a distinct atmosphere. In addition, Bosshard made many field recordings in places that can be seen in the images. All in all, he composes an acoustic dialog of the imagined atmosphere of the historical photographs, which becomes the murmur and rumble behind the collection

About the Method of Composition

To make it possible to experience the manifold voices of each photo and those in the collection, Bosshard works with a generative method he has developed for his "sound garden" format.

The generative, morphological method creates multiple references with contradictions and ambivalences, wide variation, and divergence. The morphological model developed by Fritz Zwicky (1971; Ritchey, 2013) serves as a reference point for our generative compositional method. Essentially, our methodic variation consists of 'matrixing' all of the elements, which are, in our case, the sounds.

Each time the sound program (PD-Patch) is activated, it assembles a new selection from out of all of these 'matrixed' sounds. They are strung together in an unpredictable sequence—one might say, through a designed coincidence. In this way, the sounds' connection to the pictures is never fixed, but always variable, and the process of interpretation becomes more open.

Results: An Animated Photo Sequence with Three Contrasting Acoustic 'Moods'

Re-Imagining the Collection of the Kreis Family is a virtual image and sound installation that can be experienced via the archival platform PIA mentioned in the introduction. The historical photographs are made to speak, as it were, by enlivening them with noises and sounds. The sounds help viewers to immerse themselves in the photographs, and slowly, step by step, expand their knowledge, and their habitual patterns of interpretation.

We worked with an animated sequence of photographs, accompanied by three contrasting acoustic 'moods' for interpreting the same images: an 'everyday, intimate' mood, a 'romantic, atmospheric' mood, and a 'dramatic and disturbing.' By experimenting with different 'moods', we want to engage users and encourage them to question their modes of interpretation. Percussive sounds trigger acoustic dialogues with unremarkable details in the images, which shifts the focus to them, allowing them to spontaneously 'talk' about things in the past.

The Animated Photo Sequence

In the animated photo sequence, the individual photo derives its meaning from its fixed position in the sequence. The transition from one image to the next is achieved by zooming in on a detail that reveals a detached subject. In this way, it can be juxtaposed directly with the close-up of any other image. Then, by zooming out, the next image can be seen again as a whole. Each image is experienced as a potential phase in a larger, 'breathing' sequence. Zooming out of photos within the same image, such as on a living room wall, was particularly interesting.

How have we tried to draw attention to the specific materiality and mediality of the photographs? To emphasize the materiality of the photographs, the gaze has to be drawn away from the subject. This is done, for example, by making the surfaces of the photographs more visible through close-ups. Repeated panning to the edges also turns the photographs back into objects 'made of paper.'

In the following, we will describe an example of how to combine sound and image, using a single photo taken from the entire sequence (Figure 3). A family breakfast at the table. The light shines through the window; two sisters with long braids and checkered aprons can be seen. The littlest, the baby of the family, sits in between the mother and father.

The user can now choose one of three specific acoustic 'moods.' Version A evokes an 'everyday, intimate' interpretation: you are close to the people depicted, almost sitting with them at the breakfast table, and you can hear the children talking to each other. In version B, the same image appears in a 'romantic, atmospheric' interpretation. Now you notice a special light coming in through the windows. You are almost certain that there must be a flourishing garden filling the room with the distant chirping of birds. In version C, the image appears in a 'dramatic, disturbing' interpretation: now the sound of the wind can be heard outside the closed window, and the blooming garden and familiar intimacy are swept away.



Figure 3. This photo shows the Kreis family sitting at a dining table, SGV_10P_00350, gelatin silver print, 13 x 18 cm, unknown photographer, 1914–1916, © Cultural Anthropology Switzerland (CAS/SGV)

Discussion: Implications of Our Research Issues

For this article, we have chosen to focus specifically on the materiality and sensory aspects of historical photographs. We do not claim that this selection is exhaustive. The Kreis Collection is also presented on the PIA platform in an IIIF viewer. It is further visualized in a variety of metadata-based representations, such as in a timeline or a 'virtual desk' (Figure 4), which allow the large selection of images to be explored.

In the following, we discuss the implications of our research issues: 'materiality and the sensory in the digital,' 'order and disorder in memory cultures' and 'ambivalence and polyphony through user engagement' in relation to the presentation of the virtual image-sound installation. We pay particular attention to our main argument that the 'show and tell' of family photographs is an open-ended performance stimulated by the virtual image-sound installation.

Re-imagining Photographs through Sound Allows to Relate to their Material and Social Existence

The photographs in the Kreis Family Collection can be called successful, not only by virtue of their provenance as the products of a wealthy family but also because they have been preserved and still engage with users in the present. They are objects of affect that cause us to constantly adapt our actions so that they can continue to be looked at. By re-imagining them with the help of sounds, they make it possible to generate new knowledge.

By engaging with the image-sound installation, users enter a relationship with the material and social existence of the photographs—not by attempting to uncover some sort of hidden meaning but by producing meaning themselves through participation as well as by activating their senses.

Order and Disorder—Finding Valuable, Unexpected Things

The previously described change in the field of cultural anthropology—from image-based to object-based perception—has had major implications for the value of family photography. Treating

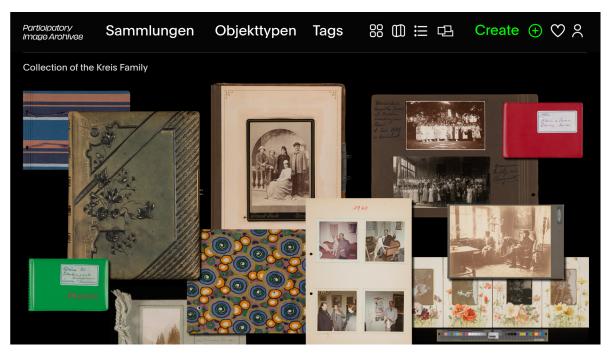


Figure 4. A mock-up of the Participatory Image Archives, presenting the collections in different forms of display, e.g. the Kreis Collection on a 'virtual desk.'

the multifaceted nature of family collections as an asset for knowledge generation can provide new arguments and a renewed institutional relevance that a mere classificatory and textual approach cannot accomplish. The (non-)organization of images in the three versions of the animated image-sound installation gives material form to the functionality of memory. It is a performative process rather than a representation of an order. Anyone looking at a family photo album would have asked about the people in it, and the answer would not only be a name, but a story. In the case of album 17, Mathilde Kreis knew them all (Figure 2). But today, only the logic of the pages has survived. Some pages have only traces of the photographs they once contained, indicating that they were removed at an unknown time.

Family Photos Can be Experienced as Potentially Ambiguous by Re-Imagining Through Variable Sounds

Even though the same photos of the animated sequence are seen repeatedly, the different acoustic 'moods' evoke unexpected meanings and guide the eye to details that would otherwise have been overlooked, as we will now discuss, using the photo "Kreis family sitting at the dinner table," (Figure 3) as an example. In the case of (A), a very normal, intimate situation is seen: a family is having an everyday meal. The eye is drawn to the objects on the table and the children's voices confirm that it is early morning. In the case of (B), the 'romantic, atmospheric' interpretation, the sounds of faint church bells enhance the scene. The mother's frilly dress, the father's suit and tie, the high ceiling of the room, and the dark wall paneling come into view. Now one is reminded of an opulent breakfast in an upper-middle-class family mansion with a garden. In the third case (C), the 'dramatic disturbing' interpretation, nothing in the picture seems to fit together anymore. A sudden gust of wind rattles the window, revealing something eerie, even monstrous, manifesting itself outside. Now the eye remains fixed on the antlers hanging in the chandelier, which does not make sense, and suddenly everything seems ephemeral and shadowy.

Conclusion: Re-Imagining as Participation

The article is guided by the research question of how to visually and multi-sensorial present the Kreis Family Collection on the archival platform PIA (*Participatory Image Archives*), and how the photographs, when they cannot rely on textual contextualization, can be understood through the practices and people inherent in them as material objects – including potential users of the archival platform.

When archives make their material available online, they expect each user to be sensitive to different aspects in front of the screen. As shown in this article, photographs are undeniably visual, but they are also embedded in practices of knowledge. They always contain not only what they depict, but also the spaces and people who produced, sent, and displayed them. Archives are based on this knowledge of provenance but are rarely designed to enable and support the needs of users who want to participate in these practices.

An experimental approach that combines the reading of photographs with sound is intended to take into account the performative nature of family photography and to acknowledge the individual perspective of users. This participatory approach is not to be understood as a misinterpretation of a historical reality but as a re-imagining of a family practice of knowledge that has always been dynamic and polyphonic.

And how to involve users and encourage them to reinterpret the same photos in various ways – to reimagine them?

Régis Durand (1995) fittingly describes photographs as "objects that lack certainty," (pp. 1–19) because they call for various lengths of engagement and different types of attention, depending on their materiality. Archives store, preserve and organize objects so that they can be consulted by users when needed. Due to the efforts in the field of digitization, we must assume that most of the archive's future users will only encounter photographs like those from the Kreis Family Collection via their digital reproductions and hardly ever through the analog originals. Digital materiality is not lacking something but can be understood as another aspect of the material archive's ongoing social biography. Re-imagining the digital image through a virtual image-sound installation allows for new and exciting knowledge. In developing the virtual imagesound installation, we worked with three different 'moods' to not impose a fixed interpretation on the image. Instead, we offer a range of interpretations from which the viewer can choose but also discover other interpretations. By taking into account the thesis that showing family photography is an openended performance, we have developed methods to encourage user engagement through visual and multi-sensorial presentation on the interface.

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Endnotes

- 1 The "Corley Explorer" (2018, https://explorer.corley.slq.qld.gov.au) was developed by Mitchell Whitelaw and Geoff Hinchcliffe (Data Design Lab, ANU School of Art and Design, Australia) in collaboration with the design studio "Icelab" (https://www.icelab.com.au/work/corley-collection-explorer).
- **2** Participatory Image Archives, https://about.participatory-archives.ch/
- **3** The following works are presented on Vimeo:
 - A Re-Imagining the Collection of the Kreis Family–Everyday and Intimate Mood (https://vimeo. com/901189331)
 - B Re-Imagining the Collection of the Kreis Family—Romantic and Atmospheric Mood (https://vimeo. com/901184876)
 - C Re-Imagining the Collection of the Kreis Family— Dramatic and Disturbing Mood (https://vimeo.com/901187024)
 Re-Imagining the Collection of the Kreis Family—Helsinki Version (https://vimeo.com/902249291)
 Sound recording for Re-Imagining the Collection of the Kreis Family 1 (https://vimeo.com/902244556) and 2 (https://vimeo.com/902247944)
- 4 Aya Masui is an expert classical percussionist as well as a master of her own Japanese tradition and its ritualized world of sound. Masui's main area of artistic research is the audio articulation of elements such as paper, wood, air, fire, metal, and water.
- **5** The media artist Andres Bosshard uses the Sound Mobile's generative method for his "sound garden," his own artistic form Whitelaw, M. (2015). Towards generous interfaces for archival collections at, developed out of the "sound installation." Bosshard has

- largely tested his generative methods mainly in public, with works such as *sonicArk*, a citywide sound project in Aarhus, 2017–18, commissioned by the European Capital of Culture 2017; *Klanghimmel* in Vienna's Museum district (2010), but he has also included his methods on broadcast on the internet for the documentation of the *telefonia* (https://telefonia.hek.ch, House of Electronic Arts, Basel, 2018). (http://www.soundcity.ws)
- **6** A PD patch is an individually designed program in Pure Data (PD), a visual programming language for creating interactive computer music and multimedia works.
- 7 IIIF, the International Image Interoperability Framework (https://iiif.io), is a set of open standards for the high-quality online delivery of digital objects.