

Personal Photography & Art

Digital Media Practices exemplified by Digital Photography and Art

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Abstract

Photography as a technology has had a profound impact on society since its conception in the early 19th century until today. Touching both the public and the private aspects of human life, its influence reaches from commercial applications to personal use and changed the way we communicate, represent and express ourselves as members of our social context and society as a whole. As identified by prior research, *personal photography* serves four distinct *social uses*: *Creating and Maintaining Social Relationships*, *Personal and Group Memory*, *Self-Presentation* and *Self-Expression*. While the first three have been explored scientifically to a great extent, *Self-Expression* in its practices and social impact has been largely neglected so far.

This thesis focuses on exploring the use of *Personal Photography* in the age of ubiquitous digital photography technology through a series of *qualitative interviews* with users of the online art community *deviantART*. Drawing on the definitions of *qualitative research* as described by Creswell, Hohl, Kvale and Brinkman and the *analytic approach* outlined by Mayring as well as a supplementary *narrative analysis* based on the concepts of Labov and Waletzky, the interviews lead to what Geertz calls a *thick description* of digital media practices of individuals utilizing *Personal Photography* as a means of self-expression.

The study explores the wide diversity of these practices and relates them to different *theories of photography*, namely those created by Roland Barthes and Vilém Flusser. Furthermore, it uncovers issues of *identity* and the complex relationship between the need for it *recognition* on the one hand and the need for *privacy* on the other, as well as touching on the subjects of relationships, family and other social interactions through *Personal Photography*.

Kurzfassung

Photographie und die damit verbundenen Technologien haben seit ihrer Entwicklung im frühen 19. Jahrhundert signifikanten Einfluss auf die Gesellschaft. Die Einwirkung von Photographie erstreckt sich von kommerziellen Anwendungen bis zum Privatleben und verändert wie wir kommunizieren, uns selbst repräsentieren sowie die Art und Weise, in der wir uns mit Hilfe von Photographie in unserem sozialen Kontext künstlerisch ausdrücken. Wie frühere Studien gezeigt haben, erfüllt *Privatphotographie* vier unterschiedliche Funktionen: *Aufbau und Erhalt sozialer Beziehungen*, *Bewahrung von Erinnerungen* (von Einzelpersonen oder Gruppen), *Selbstdarstellung* und *Selbsta Ausdruck*. Wiewohl den ersten drei Funktionen in diversen Studien bereits einige Aufmerksamkeit gewidmet wurde, sind *Selbsta Ausdruck* und künstlerische Privatphotographie, sowie im Speziellen deren Praxis und Einfluss auf die Gesellschaft größtenteils unerforscht geblieben.

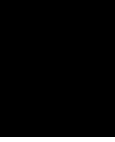
Diese Diplomarbeit erforscht daher die Praxis von Privatphotographie im Zeitalter ubiquitärer Digitalphotographie anhand einer Reihe von *qualitativen Interviews* mit BenutzerInnen der Online-Community *deviantART*. Basierend auf den theoretischen Grundlagen der qualitativen Forschung wie sie Creswell, Hohl, Kvale und Brinkman beschreiben, unter Zuhilfenahme der qualitativen Inhaltsanalyse nach Mayring und der Narrativanalyse nach Labov und Waletzky, führen die Interviews zu einer *dichten Beschreibung* der digitalen Praxis der ProbandInnen im Hinblick auf Privatphotographie zum Zweck des künstlerischen Selbsta Ausdruckes.

Die Arbeit behandelt eine breite Vielfalt photographischer Praktiken und setzt diese in den Kontext zweier *Theorien der Photographie* basierend auf den Werken von *Roland Barthes* und *Vilém Flusser*. Darüber hinaus beleuchtet sie die Zusammenhänge zwischen den Themenkomplexen *Identität, sozialen Beziehungen und Interaktion, Familie, Privatsphäre* und *öffentlicher Anerkennung* im Kontext von künstlerischem Handeln und Privatphotographie.

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Introduction

‘From now to the end of consciousness, we are stuck with the task of defending art. We can only quarrel with one or another means of defense. Indeed, we have an obligation to overthrow any means of defending and justifying art which becomes particularly obtuse or onerous or insensitive to contemporary needs and practice.’

Susan Sontag [Sontag, 2012, p. 2]

Since its development as a new technology of image creation in the early parts of the 19th century, photography has been subject to constant change. Sociological as well as technological aspects influence its use and propagation as well as its implications for society. The increasing use of photography as everyday technology, beginning with compact cameras, through the development of the digital camera (coinciding with progress in the fields of semiconductor and computer technology) and, finally, the integration of digital cameras into ubiquitous computing devices like smartphones made photography available to a broader audience and wider demographics, and opened up new use cases. As it was not just a technology for professional photographers anymore, *personal photography* (see van House [Van House, 2013]) can be identified as a category of photography alongside professional or commercial photography. As van House states, four distinct social uses can be identified: *Creating and Maintaining Social Relationships*, *Personal and Group Memory*, *Self-Presentation* and *Self-Expression* [Van House et al., 2005]. The first three uses are covered in numerous studies, attributed to either “*social science research in visual communication [and] cultural studies*” (*Science and Technology Studies* or *STS*) and related areas, or *human-computer interaction (HCI)* [Van House, 2013, p. 125]. However, the last category - *self-expression* - has been fairly neglected so far in current research:

Expressive personal photography, making images that are primarily aesthetic or humorous, is not new, but almost entirely absent from the research [...].

Photography is discussed extensively as a fine art, but not in the context of personal photography. (van House[Van House, 2013, p. 131])

As such, this thesis strives to close this gap by exploring the digital media practices of non-professional personal photographers in terms of *Self-Expression*.

1.1 Aim

This thesis aims to identify the role and influence of self-expression in personal photography, as well as shed light on how technological advancements in the field of digital cameras and ubiquitous computing devices influence this aspect of personal photography. By means of a *qualitative research study* based on interviews with users of the online art platform deviantART¹, the practices of non-professional photographers are being explored and contextualized within that site. Furthermore, the results are being interpreted through two separate philosophical approaches based on the works of Roland Barthes and Vilém Flusser.

As a study of partly exploratory, partly descriptive nature, the thesis presents emergent results relevant to both the field of *HCI* and *STS* and is embedded in both. On the one hand, the analysis of the participants' interactions with the technical artifacts enabling them to pursue their photographic practice fits closely into the area of *HCI*; on the other hand, the theoretical analysis of their practices in the context of photographic history and theories of photography is situated within the realm of *STS*.

1.2 Motivation

As a student of Computer Science in general and Media Informatics in particular, areas of technology that influence societal change and an evolution of individual practices are of heightened interest to me. Photography has been an aspect of society for well over a century now, and has both seen and influenced many changes - in the way we as human beings view the world, represent ourselves and our peers, as well as communicate and express ourselves. The recent advent of digital photography in the last 15 to 20 years represents only a very short time span compared to the more than 140 years of photography history before then, yet the world has seen a multitude of technological innovations and advancements in photography and related areas in this short time. Following this, the way we have adapted our daily practices to these new technologies offers fascinating insights into all areas of human life that relate to photography.

On a personal note, I have been interested and active in photography as a means of artistic self-expression for more than a decade, both as a photographer as well as an user and observer of deviantART. The experiences and personal relationships that have evolved from working with both analog and digital photography have shown me the potential that resides in personal, artistic photography. Beyond that, they have piqued

¹<http://www.deviantART.com>, [DeviantArt, Inc., 2015a]

my scientific curiosity in the practices of those that share my interests. The fact that I have been involved with the technologies in question for more than ten years now puts me in the fortunate position to both relate to the participants stories and narratives as well as situate them in the greater (technological) context that is digital photography.

1.3 About the thesis

The thesis is structured into four parts: this *introduction*, *theory*, *methodology* and the *analysis* of the results.

The *theoretical part* tries to cover the theoretical groundwork necessary to illustrate the approach, starting with a short overview of the state of the art in terms of digital photography practices within the scientific communities of *HCI* and *STS*. Following this is a (comparably) brief history of photography, focusing on photographic practice, both personal and professional, from the mid-19th century until now. Through an analysis of technological paths, the evolution of personal photography is illustrated, providing a stringent backdrop against which to situate the current *status quo* of personal photography. Transcending from history to philosophy, two theoretical approaches to photography are being presented: Roland Barthes' work on photography from a more individual, personal standpoint, and Flusser's writings on photography in the larger context of society [Barthes, 2000, Flusser, 2000].

The chapter is rounded off with an introduction to deviantART, the website and online community that is being used by the participants of the study and that they were contacted through. This chapter covers features, member interactions, impact and contextual information in conjunction with other aspects of the site.

The *methodological* part illustrates the approach chosen for the study. Starting off with a general introduction into qualitative research, the chapter expands into the role of the researcher, quantitative interviews and the research questions. Subsequently, the chapter explains the analytical approach in the next section: the analysis following Mayring's qualitative content analysis of the gathered interview data on the one hand, balanced by a narrative analysis based on Labov and Waletzky's approach [Mayring, 2008, Mayring, 2002, Labov and Waletzky, 1966].

Lastly, the methodological part finishes with a description of the practical implementation of both the interviews and how they were analyzed, expanding on the biographical data of the participants, the process of interviewing and the details of the data analysis.

The final part, the *analysis*, presents the study's empirical findings, starting off with the qualitative content analysis and augmenting that data with the results of the narrative analysis where applicable. Furthermore, the section *Limitations and Outlook* (4.2) defines the study's constraints and presents some perspectives for future work on the topic. Finally, the *Conclusio* sums up the results of this study on personal photography and self-expression.

Synonymous Terms

Given the diverse academic culture of the two fields that are being used to approach the subject, *Science and Technology Studies (STS)* and *Human Computer Interaction (HCI)*, synonymous terms used in research material from either side can be encountered. To maintain the original spirit of discussion in the research material quoted in this thesis, the terms *Personal Photography* (as coined by Van House) and *Snapshot Photography* (as used in the chapter *History of Photography*, based on Sarvas et al.) shall be used synonymously and interchangeably.

Similarly, to increase readability, the terms *interviewee(s)* and *participant(s)* are being used interchangeably as well.

CHAPTER 2

Theory

Man (looking at a Stieglitz's photo of 'Equivalents'):
"Is this a photograph of water?"
Stieglitz: "What difference does it make of what it is a photograph?"
Man: "But is it a photograph of water?"
Stieglitz: "I tell you it does not matter."
Man: "Well, then, is it a picture of the sky?"
Stieglitz: "It happens to be a picture of the sky.
But I cannot understand why that is of any importance."

Alfred Stieglitz [White and Adams, 1984, p. 9]

This chapter aims to provide theoretical background on the topic at hand and (personal) photography in general. Starting with a basic survey of relevant works in the fields of Human Computer Interaction (HCI) and Science and Technology Studies (STS), the chapter leads on to a brief history of photography and continues on with an exposé on the approaches of Roland Barthes and Vilém Flusser to establish a theory of photography in a philosophical sense. The chapter closes with an overview of the online art-sharing platform deviantART.

2.1 State of the Art: HCI & STS

This section aims to provide a brief summary of pre-existing research on the topic of this thesis. As mentioned in the introduction (cf. chapter 1), research on personal photography in terms of *self-expression* is generally scarce (with, possibly, the exception of Pierre Bourdieu's work [Bourdieu and Whiteside, 1990]) - consequentially, this survey mostly sums up research of the remaining three social uses of personal photography (*social relationships, memory and self-presentation*).

Following van House's assessment, academic research in the field of personal photography can be attributed to either research in Human-Computer Interaction (HCI) or Science and Technology Studies (STS), although the roots of both of these areas are to be found in Cultural and Social Science research [Van House, 2013, p.131]. In the field of STS, research on the daily uses of personal photography prevails, answering questions on practical applications of and motivations for the use of personal photography. Research based in the field of HCI focuses on the technologies being used, their evaluation, as well as on the development of new or improved technologies and artifacts.

Both areas have produced a variety of results, though neither broad interdisciplinary research nor specific research on personal photography focusing on (artistic) self-expression seems to have been conducted on the topic at hand.

STS

In the field of Science and Technology Studies, Bourdieu's *Photography: A Middle-Brow Art* [Bourdieu and Whiteside, 1990] - an analysis of photographic practices of French families - remains one of the few studies focusing on personal photography and aesthetics. Their study describes aesthetics, content and use of personal, '*family photography*' as a form of self-expression. Gonzales states about the book:

[They] situate the practice of photography within the larger social practices of collective identity formation. [...] It is the social practice of "taking pictures" and its interpretation which concerns Bourdieu and the four other co-authors of this study, rather than the specific photographs (middle-brow or otherwise) which are taken.
(Gonzales [Gonzales, 1992, p.126])

Bourdieu's analysis in the first section of the book centers around *identity construction* through personal photography and touches on issues of *class membership* and *class boundaries*. He constructs the families' photographic practices as the titular 'middle-brow'¹ art - an art that is "[...] medium, average, common." [Gonzales, 1992, p.129] The book's second part contains studies by Castel and Schnapper, Chamboredon and Boltanski, investigating those photographic practices that deviate from the norm or 'average': *camera clubs*, *artists* and *professional photographers* [Gonzales, 1992, p.129]. This contrasting juxtaposition presents an interesting finding: while the *camera clubs* define their own set of rules regarding aesthetics, the *photography artist* "[...] appears as an individual with an autonomous and arbitrary aesthetic." [Gonzales, 1992, p.130]

Although *Photography: A Middle-Brow Art* centers on 1960s France, it is still regarded as a seminal piece of research, despite its age and the social and technological developments, due to its (at the time) unique approach to photography as a social practice as opposed to a study of photographs as societal artifacts.

Following this credo, a number of more recent studies on family photography as well as tourist photography try to contextualize personal photography in social practice.

¹The original French title was '*un art moyen*'

Gillian's case studies (for instance, *Family photographs and domestic spacings*) focus on the relevance of family photographs and the relationship between family photography and the domestic space, with an additional emphasis on the role that women had in the display and creation of these photographs[Gillian, 2002, Gillian, 2004].

Van Dijck takes a closer look on the use of digital photography for *self-presentation* and identity formation, as well as *communication*. Specifically, van Dijck explores the impact of readily available photo-manipulation tools on the individuals engaging in personal photography practice and on their social context[van Dijck, 2008]. Similarly focused on social practices involving photography, Khalid and Dix concentrate on researching a community of Malay expats at the University of Lancaster and their use of 'Photologs' [sic] as part of their social interactions[Khalid and Dix, 2010].

Nancy van House published a number of research papers and articles on personal photography and its social uses, coining the term *Personal Photography*. In *Personal photography, digital technologies and the uses of the visual*, she defines personal photography as "[...] that which is done by non-professionals for themselves and their friends and intimates." [Van House, 2013] This is a definition this thesis utilizes as well. Drawing on a broad range of studies in both *STS* and *HCI*, she interviews film and digital photographers, camera phone and Flickr users, based on the interview technique 'photo elicitation'. This technique consists of the interviewee and the interviewer reviewing photographs taken by the interviewee and presenting a visualization that represents both the time the photograph was taken and the partner it was shared with [Van House, 2006]. Through this technique, it was possible " [...] to guide the interview, stimulate memory, or instigate conversations about a particular subject", leading to richer interviews [Van House, 2006, p.1464]. The findings of the study show the increased use, quality, diversity and frequency of digital photos in comparison to analog photography, as well as the shift in motifs from the special to the mundane; furthermore, the study sheds light on sharing and viewing practices, issues of privacy and ownership. Finally, it is this study in which van House develops the four distinct categories of social use this thesis is based upon: *memory*, *relationships* or *communication*, *self-presentation* and *self-expression* [Van House, 2013, pp.130-131].

The large scale study referenced above also draws on van House's own past work, which is worth mentioning to allow a more detailed look at personal photography practices. First, *The Uses of Personal Networked Digital Imaging*, published 2005, focuses on camera phone use in particular, investigating different and emerging camera phone uses and sharing habits [Van House et al., 2005]. Even earlier, 2004's *From "What?" to "Why?": The Social Uses of Personal Photos* presents a first attempt at classifying social uses of photography, and inadvertently illustrates the impact of technological advancements on the current *era of ferment* brought on by digital photography (cf. chapter 2.2): given that percentage of camera phones was on the rise at that time, but had not yet reached the market saturation of today, the social use of *communication* or *relationships* was not yet as established and does not emerge in the findings. Secondly, in *Technologies of memory: Key issues and critical perspectives*, van House's interest centers on the use

of digital personal photography to support *memory*, as she explores the digitalization of our collective memory and the hazards brought forth by these developments[Van House and Churchill, 2008].

HCI

Research as part of the field of HCI centers on the influence, development and evaluation of technologies related to photography as well as their social and scientific uses. They focus on either the camera technologies themselves, interface and interaction theories or secondary technologies facilitating sharing, organizing and manipulating photographic material.

Hall et al. used Lomography as a tool for participatory design with children in their study *Inspiring Design: The Use of Photo Elicitation and Lomography in Gaining the Child's Perspective*, investigating a similar *photo elicitation* technique as employed by van House to aid in the creation of a learning application on water safety[Hall et al., 2007].

Concentrating on the evaluation of existing photographic tools for sharing, Thom-Santelli et al. investigated the use of an internal photo-sharing application within a large company, and suggest design improvements for such systems[Thom-Santelli and Millen, 2009]. Similarly, Frohlich et al. interviewed families about their use of conventional (analog) as well as digital photography and Photoware (software facilitating sharing of the resulting pictures within their peer groups), creating a snapshot of photo sharing practices in the early 2000s[Frohlich et al., 2002]. Also putting *sharing* in the spotlight of their investigation, Jung and Connelly conducted a survey of existing photo-related applications and present and evaluate design ideas for future applications[Jung and Connelly, 2007].

Besides the evaluation of software products facilitating personal photography, a wide variety of research on photography hardware and physical technologies for photography exists. For instance, as early as 1998, Steve Mann presented *WearCam*, a camera-supported system for “*wearable tetherless computer-mediated reality*”, which combines multiple technologies, such as head-mounted displays, wearable cameras and location- and head-tracking systems; similarly, yet a decade later, Ljungblad evaluated an experimental camera called ‘Sensecam’, which takes pictures without the need for user interaction beyond turning it on, and thus documents what the users see and experience[Mann, 1998, Ljungblad, 2009].

While one can imagine the tools and technologies investigated or presented in the studies mentioned above in the context of personal photography and self-expression, none of the studies reviewed them in this context.

2.2 History of Photography

At least three different approaches to outline the history of photography have been taken in the past, focusing on the development of *technological inventions* that made different types of photography possible, on *social practices* and the *content* of photographs, or follow the economic developments, the ‘business drivers and models’ that increased the popularity of photography, and the organizations promoting it [Sarvas and Frohlich, 2011, p.12]. Given that a complete account of all or any of those aspects of photography history would exceed the scope of this work, a reduced summary based on Sarvas and Frohlich’s “*From Snapshots to Social Media - The Changing Picture of Domestic Photography*” will be employed to introduce the major themes, concepts and milestones of photography since the early 19th century until now. [Sarvas and Frohlich, 2011]

Given the specific topic of this thesis and its concentration on personal photography (as opposed to commercial or professional photography), Sarvas et al’s history is more relevant to the understanding of the technological and sociological developments involving photography than other works on the topic with a broader focus. For instance, Mulligan and Wooters excellent “*A History of Photography: From 1839 to the Present*” [Mulligan and Wooters, 2012] is a historically structured collection of works by professional and artistic photographers (and as such would be attributed to the aforementioned approach of cataloging the *content* of photographs throughout the decades), but presents a skewed view, since it does not incorporate personal photography at all. Likewise, the “*Focal Encyclopedia of Photography*” by Michael Peres [Peres, 2007], while astoundingly detailed, concentrates on a technological perspective in its section on the history of photography, omitting the social aspects of domestic or personal photography.

Sarvas’ and Frohlich’s approach lies rooted in Science and Technology Studies (*STS*) and Computer Supported Cooperative Work (*CSCW*), both being disciplines emphasizing that technology and social structures are intertwined aspects of a ‘socio-technical system’, influencing each other and being influenced in term by the social, economical and historical context surrounding them. Thus, as they state, a history of (domestic) photography should “*combine insights from technology, practice, and business perspectives*”. The following sections will be based on their approach, outlining the model they use to describe the “*cyclical evolution of technology*” in general and defining the major ‘*technological paths*’ of photography in particular.

On technological paths, eras of ferment and dominant designs

Sarvas and Frohlich base their history of domestic photography on a model of “discontinuities and dominant designs” as described by Anderson and Tushman [Anderson and Tushman, 1990] . As they state, technological evolution is not a linear or cumulative process, but rather a cyclical one - an established technology defines a certain *technological path*, which is disrupted by a *radical invention*, creating an *era of ferment* during which emerging technologies compete against each other to become the new dominant

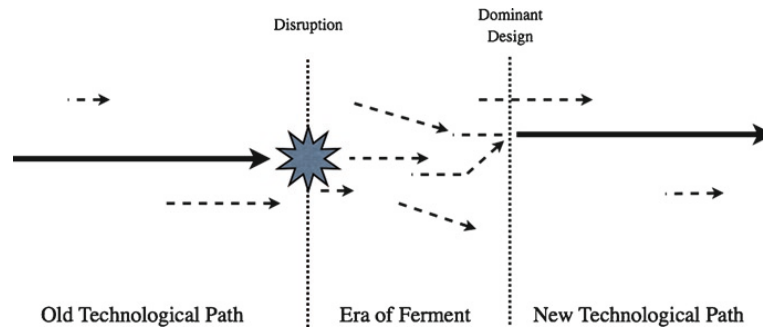


Figure 2.1: Technological Paths, ©Risto Sarvas 2010[Sarvas and Frohlich, 2011]

design, thus forming the next technological path. (cf. fig. 2.1) Anderson and Tushman define this radical invention as a *technological discontinuity*.

It should be noted that their definition is leaning towards an economic view on socio-technological development - for instance, their literal definition of said *technological discontinuities* describes them as “*innovations that dramatically advance an industry’s price vs. performance frontier*”[Anderson and Tushman, 1990, p. 1]. Nevertheless, this view still includes sociological aspects, such as the consumer’s influence on the selection of the new dominant design - in fact, they identify the economic aspects as only one of three aspects influencing this selection: the technology itself, the business models monetizing the technology and the users, whose practice of using certain technologies is enabled by the industry creating and selling the consumer products they can choose from.

Not all inventions are radical, of course - *incremental* or *conservative* inventions still influence the advancement of certain technologies, but they do not trigger an era of ferment and serve more to improve and support “*existing, established business and industry structures, popular practices, and technological systems*” [Sarvas and Frohlich, 2011, p. 14]. For instance, the addition of face-recognition software as an improvement to current camera phone technology is, in the broader sense, an invention that arguably has had an influence on the way the smart phone cameras are used, but it has not triggered a technological revolution or introduced radical changes in the technological path of said technologies. These changes tend to meet less opposition than radical inventions, since the stakeholders have a vested interest in maintaining the *status quo* and keeping the technologies they profit from dominant and stable.

In the case of domestic photography, Sarvas et al. identify three technological paths: *The Portrait Path*, *The Kodak Path* and *The Digital Path*. The portrait path is situated roughly between 1830 and 1888, starting with the first attempts at capturing a photograph and ending with the introduction of the first Kodak camera in 1888. Following this, the Kodak path started and continued until the early 1990s, when the first digital

photography technologies became more widely available, and started the current *era of ferment*. The final, digital path, is still in progress. [Sarvas and Frohlich, 2011, p. 20-21]

The following sections will illuminate the milestones and significance of each path as described by Sarvas et al.

The Portrait Path

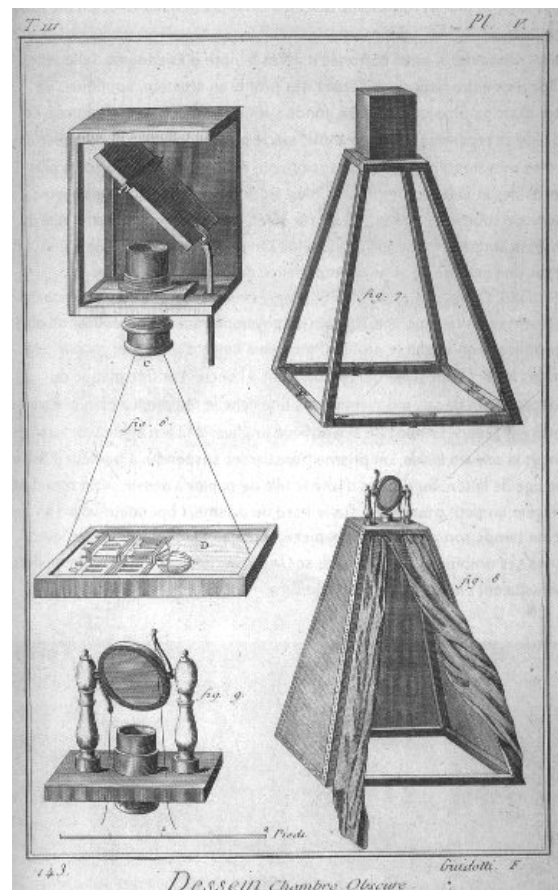


Figure 2.2: Camera Obscura, from the Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers [Diderot, 1781]

In many ways, the success of photography was based on a personal, or rather: private need, as opposed to a professional or commercial one: the rising middle class in Europe around the 1820s and 1830s was quite interested in obtaining portraits of themselves as a sign of social status, but painted portraits were out of their financial range [Sarvas and Frohlich, 2011, p. 23]. An affordable way to create *one's likeness* was in high demand, and although similar technologies existed (for instance *Silhouettes*

and *Physiognotraces*), they did not produce a likeness of the same quality as a portrait would.

Before the invention of photography itself, its two prerequisite technologies were already widely known: The *camera obscura* and the photosensitive properties of certain chemicals. The *camera obscura* (literally a *dark chamber*) projects light through a pinhole onto a flat surface - optionally rotating the (otherwise flipped) image utilizing a mirror (cf. fig. 2.2) - a technique that had been known for centuries. Similarly, the *camera lucida* is an adaptation utilizing this concept - a device that superimposes an image from a pinhole onto a flat surface as a drawing aid. This device might have helped painters achieve a more realistic painting style, as David Hockney proposed in his book *Secret knowledge: rediscovering the lost techniques of the old masters* [Hockney, 2001] (a controversial theory that has become known as the *Hockney-Falco-Thesis* that proposes that the increase in realism in paintings since the Renaissance is a result of using such devices) - but there seems to be no suggestion that such a device would have had an impact on the affordability of the paintings themselves.

The definitive answer to the question “Who invented photography?” remains elusive - as Sarvas et al. enumerate, others have listed up to 24 people who claimed to be the inventors of photography ([Sarvas and Frohlich, 2011, p. 24]). Of all these, *Louis Jacques Mandé Daguerre* and *Joseph Nicéphore Niépce* stand out for being instrumental in popularizing photography: Niépce managed to record an image on a pewter plate in 1827, and Daguerre refined the process until it was commercially viable, but sold his ‘invention’ to the French government under the condition that it would be turned over to the public domain. Shortly after Daguerre had published his patent in 1839, William Henry Fox Talbot, an Englishman who had been working on a similar process published his technique, which involved not copper plates but paper covered in silver nitrates. These *calotypes* or *Talbotypes*, as opposed to Daguerre’s *Daguerrotypes*, recorded a *negative* image (light parts in the picture were dark parts in the recorded scenes and vice versa), which needed to be re-recorded onto another photosensitive piece of paper (by shining light through them) to produce a *positive* image.

In the following decades, the two technologies competed to become the dominant design - in the beginning, the sharper image quality of the *Daguerrotypes* and the fact that they were royalty free in France gave them an advantage in the 1840s over the *Talbotypes*, whose positive/negative process of creation was more complex and whose image was softer and more grainy, making the *Daguerrotypes* the dominant design. [Sarvas and Frohlich, 2011, p. 28] Nevertheless, improvements in the process of creating the negatives for the *Talbotypes* using *wet collodion* on the one hand and the invention of the albumen print process for the positives gave rise to the *Talbotypes* as the new dominant design in the 1850s, which they remained until the 1870s and the *fin de siècle* respectively. During that time, a number of improvements and variations of the capture process emerged, such as *tintypes* (or *ferrotypes*) and *ambrotypes*, both of which pro-

duced non-reproducible photographs (since they combined creation of both positive and negative into a single step).

The technical advantages of either process were intrinsically linked to the technologies' two main applications: *personal portraits* on the one hand and *landscape photography* on the other. Studio portrait photography, emerging from the hitherto expensive and exclusive portrait painting business, drew people from a variety of professions to become photographers:

The new photographers came from the professions that the new technology replaced: especially in France, it was the miniature and landscape painters who took up photography, as well as engravers and draughtsmen; but also watchmakers, opticians, tinkers, and other artisans saw a business opportunity in portrait photography. (Sarvas et al. [Sarvas and Frohlich, 2011, p. 41])

At the same time, landscape photography became more prevalent: starting with famous scenes, places, monuments and natural formations, photographs were mass-produced and retailed as early as 1840. Both portrait and landscape photography relied on Daguerrotypes in the beginning, and Daguerrotypes stayed the preferred technology for portraits throughout the century - for personal portraits, reproducibility was not an issue, and the better picture quality outweighed the other concerns. For landscape photography, on the other hand, the necessary gear for producing Daguerrotypes was inhibiting, and the images needed to be reproducible in a mechanized way for the mass market - consequently, these factors added to the Talbotype process's progress to (including the wet collodion and albumen print technique) become the *de facto* standard for landscape photography. [Sarvas and Frohlich, 2011, p. 34] Thus, as the stock photography business of landscape and scenery prints gained importance, the metal plate processes slowly lost their popularity (although tintypes were used until the early 20th century) due to the Talbotypes support of the business models and practices in demand at the time.

The commercial success of the albumen prints gave rise to a specific product: the *carte-de-visites*. As Sarvas et al. describe, the *cartes-de-visite* were “[...] *the portrait photography format for mass production*” ([Sarvas and Frohlich, 2011, p. 35]), a 63mm by 100mm albumen print, pasted onto a cardboard frame or *passepartout*. The dramatically reduced price of these *cartes* - less than one eighth of the price of a single Daguerrotype in 1851 [Sarvas and Frohlich, 2011, ibd.] - was based on French studio photographer *André Adolphe Eugène Disderi*'s technique of exposing multiple images on the same glass plate, allowing mass production of over a million prints for a successful business. The industrialization of the process - breaking it up into separate tasks, fit for unskilled laborers - allowed “[...] *the craft of photography [to be] transformed into an industry*” [Sarvas and Frohlich, 2011, ibd.].

The popularity of the *cartes* had a number of social effects. For one thing, the visual code of the *cartes* was strictly defined, partly imitating portraits of celebrities of

the times (Sarvas et al. mention Emperor Napoleon III as an example), demonstrating the subjects membership to a social class - following Van House's four distinct uses for modern-day personal photography, their use would be *self-presentation*, similar to profile pictures on social networking sites. [Van House et al., 2005, p. 1]. Secondly, the *cartes* gave rise to a secondary industry: the parallel business of manufacturing and selling '*the family album*'. Contrary to the currently prevalent use, the family album contained not just photos of the friends and family, but also *cartes* depicting aristocrats and public figures, thus "[...] *effectively linking the family members and their relatives with eminent individuals of politics, power, and pedigree, as well as celebrated symbols of nature and 'high culture'*." [Sarvas and Frohlich, 2011, p. 39]. Besides creating revenue out of photographing aristocrats and selling the copies, the *cartes* had an additional effect: they enabled members of the upper middle class to achieve fame, promote themselves and make a business out of selling portraits of their own. *Sojourner Truth*, an advocate against slavery in the United States, used the *cartes* to promote herself and her message, the actresses *Sarah Bernhardt* and *Lillie Langtry* both got paid for having their photographs taken and subsequently made money off of selling them (cf. [Goldberg, 1993, p. 112]), and *Charles Dickens* was paid a fee for every photograph taken of him while on his tour of the United States ([Sarvas and Frohlich, 2011, p. 40]).

Summarizing the *Portrait Path*, Sarvas et al. characterizes it as "[...] *a transition from portraits to mass-produced portraits.*" [Sarvas and Frohlich, 2011, p. 43]. Through the availability of the technology and the growth of businesses developing and profiting from it, the people gained access to affordable portraits (as well as mass produced stock photographs), and since these could be mass-produced by the photography studio, they could afford to buy multiple copies and to give them away to friends and family as well - which lead to photographs successfully permeating society almost world-wide in just a few decades.

The Kodak Path

Photography was booming in the last quarter of the 19th century, but it's true success was still limited by the fact that, in order to practice photography (be it as a profession or as a serious amateur), one had to invest a substantial amount of both time and money into it. Photography equipment was not only expensive, it was also complicated, and without acquiring the needed skills, one could not be certain of the result's quality. This fact was the contextual premise on which *George Eastman* built his *Kodak* company - catering to "*ordinary people*" in terms of skill and available finances, and making photography truly accessible to the masses and thus sparking what Sarvas et al. call "*the snapshot revolution*" [Sarvas and Frohlich, 2011, p. 47]

In 1871, an alternative to the *wet collodion process*, the *dry plate method*, was introduced by *Richard Maddox*. Contrary to the *wet collodion* process, it didn't involve coating a plate with a liquid, but rather coating a glass plate with a silver-bromide gelatin. Although the success of this method was by no means instant (due to estab-

lished business practices and their reluctance to change), the fact that the *dry plates* could be prepared in advance (contrary to the *wet collodion* plates, which could only be used for a few minutes after preparing them) gave the new process an advantage by allowing the plates to be centrally prepared in a factory and sold ready to use. *George Eastman*, having developed an interest in photography in the 1870s, established the *Eastman Dry Plate Company* in 1881.[Sarvas and Frohlich, 2011, p. 49] Although the company was growing and became the second largest manufacturer of dry plates in the first half of the 1980s, the competitive nature of the business allowed for little aspirations to creating a monopoly, which spurred Eastman to try replacing the glass plates altogether, directing his interest at *film photography*. By 1885, he had developed and patented his own system of roll holder and paper film, but the targeted audience of professional photographers and serious amateurs did not respond to the product, which prompted him to direct his attention to a new market - the general public. With his patent on roll film, all he needed was a camera - and after three years of research and development, Eastman started manufacturing the first camera targeted at consumers: the *Kodak* camera.[Sarvas and Frohlich, 2011, p. 51]



Figure 2.3: Kodak Camera ²

The *Kodak* camera was embedded in Eastman's business plan: Besides the initial revenue through sales of the camera (at the time of its unveiling, the camera cost 25\$), it came with a pre-mounted roll of film allowing 100 exposures. After they were exposed, the camera needed to be sent as a whole back to the company, which would develop the film, create prints, install a new roll of film and send it all back in 10 days, charging 10\$ for the service - a process which was improved in 1891 due to the development of the *daylight loading film roll*, allowing the customers to change the film rolls themselves and removing the need for sending in the whole camera to develop film. Although the camera's price was by no means affordable for everyone (with an average monthly wage of 5\$, it was still a significant investment[Sarvas and Frohlich, 2011, p. 53]), it was much cheaper than other cameras, and became an instant success. The main source of revenue for Eastman's *Kodak company* was not the camera sales but rather selling and developing the film rolls, with the latter eclipsing the first by about a quarter in 1900 already.

As Sarvas et al. point out, the main characteristics of the Kodak camera were its *mobility and ease of use* - the camera itself weighed a mere 634 grams, and the externalization of the development process reduced the complexity of creating a picture immensely. Besides allowing the general public to take pictures, these characteristics enabled a variety of other fields to employ photography more easily, including Botanists, Doctors and Explorers, among others.[Sarvas and Frohlich, 2011, p. 53] Regardless of the camera's success in these specialized fields, Eastman's successful business was based on a shift in distribution of wealth in the first decades of the 20th century: the new, white-collar lower middle class had more wealth and spare time at their disposal, allowing them to pursue leisure activities. Eastman realized this and pursued a strategy relying heavily on advertising to introduce the camera not as a hobby for the serious amateur, but as a leisure time activity for everyone. West sums up the difference between the new *snapshotters* and the Victorian gentlemen amateur:

Cultivating what they often called a "playful" interest in activities such as gardening, cycling, and sailing, these amateurs expected amusement from their hobbies, not enlightenment. [...] Indeed, the only criterion that demarcated "dabblers" from the larger public was their possession of the necessary equipment for their hobbies; in other words, ownership, rather than skill, qualified them as amateurs. (West [West, 2000, p. 43])

As such, these new amateurs were highly susceptible to the advertising campaigns, allowing their photographic practices to be shaped by Kodak through publishing books, magazines and even a radio show (for instance, *At Home with the Kodak*[York, 1924] or *Kodakery*[Eastman Kodak Company of New York, 1924]). These marketing campaigns suggested a very specific, albeit narrow, set of activities at first and concentrated mainly on the outdoors, including but not limited to leisure-time activities such as tennis, fish-

²By Kodakcollector (Own work) [CC-BY-SA-3.0 (<http://creativecommons.org/licenses/by-sa/3.0/>)], via Wikimedia Commons, accessed 07.08.2014

ing or vacations in general.

The fact that the cameras worked best in good light conditions due to the films limited sensibility supported this, and it was not until the 1910's that new, more sensitive film was created and a shift to photography in the indoors was promoted by Kodak - a process that was complete by the end of World War I [Sarvas and Frohlich, 2011, p. 57]. By promoting and defining this narrow picture of the *Kodakers* (a name Eastman's company coined for domestic photographers), he also limited their photographic practices - as Sarvas et al. state:

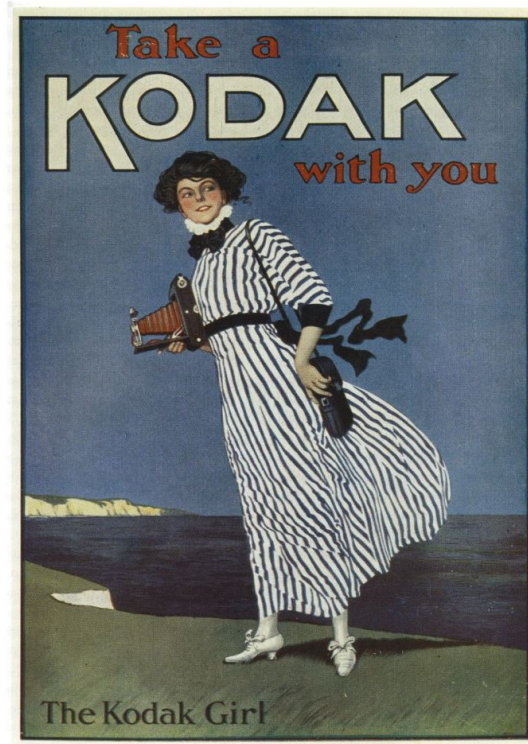
With innovative technology and marketing, Kodak planted the seeds of the snapshot culture and shaped its characteristics. One of them, as discussed above, was confining snapshots to the private sphere of the home. [...] However, absent from the Kodak way of photography was the public element of domestic photography: pictures outside the family context and outside the private domestic sphere. 'Kodakers' did not take photographs for news purposes, to create art, to shape public opinions, to present themselves for a public audience, to sell pictures, or simply to partake in public discourses. (Sarvas et al. [Sarvas and Frohlich, 2011, p. 59])

Eastman realized early on that women were a new target audience and potential market for Kodak's products and services. This stance was reflected in Kodak's advertisement's depictions of women, starting out with the *Kodak girl*, an iconic picture of a young woman that symbolized the young, fashionable and independent "[...] *New Woman at the beginning of the twentieth century.*"[Sarvas and Frohlich, 2011, p. 59].

Accompanying the shift from photographing mainly outdoor leisure-time activities to indoor, portrait and family photography, the portrayal and role of women in Kodak's marketing strategy shifted towards women as mothers, who would, through photography, create and represent the modern home. Following this, it was also mainly their responsibility to curate the family albums, which took the form of photographs accompanied by oral narratives and very little text - a structure supported by the Kodak company's advertisements that tried to frame viewing photographs as an act of telling or viewing a story. [West, 2000, p. 174]

Color film was developed by Kodak in the 1930's and became widely available after World War II. Although it was used extensively in professional photography - for newspapers, magazines and similar print products - the majority of snapshotters did not switch to color photography until the 1960's, influenced by the decades shift to colorful expression in general and the media's depiction of family life in color in particular. [Sarvas and Frohlich, 2011, p. 62]

³ From: State Library of Victoria, <http://www.slv.vic.gov.au/latrobejournal/issue/latrobe-76/fig-latrobe-76-097a.html>, accessed 28.08.2014. In: *Kodak Girl*. Australasian Photographic Review, 23 January 1911



Kodak Girl. Australasian Photographic Review, 23 January 1911. A 770.5 AU7P v.18

Figure 2.4: The Kodak Girl ³

Although other companies like the German Agfa or Japanese Canon and Nikon were enjoying similar success, their influences on photography are limited to small improvements to camera and film technology, leaving both the principal process of film exposure and centralized development by laboratories that was shaped by George Eastman and Kodak untouched.

After the rise and success of photography in the 19th century, photographs were either public or private, depicting celebrities, sceneries and public figures or members of the family and extended peer group. While public photography shifted from the *carte-de-visites* to depiction of current events in magazines and newspapers after the invention of the half-tone process, private or personal photography (after it became available to the general public) continued on its path of depicting friends and family first and foremost. Kodak's influence on photographic practices changed only the surrounding scenery from a portrait setting to leisure-time activities and indoor home photography, leaving the main motifs - peers of the photographer - unchanged. This separation of public and private photography created two separate technological paths - as Sarvas et al. state,

[...] *business, technology, legal structures, and practices [...] kept the two separate for almost a century. Only now, in the twenty-first century, are the two infrastructures converging (public mass media and private ‘self-made’ media).* (Sarvas et al. [Sarvas and Frohlich, 2011, p. 65])

Discontinuities and the Polaroid Land Camera

Kodak’s reign over consumer photography and its practices was not entirely absolute. Most notably, Edwin Land’s Polaroid cameras were significant competitors to the established film-roll exposure and development process.

Edwin Land introduced the first Polaroid camera, named *Model 95*. Contrary to Kodak and other companies cameras, the Polaroid camera produced an image almost instantaneous, without the need to have film developed in a laboratory - a feature that gave Polaroid an edge over it’s competitors. However, the price limited it’s success in the beginning, as Sarvas et al. point out:

For more than a decade, Polaroid cameras were high-end luxury cameras for snapshooters. They cost over \$50 and were, therefore, not a real alternative to inexpensive point-and-shoot cameras. (Sarvas et al. [Sarvas and Frohlich, 2011, p. 68])

This changed in 1967, as the new *Swinger* model came out, which was targeted at the teenage baby boomer generation and became a great commercial success with over seven million cameras sold in three years. Polaroid’s success continued until the early 1980s, when almost half of all American households had one of Polaroid’s instant cameras.[Sarvas and Frohlich, 2011, p. 70])

All this represented a clear technological discontinuity with the *Kodak Path*. In his article *Polaroid into digital*, Buse distills three main features distinguishing the Polaroid cameras from their competitors: The speed with which the image is appearing, the automated process of development, , and the uniqueness of the print (since there are no negatives, reproduction of the print is difficult) [Buse, 2010]. Of these three, the first one seems the most significant: Given the fact that the delay between taking the snapshot and being able to view it was (virtually) eliminated with instant photography, it would seem likely that this technology would have impacted the photographic practices of consumers greatly and posed a serious threat Kodak’s established business practice. But despite Polaroid’s efforts to market their cameras as a new way of taking photographs, the hegemony of the roll-film and development process was not replaced by instant photography. Sarvas et al. use this fact to illustrate how Kodak’s technology was not, in fact, inherently better, but that their success - and with it almost a century of photographic practice - was more influenced by business decisions, marketing plans and legal battles over patents than by technological advancements: Polaroid might have had the chance to become the dominant technology, but Kodaks aggressive marketing and legal pressure through patents limited Polaroid’s potential in the mass market [Sarvas and Frohlich, 2011, p. 71].

The Digital Path

The digital path, according to Sarvas et al., is not so much a technological path than an era of ferment - the events in question are too close in time to allow a more holistic view on them, and the technologies (and with them, photographic practices) are still changing too rapidly to extract historic narratives similar to the ones describing *The Kodak Path*. [Sarvas and Frohlich, 2011, p. 83] The approach chosen by Sarvas et al. concentrates, thus, on two aspects of the last two decades: the necessary *infrastructure* for domestic digital photography on the one hand and an academic survey of “*people’s practices with the new technologies and components of the domestic photography infrastructure.*” [Sarvas and Frohlich, 2011, p. 84].

Digital Photography Infrastructure

Digital photography is largely based on similar principles than film photography - registering light that hits a photosensitive surface. In the case of digital photography, the key technology was invented as early as 1969: charge-coupled devices (or *CCDs* for short). A *CCD* is a “*semiconductor architecture in which charge is read out of storage areas.*” [Holst, 1998, p. 2] Essentially, a metal-oxide semiconductor (*MOS*) or *photogate* is used to convert light into an electrical charge, which is then converted into measurable voltage and transferred into a storage gate, from which it is read out and converted into digital information. Although functional, the first *CCD* prototype created by Steve Sasson at Kodak did not create a new technological path immediately - it was not until the 1980s that the first consumer applications of *CCDs* were created (in the form of consumer video cameras or *camcorders* and so-called still-video cameras, which created still photography images utilizing the same technology as the video cameras). [Sarvas and Frohlich, 2011, p. 78] Given the vastly inferior quality of digital images at the time, film photography was not under threat of being obsolete for decades, and only 20 years later, in the early 2000s, digital cameras started outselling film cameras. [Sarvas and Frohlich, 2011, ibd]

Domestic photography infrastructure extends far beyond the camera itself. Just as the camera was only a small part of the business model and process for Eastman’s Kodak company, including the transmission of raw film material to the photographic laboratories, development and printing, as well as framing and displaying of the photographs, the infrastructure for digital photography includes multiple interlinked technologies. Contrary to the *Kodak Path*, though, these technologies were never monopolized by a single company, and thus needed to be based on certain standards of compatibility with each other. Sarvas et al. mention, that - although originally aimed at the television as the center of the home - digital photography soon started gravitating towards the Personal Computer in the early 1990s, parallel with the *PCs* rising popularity and distribution to US and European households. [Sarvas and Frohlich, 2011, ibd] A number of domestic photography infrastructure developed since the early 1990s replaced and eventually

⁴ ©Risto Sarvas, 2010. [Sarvas and Frohlich, 2011, p. 85]

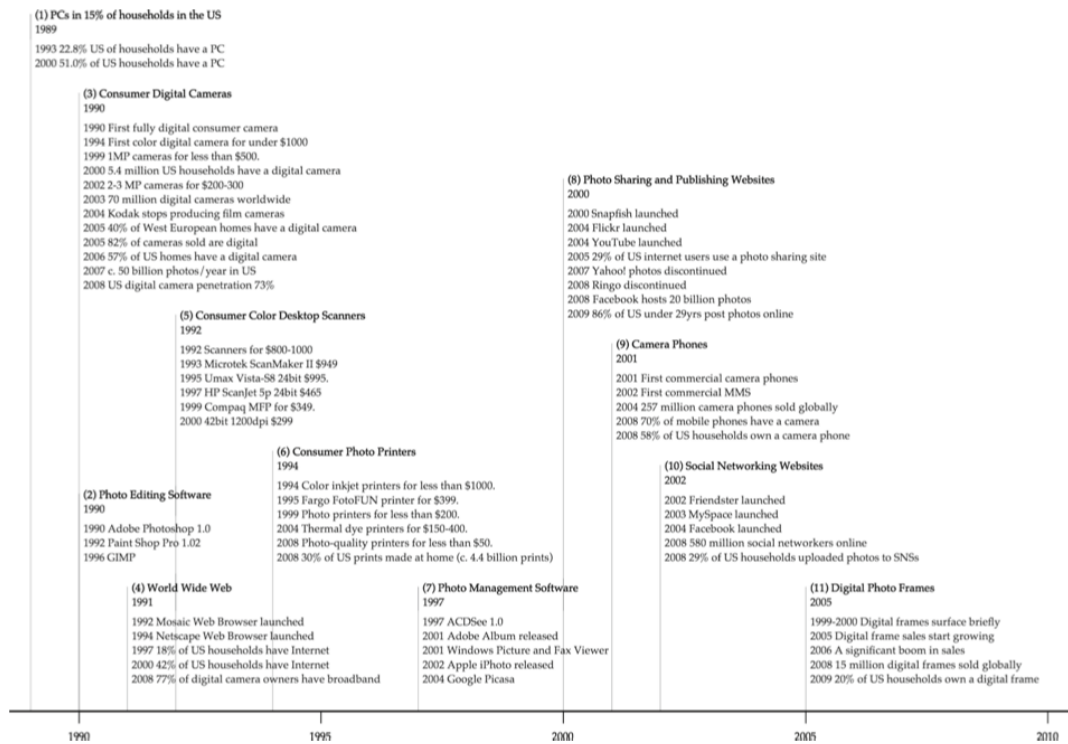


Figure 2.5: Timeline: Domestic Digital Photography Technologies ⁴

surpassed the elements domestic film photography utilized, including (in chronological order of development and distribution):

- Personal Computers (1989)
- Consumer Digital Cameras (1990)
- Photo Editing Software (1990)
- The World Wide Web (1991)
- Consumer Color Desktop Scanners (1992)
- Consumer Photo Printers (1994)
- Photo Management Software (1997)
- Photo Sharing and Publishing Websites (2000)
- Camera Phones (2001)
- Social Networking Websites (2002)

- Digital Photo Frames (2005)

Sarvas et al. visualized this chronological list in more detail as a timeline (cf. 2.5). Furthermore, they supply a description of how digital consumer photography overtook still photography condensed into a single paragraph:

How did the inferior electronic image capture technology overthrow the dominance of the vastly superior film? Step by step, the core technical elements of the domestic photography business were challenged and overtaken by alternative information and communications technology. First, the selling of film and prints was challenged by digital cameras and home computers (PCs) through which it was possible to view photographs without them being made into prints. Second, the resolution of digital cameras and printers combined to enable 'photo-quality prints', which were indistinguishable from those produced through film developing. Third, the need felt for prints was further challenged by the Internet, which enabled people to share digital images over distances. Finally, the camera phone challenged traditional camera sales by integrating the camera into a mobile phone, which made the camera just another aspect of the functionality of a networked and handheld multi-purpose device. [Sarvas and Frohlich, 2011, p.97].

The developments described in Sarvas et al's summary started with the digital consumer cameras. In 1990, the *Logitech Fotoman* digital camera was released, saving up to 32 black-and-white images on its 1 MB internal memory and costing just under 1000 USD. In 1994, the similarly priced *Apple QuickTake 100* allowed color images to be taken, by 2002, consumer cameras in the 2 to 3 megapixel range cost between 200 and 300 USD, and in 2004, more camera phones were sold than digital cameras. The final statistic Sarvas et al. point out is from 2005: By then, 82% of camera sales were digital cameras. [Sarvas and Frohlich, 2011, p. 90]

But not only the prevalence of the film camera itself was challenged - the steps that followed taking the photographs was transformed as well. The rise of affordable consumer printers and scanners in the mid-1990s presented an alternative to having laboratories print the digital images - a change that was heavily marketed by printer and scanner manufacturers as the new *home photo laboratory*. As Sarvas et al. illustrate, this presented a break with the film snapshot process that culminated in removing the development process entirely, either by automation, as Polaroid approached it, or by providing an external service, as Kodak did.[Sarvas and Frohlich, 2011, ibd.] While complicating the process slightly for the user, this development also sped up development considerably, resulting in a large number of photographs accumulating quickly on the snapshotters hard drives, which in turn created the need for photo-organizing or photo management software - a need that was met by both operating system manufacturers third-party software houses.

After Tim Berners-Lee opened up the World Wide Web to the general public in 1990 and when the Mosaic web browser was released in 1992, sharing photographs as a social activity evolved as well. Although the Web was no overnight success, sharing images was one of the first activities, be it via self-made homepages or simply email. [Sarvas and Frohlich, 2011, ibd.] As the percentage of households with access to the Internet grew throughout the 1990s, the number of photo-sharing services increased as well, both integrated into the aforementioned photo management software and as stand-alone services. As Sarvas et al. point out, this development was significant insofar as it integrated the sharing activities into a commercial service model - and although some of the businesses offering such services went bankrupt for lack of profitability, the amount of images shared online had reached a staggering 50 Billion by 2009. [Sarvas and Frohlich, 2011, 92]

The early 2000s saw another significant shift in domestic photography due to the introduction of a new kind of camera device: the camera phone. Although adding a camera was initially perceived as a superfluous feature by some, the phone industry continued to push the camera as a sales feature, leading to a steep increase in the number of phone models produced with one. [Sarvas and Frohlich, 2011, 93] As more and more phones had this feature, a new set of social practices involving snapshots emerged. Described as “much more complex and rich than any simple model of camera phone use would assume” by Kindberg et al. [Kindberg et al., 2005b, 49], camera phone use grew to be more personal both in subjects and sharing habits on the one hand, yet more ephemeral and short-lived in terms of the resulting photographs. [Okabe, 2005, p. 16, 17]

In their 2005 study “I Saw This and Thought of You: Some Social Uses of Camera Phones”, Kindberg et al. propose a taxonomy of mobile phone photography uses, including 2 *individual* and 4 *social* reasons for image capture (cf. Figure 2.6):

- Individual
 - Personal Reflection
 - Personal Task
- Social
 - Mutual Experience
 - Absent Friend or Family
 - Mutual Task
 - Remote Task

The rise of social network sites and services, such as *Friendster*⁵ in 2002, *Myspace*⁶ in 2003 and *Facebook*⁷ in 2004, further increased amount of images shared, to the point

⁵No longer in service

⁶<http://myspace.com>

⁷<http://www.facebook.com>

where Facebook hosted the largest amount of personal photographs worldwide in 2009, superseding even websites focusing solely on sharing of photographs (such as, for instance, Flickr⁸).[Sarvas and Frohlich, 2011, p. 94]

| | Social | | | | Individual | |
|-------------------|---|--------------|--|-------------|--|--------------|
| Affective | Mutual Experience. Images intended to enrich a shared, co-present experience (either in the moment or later as a memento). | 103 (35%) | *Absent Friends or Family. Images intended for communication with absent friends or family (either in the moment or later). | 63 (21%) | Personal Reflection. Images intended for personal reflection or reminiscing. | 120 (41%) |
| Functional | Mutual Task. Images intended to share with people co-present in support of a task (either in the moment or after the event). | 11 (4%) | *Remote Task. Images intended to support a task by sharing with remote family, friends or colleagues (either in the moment or later). | 23 (8%) | Personal Task. Images intended to support some future task not involving sharing. | 29 (10%) |

Figure 2.6: “A taxonomy of image capture, with numbers and proportions by category”, from Kindberg et al., 2005 [Kindberg et al., 2005a, p. 1546]

Finally, an innovation changed the way photographs could be displayed at home: the *digital frame*. First produced around the year 2000, and after a period of absence from the consumer markets reintroduced in 2006, they combine the features of classic, print photo frames and photo albums. On the one hand, they serve as improved versions of traditional ambient displays, as they are able to store and display a large number of different photographs, cycling through an album automatically. On the other hand, they offer a certain degree of interaction, allowing them to be used as a replacement to the family photo album, to show them to ones peers.[Sarvas and Frohlich, 2011, p. 95].

Summing up, the *Digital Path* is an era of ferment in progress. The new elements of snapshot photography that replaced the old, fairly straightforward ones (such as the film development service, family albums, etc.) are much more complex and heterogeneous in their design and interoperability. The home photo studio that consists of a PC, photo-editing and sharing software, a camera and perhaps a printer and scanner can take many forms depending on the choice of the consumer, and for each element, there are a multitude of options available. As Sarvas et al. demonstrate, this means that the net costs for snapshotters has increased since the *Kodak Path* as well, though the wide availability of cameras as part of current smart-phones offsets these costs. Furthermore, Sarvas et al. point out that the complex, heterogeneous home photography setups currently make a distinct, dominant business model similar to George Eastman’s Kodak company’s model nigh impossible.[Sarvas and Frohlich, 2011, p. 100]

⁸<http://flickr.com>

2.3 Theory of Photography

Extending beyond the historic aspects of how photography emerged and developed until today, the question ‘*What is photography?*’ touches upon a topic of relevance, both to the photographic scholar and the everyday photographer. To define that topic already presents us with a multitude of questions, each of which opens up an entirely different approach to answering the abovementioned question. Kriebel describes the struggle of answering the question of what the *subject* of a *Theory of Photography* would be:

Moreover, is it correct to say that it is the object - the photograph - that we theorize, or is it photographic practice, which would incorporate the psychologically and ideologically formed act of taking photographs and the processes of developing, reproducing, and circulating them in society? Or do we theorize their function? [...] Which Photography, exactly? [...] Photography is a manifold phenomenon, taking hold in discourses ranging from fine art to journalism, criminal investigation to optics.

(T. S. Kriebel, *Theories of Photography*, p. 5[Kriebel, 2013])

As the width of the topic clearly makes it impossible to answer these questions in a simple and concise manner, this chapter presents two exemplary approaches towards describing the photographic experience, based on Roland Barthes’ *Camera Lucida*[Barthes, 2000] and on Vilém Flusser’s *Towards a Theory of Photography*[Flusser, 2000].

Roland Barthes: Camera Lucida

Taking an individualistic approach, Roland Barthes’ *Camera Lucida* is as widely quoted as it is controversial [Kriebel, 2013, p. 20]. Barthes, born 1915, was a French philosopher concentrating on semiotics, the study of *signs and symbols*. In earlier works, such as his two essays *The photographic message* and *The rhetoric of the image*[Barthes, 1982], he describes photography as ‘[...] a form of coded, historically contingent, ideological speech [...]’[Kriebel, 2013, p. 13], opposing the idea that photographs follow a universal language any human observer would intrinsically understand. As Kriebel describes, Barthes attests photographs an *Edenic* state, in which they are ‘non-coded iconic messages’, but lose that state as soon as they come into contact with observers, and become culturally coded - switching from a *denoted* to a *connoted* state[Kriebel, 2013, pp. 14,15]. Furthermore, photographs would be *malleable*: since the cultural context in which they were perceived changes, their connoted meanings change as well.

Following the analysis of photography presented in his earlier essays, which contained a more political social critique executed through semiotics, his last book on photography, *Camera Lucida*, takes a less overtly political look at the private and personal photographic experience. Written shortly after his mother’s death - and incidentally, shortly before dying himself in a fatal car accident in 1980 - Barthes’ approach is less structured and more subjective in *Camera Lucida*, which is reflected in a much more personal language - a style characterized as ‘*maddening idiosyncrasy and ellipticality*’[Kriebel,

2013, p. 20]. It should be mentioned that the title refers to the actual *Camera Lucida* as described in chapter 2.2 only metaphorically and bears no reference to the physical object itself.

The book is split into two parts: In the first, Barthes tells us of his '*ontological desire*' to '[...] learn at all costs what Photography was "in itself" [...]' and proceeds to try (and ultimately fail) at delivering the answer through a series of short chapters on his experience as an observer of photographs [Barthes, 2000, p.3]. It is here that he develops the concept of *studium* and *punctum*, two antagonistic aspects of reading or interpreting photographs. The second part focuses mainly on his own, personal experience looking through pictures of his late mother, looking, as he puts it, "[...] for the truth of the face I loved"[Barthes, 2000, p. 67]. Subsequently, he finds what he was looking for in a photograph of his mother in the winter garden, and launches into an in-depth analysis both of his grief and the reasons for his choice of this particular photograph.

While deeply profound and full of insight, the second part is not as widely quoted as the first one, mostly due to it's personal nature and limited scope in terms of the photographic experience. Given this, the following section explicates the concepts behind *studium* and *punctum* as described by Barthes in the first part of the book.

Studium and Punctum

Barthes analysis of photography is already situated in a context of mass imagery, well after a time where a single photograph was considered a novelty or special in any way - both professional and personal photography are well established, and photography has permeated society on almost every level. It is within this context that Barthes asks how we read photography, how we distinguish photographs that pique our interest from those we find merely aesthetic and those we feel indifferent towards or even dislike[Barthes, 2000, p.16]. To answer the question, Barthes describes the process of browsing through a magazine and encountering a photograph, taken in 1979 in Nicaragua by Koen Wessing, during the *Sandinista Period*. The picture depicts an urban scene with two soldiers patrolling a street in full gear, while two nuns are crossing the street in the background. Barthes points out that this made him 'pause', although the photograph itself did neither please, interest nor intrigue him particularly, but comes to the conclusion that the elements grasping his attention are '[...] the co-presence of two discontinuous elements, heterogeneous in that they did not belong to the same world [...]' - the contrast between the soldiers and the nuns[Barthes, 2000, p. 23]. Taking this observation as a starting point, Barthes first postulates and then discovers a similarly contrasted dichotomy in other photographs in the same magazine, and, having established a rule, names the two qualities of a photograph *studium* and *punctum*.

Barthes starts out with the outwardly more accessible of the two, *studium* - the element he describes is based on the viewer's cultural and contextual knowledge of the photograph itself and the scene it depicts: for instance, being familiar with the political developments in Nicaragua at the time, or more generally, the concept and consequences of a country in the midst of a rebellion, as well the as myriad of interconnected bits of

information making up the instant understanding of what a photograph depicts that an informed viewer has. For a photograph to evoke such a reaction, it must be *understandable* by the viewer - which, as Kriebel points out, is possible because the information is present in a 'coded, cultural and ideological' form [Kriebel, 2013, p. 20]. As Barthes continues to elaborate, *studium* is a quality inherent in many photographs (although he does point out that the majority of photographs do not even contain that quality for him - they are 'inert'), leading him to the observation that it is 'no more than [...] a very wide field of unconcerned desire, of various interest, of inconsequential taste: I like / I don't like.' [Barthes, 2000, p. 27].

The second quality, *punctum*, resides much less in an intellectual sphere of understanding than in an emotional one. 'A photograph's *punctum*', writes Barthes, 'is that accident which pricks me', emphasizing the difference between *studium* and *punctum* in how the viewer interacts with the photograph: While the *studium* is a quality that needs to be actively sought out and investigated, that involves the photographer's intentions as well as the viewer's knowledge and rationality about the subject, the *punctum* actively engages the viewer, even 'shoots out' at him, and thus carries an element of surprise in it as well [Barthes, 2000, p.27,28]. Barthes classifies this element of surprise inherent to the *punctum* as one of five categories: the *rare*, the *numen*, the *prowess*, *contortions of technique* and *lucky find* [Barthes, 2000, p. 33]. The *rare* surprise comes with the rarity of the subject, presenting the viewer with something uncommon, hard to find or unlikely (Barthes cites photographs of people with anatomic deformities, e.g. a child with a vestigial tail). The second category, *numen*, surprises because of the contextual importance of the setting and the specificity of the moment - Barthes compares it to paintings of important moments in history - '[immobilizing] a rapid scene in its decisive instant' [Barthes, 2000, ibd]. The third and fourth are based on the photographers' skill and technique - *prowess* signifies the photographers' achievements or endurance to achieve a shot ('For fifty years, Harold D. Edgerton has photographed the explosion of a drop of milk, to the millionth of a second'), and *contortions of technique* describes what is now being called photo-manipulation (at the time of writing *Camera Lucida*, Barthes obviously referred to techniques like unusual superimpositions, perspectives or framing rather than digital post-processing of an image). Lastly, the *lucky find* evolves out of an unintentional element in the photograph that may only become evident after the photo had been developed.

The analogue nature of a photograph

Besides his elaborations on *studium* and *punctum* of a photograph, Barthes tries to analyze the nature of photographs themselves, centering on, as Kriebel argues, their relationship with the *referent* [Kriebel, 2013, p. 21]. As Barthes describes it, a photograph is immutable in its duality, and can not be separated from what it depicts; furthermore, due to the human tendency to '[...] conflate representation with the thing itself' [Kriebel, 2013, ibd], Barthes goes as far as calling the photograph itself - as in: the physical object - invisible, since we look at the photographs' *referent* rather than at the printed or

otherwise reproduced object⁹. Going a step further, Kriebel points out a second focus of Barthes' analysis: the *temporal nature* of photographs [Kriebel, 2013, p. 22]. Given the linear nature of time, each photograph's referent lies in the past, at the time the photo was taken, thus creating a link between the viewer and the depicted object or scene - Barthes calls this a *'testimony [...] not on the object but on time'* [Barthes, 2000, p. 89]. As such, he characterizes photographs as *analogue* - in the more literal sense of likeness (stemming from the Greek *αναλογος*, 'proportionate'): the depiction of a past moment, which produces a likeness, yet must not be mistaken for an exact representation. At this point, it is worth noting that this likeness is subject to interpretation based on the cultural context of both referent and viewer - the analogue nature of photographs makes it easier to relate to the photographs referent if the viewer shares that context, for instance. It follows that, according to Barthes, a photograph in its *'Edenic, [...] analogical state is a "message without a code" [...]*' [Kriebel, 2013, p. 27], and it becomes meaningful only through contextual interpretation.

Summary

Barthes, as controversially discussed as his work might have been, has proven a stepping stone for his successors in discussing photography. Not only are his concepts of *studium* and *punctum* widely recognized and quoted, but his ontological work on photographs has been influential in many ways. Going beyond scientific and theoretical research, his approach to the photographic experience outlined in *Camera Lucida* bears a universality that can be observed in common language and current photographic experience as well: for instance, the phrase that a photograph 'speaks to me' is an expression commonly found in the interviews conducted for this thesis, which would strengthen Barthes claim that *punctum* is an intrinsic quality of photographs that actively seeks out the viewer. If nothing else, Barthes has demonstrated the multiple facets of photography and the profound impact a simple act like glancing at a photograph in a magazine can have on the viewer.

Vilém Flusser: Towards a Theory of Photography

Vilém Flusser's *Theory of Photography* represents a more broadly defined approach towards photography than Roland Barthes' - while Barthes seminal work *Camera Lucida* is almost entirely focused on the individual's experience with photographs, Flusser's body of work is characterized by a more holistic style of reasoning, situating *images* within the larger framework of society, tracing back even to the roots of human civilization. This section aims to briefly sum up his work on media theory, images and society, in order to establish a larger sociological framework to base the results of the interviews on.

⁹Given that digital photography's methods of reproduction for photographs were in their infancy at best when Barthes wrote *Camera Lucida*, it is left to us to conclude that this dichotomy is an attribute inherent to a modern concept of a photograph as much as it is for the classic photographic print or negative.

Born in 1920 in Prague, Czechoslovakia, to Jewish parents (themselves academics), he managed to escape the national socialist regime of World War II in 1939 to London and from there on to Brazil, where he went on to hold the professorship for philosophy and communication theory. Due to the change of political climate in the 1970s, he and his wife moved back to Europe (first Italy, then France), where he lived until his death in a car accident in 1991[van der Meulen, 2010, p. 184]. During his time in Brazil, he wrote a series of essays and books centered on media theory, philosophy and communication theory, among them *Language and Reality*[Flusser, 1963]¹⁰; after leaving for Europe, this productive period continued, leading to works such as *Towards a Philosophy of Photography*[Flusser, 2000]¹¹ and *Into the Universe of Technical Images*[Flusser, 1985]¹². Parts of the essay collection *Media Culture*[Flusser, 1997]¹³ as well as the seminal *Towards a Theory of Photography* are being taken as the basis of this introduction.

Of Codes and Culture

Much of Flusser's work is centered around *codes*, which he traces back to the beginnings of early homo sapiens culture. He defines a *code* as a system of symbols that allow a process of translation between an experience and '[...] *that which it intends*'[Flusser, 2002, p.37] - they are, of course, a means (if not *the* means) of communication between humans. An early example of a code would be images like paintings - Flusser repeatedly uses cave paintings in Lascaux, France (created by early humans around 15.000 b.c.) to illustrate his point - which he defines as *two-dimensional* and *non-linear* (as opposed to the Alphabet, which is *one-dimensional* and *linear*).

Images share the unifying quality of *diachronicity*: the viewer takes them in more or less instantly, as a whole: even if there is a chronological order depicted, it is up to the viewer to construct it and not intrinsic to the image itself[Flusser, 2002, pp.37-40]. The alphabet on the other hand is a linear code whose *diachronicity* is resolved through *synchronizing* the meaning during the process of reading: the viewer's eye wanders along the path of the line from left to right (or right to left, respectively), discerning the temporal order of both meaning and structure of the symbols. This, Flusser hypothesizes, was the prerequisite for humans to develop *historical consciousness*:

With the invention of writing, history begins, not because writing keeps a firm hold on processes, but because it transforms scenes into processes: it generates historical consciousness.

(Vilém Flusser, The codified world[Flusser, 2002, p.39])

The gravity of historic consciousness being based on the codes we use leads Flusser to an alarming conclusion: since images are increasingly prevalent in human communication (Flusser uses the word '*flood of images*'¹⁴), he finds humanity to be in the midst of a

¹⁰original title: *Lingua e realidade*

¹¹original title: *Für eine Philosophie der Photographie*

¹²original title: *Ins Universum der technischen Bilder*

¹³original title: *Medienkultur*

¹⁴originally '*Bilderflut*'

'*crisis of values*'¹⁵. Analyzing the evolution of human codes, Flusser detects paradigm shifts in the way we *think* - the first shift happened with the creation of the Alphabet, which lead humans from a *magical/mythical* to a *linear/historic* way of thinking. With the creation of photography though, a second, current paradigm shift is taking place:

But almost immediately a new kind of image, the photograph, was invented, which began to threaten the supremacy of writing, and it now looks as if the days of historical, rational, conceptual thinking were numbered, and as if we were approaching a new type of magico-mythical age, a post-historical image culture. (Vilém Flusser, *The Future of Writing*[Flusser, 2002, p. 66])

This societal oscillation between media and script over the ages is not entirely original to Flusser; as van der Meulen points out, the Canadian communication theorist and philosopher Marshall McLuhan presented similar concepts in both his works *The Gutenberg Galaxy*[McLuhan, 1962] and his widely influential *Understanding Media*[McLuhan, 1973], which Flusser's work draws upon. Contrary to McLuhan though, who advocates for a shift towards media culture, Flusser characterizes it as a serious threat to written text and argues that it brings with it another danger: that of mass manipulation by (post-historic) images[van der Meulen, 2010, p.186-187]. The reason for this lies in the difference between pre- and post-historic images: While pre-historic images *mean* the world, post-historic images *mean* text (the same way that illustrations do) - shifting power from the reader/viewer to the image creators[Flusser, 2002, p. 67]. On a sidenote, Flusser's concern with propaganda and manipulation is to be seen within the context of the Cold War (although he only directly mentions it in one essay) and a plentiful amount of propaganda and media manipulation at the time, as van der Meulen argues[van der Meulen, 2010, p. 182].

Towards a Philosophy of Photography

Drawing on his work on *codes* and his exploration of their development as part of human history, Flusser's *Towards a Philosophy of Photography* is a closer examination of (at the time) modern photography, as well as an outlook on future aspects of photography through his contraposition of the *image* and the *technical image*. The book is centered around 4 terms, as Flusser tells us in the last chapter:

In the course of the foregoing attempt to capture the essence of photography, a few basic concepts came to light: image - apparatus - program - information. They must be the cornerstones of any philosophy of photography, and they allow for the following definition of photography: Brought forth and distributed by mechanical means according to a program, it is an image whose supposed function it is to inform.

(Vilém Flusser, *Towards a Philosophy of Photography*[Flusser, 2000, p. 76])

¹⁵At least at the time of writing of *The codified world* in 1973

These 4 terms require further description in the context of Flusser's work. First and foremost, the concept of *image* Flusser works with encompasses both the *traditional* and the *technical* image - and is based on the assumption that they are intrinsically different: while a traditional image (e.g. a painting) stems from the painter's imagination and interpretation of the world, a technical image (e.g. a photograph) is produced through an apparatus, with strictly limited influence by the photographer. In reference to the aforementioned categories, a traditional image is a pre-historic one, whereas a technical image is post-historic by nature. As van der Meulen points out, Flusser - in accordance with Walter Benjamin's *The Work of Art in the Age of Mechanical Reproduction*[Benjamin, 2008] - attests both images magical character, but differentiates them in the way they are created: in a process he calls *ritualization*, traditional images are based on *myths*, while technical images are based on *programs*[van der Meulen, 2010, p. 188]. According to Flusser, grasping this distinction is a vitally important prerequisite to the understanding and critical analysis of technical images.

The *apparatus* is a device that produces technical images. Since an apparatus is an application of a scientific text, Flusser argues that photographs themselves are '*[...] indirect products of scientific texts*'[Flusser, 2000, p. 14]. The term apparatus carries both etymological as well as ontomological significance: Etymologically, Flusser traces the word to the Latin *apparare*, to prepare, or to *make ready*, and thus inscribes a lurking, even predatory character to, for instance, a camera - ever ready to take a picture[Flusser, 2000, p. 21]. Secondly, an apparatus is, ontologically, a product of human culture - like other tools - and as such it *informs*:

Tools as such are objects which remove other objects from nature to put them where we are — in order to produce them. In doing so, they change the original form of those objects, impose a new form on them; in other words, tools inform objects.

(Vilém Flusser, *Towards a Philosophy of Photography*[Flusser, 2000, p. 23])

But contrary to other, common tools, an apparatus has an inherent quality that, according to Flusser, defines its essence: *Automation*. The process of 'informing' images, making them into photographs and thus technical images, is an automated process that is governed by a *program*. It is no coincidence that Flusser uses a term familiar to us through computers - as van der Meulen points out, Flusser '*[...] rethinks photography through the computer [...]*'[van der Meulen, 2010, p. 193]. To him, the *program* is subject to multiple definitions: on the one hand, it refers to the technical steps or operations a camera performs in the process of taking a picture, and on the other hand it also involves the influence the photographer has on the outcome through the technical choices involved in taking a picture (limited as they are by the options the camera allows to adjust). Extending even beyond these two technical definitions, van der Meulen describes Flusser's concept of *program* to include '*[...] the broad cultural context of present-day, post-industrial society in which photography operates.*'[van der Meulen, 2010, ibd].

The final term Flusser introduces us to is his concept of *information*. Van der Meulen juxtaposes Flusser's with Shannon's *Mathematical Theory of Information*[Shannon and

Weaver, 2015] and elucidates how Flusser counters Shannon: While Shannon's approach is purely mathematical and describes the processes of transporting information from a sender to a receiver and analyzing the *quantity* of information, Flusser argues that the *quality* of information is equally important if information is to be contextualized in a cultural realm[van der Meulen, 2010, p. 191]. The dichotomy Flusser uses to define the informational quality of a photograph is *redundant* vs. *non-redundant*:

Such images are 'redundant': they carry no new information and are superfluous. In the following, no account will be taken of redundant photographs since the phrase 'taking photographs' will be limited to the production of informative images. As a result, it is true, the taking snapshots will largely fall outside the scope of this analysis.

(Vilém Flusser, Towards a Philosophy of Photography[Flusser, 2000, p. 26])

This definition rings familiar with Barthes' description of *studium* and *punctum* - like Barthes, Flusser excludes a large number of photographs from the scope of his analysis based on the quality of their information, as Barthes does with those photos that do not possess the inherent quality of a *punctum* (or not even the more common *studium*). While van der Meulen admits that it would be tempting to see Flusser's and Barthes' notions as nothing more than just a more precise and subjective (in Barthes case) or more general and broad (in Flusser's case) way of describing the same aspects of photography, he still comes to the conclusion that they are different in their approach, with Barthes deciphering a single image's meaning and Flusser analyzing technical images and their impact on society in general[van der Meulen, 2010, p. 193].

The role of the photographer

Given his examination of the photographic camera as an *apparatus*, Flusser defines the photographer's role neither as someone using a tool (as a pre-historic image creator such as a painter would have used brush and colors) nor as the operator of machinery, but likens him to a chess player:

*Just as they play with chess-pieces, photographers play with the camera. The camera is not a tool but a plaything, and a photographer is not a worker, but a player: Not **Homo Faber** but **Homo Ludens**. Yet photographers do not play with their plaything but against it. They creep into the camera in order to bring to light the tricks concealed within. Unlike manual workers surrounded by their tools and industrial workers standing at their machines, photographers are inside their apparatus and bound up with it. [...] It is therefore appropriate to call photographers functionaries.*

(Vilém Flusser, Towards a Philosophy of Photography[Flusser, 2000, p. 27])

What Flusser describes here is a form of symbiosis between photographer and camera - the photographer controls the camera by manipulating its settings in order to produce

an image, but the camera controls the photographer through the limitations and design of its programming as well. While the same might be said about a painter's brush and paint, the limitations imposed on the painter are less designed by humans than laws of nature or physics itself (such as the viscosity of the paint or the roughness of the canvas); a camera's program, on the other hand, is a human creation and fits into the larger societal context of its designers, which Flusser describes as *programs* themselves [Flusser, 2000, p. 29].

It is worth mentioning at this point that Flusser specifically distinguishes between the *amateur* and *true photographer*. Starting off his chapter on *The reception of photographs*, he points out that creating a photograph does not necessarily mean being able to 'decode' it (by which Flusser refers to a critical analysis) - he describes amateurs as 'photographical illiterates' and urges us to consider this when evaluating the democratization of photography. The difference between the *amateur* and the *true photographer* then lies, according to Flusser, in '[...] the pleasure they take in the structural complexity of their plaything.' [Flusser, 2000, p. 58] Thus, 'people taking snaps' are not interested in the complexity of their apparatus, but long for simpler and more straightforward cameras with a greater degree of automation. The photographs they produce, it follows, are *redundant*, and do not represent any kind of novelty. Herein, argues Flusser, lies the danger of our 'photographic universe': The majority of *amateur* photographers have grown numb to technical images, and see them as simple and automated representations of reality ('snaps'), leaving them vulnerable to manipulation by those who are photographic literates and are able to create non-redundant photographs as well as decode them (although Flusser does not mention it specifically, advertising does come to mind).

Summary

Flusser's tractatus on photography is - contrary to Barthes' *Camera Lucida* - emanating an air of urgency and need for change. The dangers of a 'flood of images' that can not be properly read by a large portion of humanity (in the spirit of critical theory) are immanent and real in his work, and the style of his writing urges us to consider his arguments for humanity's sake. Van der Meulen's suggestion to read Flusser in the context of his time (the Cold War) is a reasonable one - but while the future Flusser describes might seem hyperbolic in its dystopy, the core aspects of his *Philosophy of Photography* have held true: The amount of images we are exposed to has increased exponentially, cameras have become ubiquitous, and their widespread distribution has opened up new socio-economic issues like privacy, safety, surveillance and mass manipulation. Furthermore, his description of photographic practices have not lost their accuracy over the last 35 years, and still hold value in the context of this thesis.

2.4 deviantART

To investigate personal photography with a focus on self-expression, finding potential candidates for the interviews presented the question ‘*Where do personal photographers with an interest in art meet?*’ Given the study’s interest in digital photography, it seemed reasonable to assume that websites that facilitate photo-sharing, commenting and other social and community features would be a good starting point. Furthermore, and contrary to real-life meeting venues such as clubs, educational programs or conventions, web-based communities offer easier options to contact large numbers of people as potential interviewees, simplifying the search for candidates. Given the authors knowledge about and experience with the online art community *deviantART*¹⁶, the website was chosen as the starting point for the search. Subsequently, all the interviewees were first contacted on and are currently members of the deviantART website. The following section gives a short introduction to deviantART and its features based mainly on Perkel’s *Making Art, Creating Infrastructure: deviantART and the Production of the Web*[Perkel, 2011]. It must be noted that a complete analysis of different aspects of the site would easily exceed the scope of this thesis, thus the following introduction should only serve as an orientation to the reader.

Definition, Features & Goals

The *deviantART* website defines itself and its goals in its FAQ¹⁷ section:

deviantART is an online art community for artists and art lovers to interact in a variety of ways, ranging from the submission of art to conversations on a number of topics. In its purest form, deviantART is a means for expressing yourself in a variety of ways.

(deviantART F.A.Q.[DeviantArt, Inc., 2015c])

Expanding beyond this self-assessment, *deviantART* can be categorized as a *social network site* as described by Boyd et al.:

[...] web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system.

(Boyd et al.[Boyd and Ellison, 2007, 211])

Though deviantART fulfills each of the three prerequisites suggested by Boyd et al., its characteristics extend beyond this limited scope and entering what Salah (drawing on [Adar et al., 2004]) calls the ‘*blog-sphere*’: by showcasing user-generated content in a user-centric way, deviantART spans both social networking and blogging services.

¹⁶<http://www.deviantART.com>

¹⁷‘Frequently Asked Questions’

According to Salah, this makes deviantART a ‘[...] *unique enterprise, challenging and questioning the art market on many relevant points.*’[Salah, 2010, p. 1]

As Perkel notes, deviantART avoids defining what is and isn’t art (although its members engage in discussing who is or isn’t an artist frequently), but do subsume *art* under *self-expression*[Perkel, 2011, p.30] On a more technical note, deviantART is an online platform for sharing a variety of art forms, including but not limited to *Photography, Digital Art, Traditional Art* (Drawings, Paintings, etc.), *Artisan Crafts, Literature, Design and Interfaces* and *Customization*. These art forms are represented on the page through a tree-like category system with the aforementioned art forms split up into numerous sub- and sub-sub-categories, allowing members to submit their uploaded art pieces (referred to by deviantART as *Deviations*) to a (sub-)category of their choosing[DeviantArt, Inc., 2015a].

Profiles, Submissions, Galleries

To showcase their submissions, members utilize their profile page to display select art pieces they submitted, publish journal entries, disclose additional information about themselves and interact with other users through commenting. Additionally, each submitted art piece can be accessed on its own page, displaying (besides the uploaded image or video representing the submission) additional information such as a description of the piece, meta-information about the submission, as well as other members’ textual interactions (i.e. comments and their responses) on the submission. Each member’s submissions are also collected in their *gallery*, which allows sorting the submissions in folders and provides a search function.

The profile page is the core feature representing a member. As such, it can be customized in regards to layout as well as elements shown, including featuring single *deviations*, slide shows showcasing the contents of folders in a user’s gallery, journal entries, personal information about the member (including a profile picture and an avatar representing the members on the website) and a number of other widgets like polls the user started or a list of groups the user belongs to. Figure 2.7 shows a typical profile page, including featured art work, group memberships, a self-description and a journal entry.

A single submission or *deviation* page showcases an art piece by a member. It consists of the art piece itself (either an image, a text or a video) and its description text followed by a list of comments and responses in the left column, and a toolbar on the right, featuring other related artwork (by the same member and similar art pieces on deviantART), image meta-information such as EXIF data¹⁹ and metrics about the submission (e.g. the number of page views, favorites or comments). Furthermore, should the deviantART member allow it, the art piece can be downloaded and shared on other social media sites.

¹⁸Reference: <http://yugen-art.deviantART.com>, accessed on 11.01.2015, 19:46

¹⁹Exchangeable Image File Format, cf. http://www.jeita.or.jp/japanese/standard/book/CP-3451C_E/#page=1

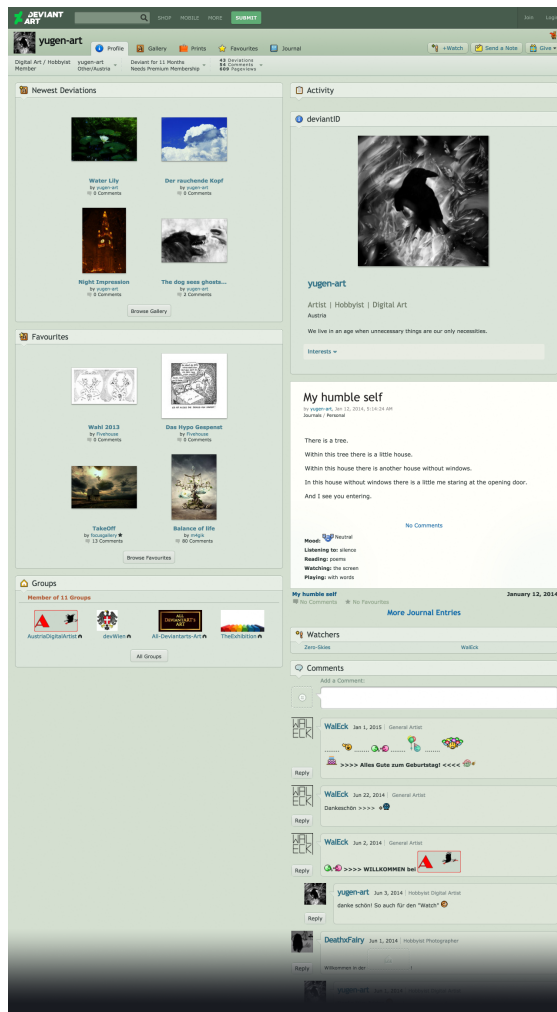


Figure 2.7: The profile page of a deviantART member ¹⁸

Member Interactions

Receiving feedback on submissions is the central element of interaction and one of the features deviantART advertised most to its members [Perkel, 2011, p. 33]. Predating Facebook’s ‘Like’-Button feature by almost 10 years [Roosendaal, 2010], members can use the *favorite* button to add art pieces to their own ‘favorites’ collection and show their appreciation to the artist. This action serves a dual purpose: On the one hand, the favorited art piece will be added to the member’s personal collection, either to the default *Favorites* folder or a custom folder of their choosing. This creates a categorization of *favorited* art pieces based on the member’s preferences (as opposed to deviantART categories). On the other hand, the page counts how many times a submission has been

²⁰Reference: <http://hayley-blue.deviantART.com/art/--418270411>, accessed on 11.01.2015, 19:55

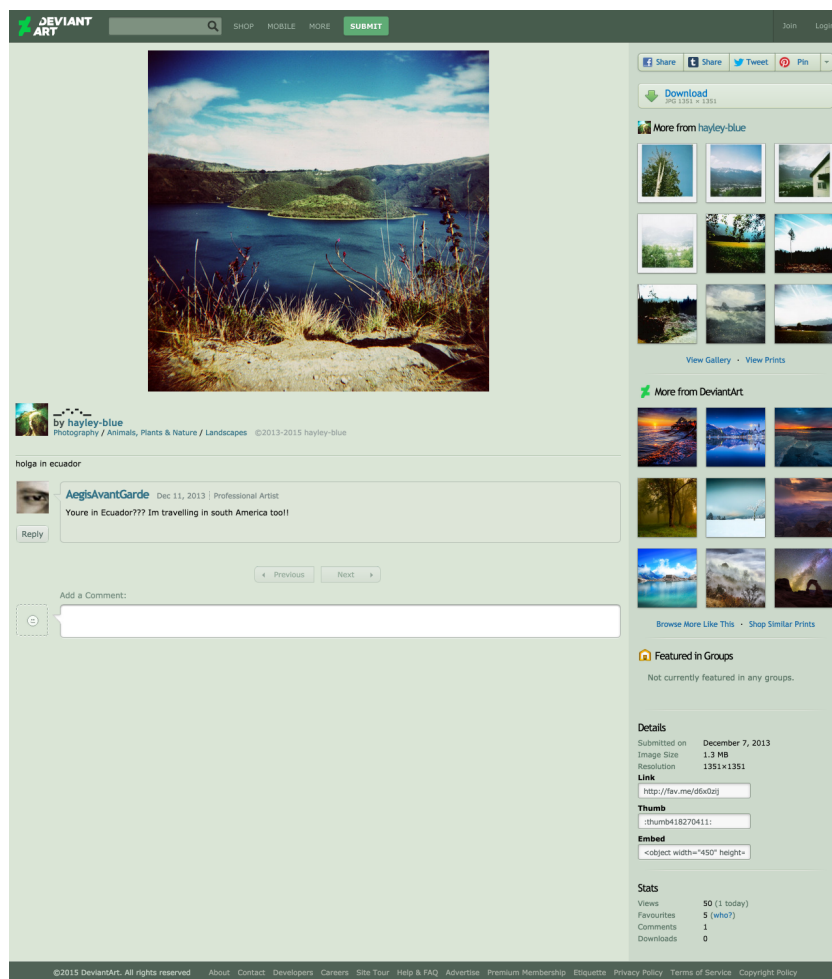


Figure 2.8: A single *deviation* page ²⁰

selected as a favorite, which influences its *popularity rating* on the main deviantART gallery pages[Perkel, 2011, 107].

A related feature, named *Watching*, exists to follow another member and receive updates when they post a new submission, journal entry or other form of content. Although similar in nature, Perkel points out that the *Watching* feature was not entirely the same as the *friending* feature on other social websites, since a *watched* member can be additionally defined as a friend, although it is unclear what adding a friend entails besides a change in the way these members' interactions with the page are displayed to their friends[Perkel, 2011, p. 34].

The option of giving textual feedback via comments on another user's profile, their *deviations* or their journal posts takes up a central role in interacting with the deviantART website. Each page allowing comments displays them in a threaded, chrono-

logically sorted view, and displays convenient text-boxes encouraging members to leave feedback. Besides the comment feature for submissions, a more detailed feedback option called ‘critique’ is available. The deviantART F.A.Q. pages define *critiques* as follows:

The Critique system on deviantART is designed to help artists get in-depth, critical feedback and commentary on their work. Valued feedback through Critique promotes creative growth as an artist and draws special attention to your work. Critiques are also a way for committed art enthusiasts, connoisseurs and fans to publish real criticism, gain recognition as a Critic and introduce new and emerging art to the community.

(deviantART F.A.Q.[DeviantArt, Inc., 2015c])

As Perkel points out, the *Critique* feature was launched in 2009, aiming to address the ‘*lack of critique and good feedback on deviantART*’[Perkel, 2011, p. 154]. Premium Members are presented with the option to *request [a] critique* when submitting new art pieces; any member can then write such a critique, submitting to a 100-word minimum length requirement and rating the art piece in the four categories *vision*, *originality*, *technique* and *impact*. After submitting the critique, artists have the option to indicate whether they thought a particular critique was *fair* or *unfair*.

Similar to other social media websites, a private messaging service called *Notes* allows sending longer, direct messages to other members. It should be noted that there are no restrictions as to who a member can send a message to - no relationship (*friend*, *watcher*) is required. While it isn’t possible to block messages from specific other members, the site itself employs a variety of algorithms countering spam (i.e. similar messages to multiple users in a short amount of time)[Perkel, 2011, p. 110].

Premium Accounts

Although the site itself is freely accessible, both as a guest (i.e. a not signed-up visitor) and a member, deviantART offers so-called *Premium* accounts for a fee of 25.95 US Dollars (roughly 25.60 EUR)[DeviantArt, Inc., 2015a]. Among other things, premium members do not see any advertisements and gain additional user interface improvements (e.g. multiple concurrent submissions, larger amount of *Deviations* in gallery views). Furthermore, premium members get the option to customize their profile page further, compared to non-paying members. As mentioned above, it is also necessary to be a premium member to request *Critiques* to their submissions.

Prints and Merchandise

Besides fees for premium accounts and advertisement space, deviantART, Inc. offers professional printing services of art pieces, as well as a selection of deviantART themed merchandise in it’s online store *deviantART Marketplace* as an additional source of revenue. The print system allows any member to sell prints of their submissions in the deviantART store and offers a range of customizing options (including size, paper type

or frame). deviantART, Inc. keeps a percentage²¹ of the sale, and ‘pays’ out the rest of any sale to the member’s earnings account. After a member has accumulated a certain amount of earnings, they can either opt to be paid out or exchange the amount for the site’s own virtual currency, *Points*[DeviantArt, Inc., 2015b]. Furthermore, any product or service deviantART Inc. sells in its online store can be purchased either with real currency or an equivalent amount of *Points*, including premium accounts, prints and merchandise.

Impact and Context

deviantART claims to be ‘*the world’s largest online art community*’[DeviantArt, Inc., 2015a]. According to Perkel, there are multiple statistics to bolster that claim, detailing the number of members registered, unique visitors per day or the total number of submissions, among others[Perkel, 2011, p. 30]. While sheer size might give insight into the popularity of the site and possibly the economic viability of deviantART, Inc. as a business venture, it does little to shed light on the impact the website has had on it’s users in particular and the art community in general. Thus, the following sections aims to touch upon a few areas that deviantART has affected and situate deviantART in a greater context.

Drawing on Perkel and Salah et al. [Perkel, 2011, Salah, 2010], key areas of how deviantART is impacting it’s members lives include *recognition, sharing, improvement and learning* ([Perkel, 2011, chapters 5,6 and 7]), and, on a larger scale, the *identity* of deviantART’s members as artists[Salah, 2010, p. 17].

One of the benefits of the so-called Web 2.0 technologies that deviantART draws upon is that they have ‘*lowered barriers to participation in the production and initial circulation of content*’ on the one hand and ‘*lowered the barrier to participation in content’s continued circulation*’ on the other hand[Perkel, 2011, p. 104]. Both aspects can be observed on deviantART: Firstly, by providing an (essentially) free service to anybody with access to the Internet to publish artistic content, the efforts involved in reaching an audience with one’s creative output are significantly lower than, for instance, presenting one’s photographic art pieces at a gallery, and secondly, by providing an easy, simple and effortless way of sharing, discussing and commenting, the *continued circulation* of those artworks is supported. Furthermore, the dichotomy between content creators and content distributors is being weakened on deviantART, since members are taking on both roles simultaneously. As detailed before, deviantART provides its members with an opportunity for *recognition* for their work through publishing the page view statistics, the ‘favorites’ system, as well as comments and critiques on the artwork received. It is worth noting that, by defining the boundaries of what options there are for ‘being recognized’, deviantART is shaping it’s users understanding of recognition as such and

²¹As Perkel states, this percentage was 50% in 2011[Perkel, 2011, p.41]

their interactions with the community on the page [Perkel, 2011, p. 103ff].

Another important aspect of deviantART is the opportunity to learn and improve as an artist. Through feedback and critique, members of deviantART gain access to their peer's opinions of their works, which facilitates improvements. Secondly, a specific type of content geared towards self-improvement can be found on deviantART: *Tutorials* on a wide range of techniques, from tips and tricks for drawing to complex post-processing steps for photographs in Adobe Photoshop, are popular resources for improvement as well [Perkel, 2011, 157]. While *tutorials* are not a content type found only on deviantART - many other websites will provide tutorials on art-related topics - they combine two separate characteristics that makes them unique: they are both learning material for one and the art piece of another.

The concept of an artist's *identity* is a complex topic, as Salah et al. point out in their analysis of deviantART as '*the next art venue*'. Drawing on the history of 1980's identity politics, they sum up the difference between the 'real world' and deviantART:

Today, the identity of an artist is bestowed by the education system, or in rare cases, by certain institutions of the art world.

DA deviates in this regard from the norm, as in the context of DA, the line that separates the amateur and the professional is irrelevant.

(Salah et al. [Salah, 2010, p. 17])

They argue that deviantART's impact on their member's identities as artists is profound, and influenced by a member's interest in recognition and popularity: while deviantART offers the option to define one's identity through artistic submissions and the profile page and even allows for multiple identities (in the form of multiple accounts), it pushes people to conform to predefined examples of success on the page in order to attain similar recognition [Salah, 2010, p. 18].

Methodology

'I am a visual man. I watch, watch, watch. I understand things through my eyes.'

Henri Cartier-Bresson [Cartier-Bresson, 1963, p. 42]

3.1 General Approach

The study relies primarily on *qualitative interviews* as a strategy of inquiry based in *qualitative research*. *Qualitative research* is described by Creswell as an approach “in which the inquirer often makes knowledge claims based primarily on constructivist perspectives” - a perspective acknowledging that individual experiences are both socially and historically constructed, and thus specific to each individual [Creswell, 2003, p. 21]. Furthermore, the researchers subjectivity on photography in general and personal photography in particular must not be ignored. Considering this, Hohl states on the difference between a quantitative and a qualitative approach:

The crucial difference between these two methods is seen in the fact that in the standardized research process we try to eliminate the subjectivity of the researcher both in data gathering and data interpreting whereas in qualitative research this subjectivity is considered indispensable and therefore integrated into the research process in a systematic and controlled way.

(Hohl [Hohl, 2000, p. 1])

Following this, the intent of this research on the experiences of individuals with personal photography will be “developing a theory or pattern” [Creswell, 2003, ibd] regarding the use of personal photography as a means for self-expression.

Since there is little research on the topic ([Van House, 2013, p. 131]), an approach allowing “open-ended, emerging data”[Creswell, 2003, ibd] to be collected was chosen.

Role of the Researcher

In qualitative research, it is impossible to separate the researcher’s subjective views and personal history from the subject. To summarize from Denzin and Lincoln’s *Introduction: Disciplining the Practice of Qualitative Research* (Denzin/Lincoln [Denzin and Lincoln, 2005, p. 5]), the researcher can be seen as a *bricoleur*, a quilt-maker, that gathers aspects of narratives and arranges them to extract meaning from those narratives. This process, described metaphorically as process of *crystallization*, puts the researcher in the delicate position to navigate between their own “[...] *personal history, biography, gender, social class, race, and ethnicity and those of the people in the setting*”. Following this, Denzin and Lincoln stress the importance to recognize the “*dialectical and hermeneutic nature of interdisciplinary inquiry*” - arguing, in essence, that the choice of methods for both gathering and analyzing data is in itself a dialectic process between the researchers own, situated self as well as the surrounding scientific environment. (ibd. [Denzin and Lincoln, 2005, p. 5]) Returning to the metaphor of the quilt-maker, they sum up the result of a qualitative study:

The product of the interpretive bricoleur’s labor is a complex, quilt-like bricolage, a reflexive collage or montage; a set of fluid, interconnected images and representations. This interpretive structure is like a quilt, a performance text, or a sequence of representations connecting the parts to the whole.

(ibd. [Denzin and Lincoln, 2005, p. 6])

To produce reliable and scientifically sound results, it becomes imperative to document the decisions made by the researcher both in design and execution of the study, to put the researchers influence on the outcome into perspective. Consequentially, the following sections aim to describe the process of data gathering as well as the methods of analysis employed in this study in detail.

3.2 Qualitative Interviews

A qualitative interview is characterized by Kvale as an interview with the purpose of “obtaining qualitative descriptions of the life world of the subject with respect to interpretation of their meaning.” [Kvale and Brinkmann, 2009, p.124]. Kvale’s use of the word *meaning* hints at the subjective nature of the outcome of such an interview - *meaning* is a social construct created between the interviewer and the interviewee, subject to negotiation and influenced by both the interviewers and the interviewee’s “historical and social perspective” [Creswell, 2003, p. 10]. As such, any qualitative method of inquiry (such as an interview), does not try to eliminate the interviewer’s subjectivity, but acknowledges it as an integral part of the subject’s investigation. As Denzin and Lincoln state,

Qualitative Research is a situated activity that locates the observer in the world. It consists of a set of interpretative, material practices that make the world visible. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them.

(Denzin/Lincoln [Denzin and Lincoln, 2005, p. 3])

A qualitative interview strives to create an open space for the interviewee to explore the topics according to their own interpretation of the question. To allow this, the interview is only roughly scripted, defining a set of *key questions* and possible avenues of inquiry as follow-ups as a guide for the interviewer. While the key questions do not change from interview to interview, the follow-ups and subtopics explored depend on the interviewee as well as on the interviewer and are subject to a certain amount of evolution through the interview process, as new areas of interest regarding personal photography might emerge.

Lead Questions & Interview Guideline

For this study, the main three areas of interest regarding personal photography and art were defined as:

1. Personal History
2. Practices
3. Technologies

These are not to be seen as discrete topics, but rather an overall classification of the overlapping areas the interviews focus on.

Personal History

The first area of inquiry, *Personal History*, aims to shed light on the interviewee's development and history with respect to personal photography. The goal for this part is to let the interviewee create a self-narrative of their personal history with a focus on influences, key events and personal decisions that lead them to their present involvement with photography. Following Gergen and Gergen, a self-narrative is a person's "individual's account of the relationship among self-relevant events across time." [Gergen and Gergen, 1997, p. 255] ¹ Furthermore, this personal narrative will serve as a starting point for a

¹The term *self-relevant* is key: While the interviewer certainly has some preconceived notions about the relevance of events in a person's history, the goal is to elicit the interviewees point of view, attributing importance based on their own judgement.

more in-depth inquiry into the topic: If, for instance, the interviewee mentions having been gifted a piece of photography equipment like a camera as a crucial event in their personal history, this would present a starting point to explore the subjects use of said equipment in the time following receiving the gift, as well as the positive and negative aspects of the technology the piece of equipment represents for the interviewee.

A different desirable aspect of creating such a narrative is the ability to situate the subjects involvement with photography in a context of the history of technology - a person coming into contact with photography in an era before affordable digital photography will have a different relationship with photography than a person starting their involvement with photography through smartphones or other digital photography artefacts. This will present a crucial resource for the analysis of the interviews, as it will help gain an idea about the influence of technological developments in photography on an individual's interest in artistic expression.

The main questions for this section include:

- What is your personal history with photography?
- When did you first come into contact with photography?
- Who were the people influential in your development as a photographer?
- What were the key experiences in your development as a photographer?
- Which aspects of photography are most important to you?
- What types of photos do you concentrate on, i.e. people and portraits, landscapes and nature, sports, animals?
- What determines a photograph's quality?
- What constitutes 'a good picture' in your opinion?
- Do you consider the photographs you take as art, and if so, why?

Practices

The second area of interest in the interviews is *Practices*, involving questions like “*How do you take photographs?*”, “*What are typical situations in which you would be taking photographs?*” and “*What happens to the photos after you take them?*”. The goal of this line of questions is to gain a broad understanding of the regular practices regarding photography of the interviewees, including but not limited to preparations, the act of taking the photos themselves, post-processing, as well as organizing, storing, sharing and publication. As with the self-narratives before, the practices collected will be starting points for more in-depth questions, in this case focusing on the practices' connection to self-expression. For instance, an interviewee engaging in some kind of practice of

sharing their photographs on social media sites like *Flickr*² or *deviantART*³ would lead to questions about the importance of feedback on his work.

An aspect of photography practice worth mentioning is education. Since the skills and techniques involved in photography can vary depending on the level of sophistication of the photographic process, it can be assumed that photographers consult various sources to educate themselves.

The main questions for this section include:

- How and when do you take photographs?
- What are typical situations in which you would be taking photographs?
- What aspects of photography do you prioritize, i.e. composition, location, equipment, spontaneity or others?
- How did you learn the skills you use for photography?
- Do you save and/or organize your photographs, and if so, in which way?
- Do you share your photographs with friends and family, and if so, in which way?
- Do you publish your photographs online and if so, where?
- How important is sharing your photographs to you?
- Have you ever considered professional photography as an occupation?

Technologies

The third focal point of the interview are the technologies involved in the process of personal photography. The technological artifacts we use influence both the understanding of the task we face and the way we choose to attempt its completion - as Wood[Zhang and Norman, 2010] sums up Zhang and Norman: ‘How a problem is represented influences the cognitive work needed to solve that problem, either improving or degrading performance - the representation effect’ ([Woods, 1998, p. 1]). Photographic technology is no exception here - both analog and digital cameras present a certain way of operating them, giving the photographer a very specific set of tools and settings to influence the final picture. This specific set represents the boundaries within which photographers operate to create a photograph, and as such, they shape the way photographers approach their task of taking a picture. As Bourdieu’s collaborator on ‘Photography - A middle-brow Art’, Chamboredon, states in his contribution to the book:

In fact, the state of photographic technology obliges photographers to carry out specific operations which pre-exist their intentions, and which can therefore

²<http://flickr.com>

³<http://www.deviantART.com>

not be conceived as gestures freely brought about by their creative intentions and modeled on those intentions.

(Chamboredon/Bourdieu [Bourdieu and Whiteside, 1990])

Given this, the *Technology* aspect of the interview aims to investigate which technologies are being used and for what purpose, and thus shed light on how the technology in use shapes the process of taking photographs themselves.

Besides the hardware aspect, which focuses physical artifacts like camera equipment, lenses, film, smart-phones and tablets, the software aspect remains another interesting part of personal photography to be investigated. It includes questions about the use of post-processing software, cataloging and organizing software as well as backup and storage solutions, but also extends to camera applications for smartphones and sharing technologies and applications, like *Instagram*⁴ or *deviantART*. Furthermore, online communities and discussion boards (*'forums'*) that focus on knowledge exchange and education for photographers are investigated in this part.

The main questions for this section include:

- What camera equipment do you use and why did you choose it?
- Do you use your smartphone camera?
- Do you use special smartphone apps?
- What accessories do you use?
- Do you post-process your pictures and if so, how?
- If you share your photos, what technologies do you use?
- Do you use cataloging software?
- Do you frequent online forums, and if so, to what purpose?

3.3 Analysis

This section outlines the theoretical approaches and their practical implementation to analyze the data gathered in the qualitative interviews. Given the amount of source data gathered in the interviews as well as the complexity of the topic, an approach based on *inductive categorization* on the one hand and sparse analysis of *detailed narratives* on the other hand was chosen.

⁴<http://instagram.com>

Qualitative Content Analysis

The approach taken for the analysis of the interview data is based on Philip Mayring's handbook "*Qualitative Content Analysis: Basics and Techniques*"⁵[Mayring, 2008]. Mayring differentiates between three separate approaches or techniques for qualitative content analysis: *Summarization and Inductive Classification*⁶, *Explication*⁷ and *Structuring*⁸. Each of these approaches has different goals in respect to the material being analyzed: *Summarization* aims to reduce the material without losing its original content and meaning through abstraction, *Explication* aims to annotate parts of texts with additional material to clarify them, and *Structuring* aims to filter specific aspects from the material based on pre-defined categories. [Mayring, 2008, p. 65] Of these three, *Summarization and Inductive Classification* was chosen, given that the material to be analyzed is quite extensive and that the exploratory character does not allow the creation of pre-defined categories for *Structuring*.

The following section gives a short introduction to the approach proposed by Mayring and details the specific implementation chosen for this study.

Summarization and Inductive Classification

Mayring's technique for summarizing large corpora of material is a series of 7 steps, of which step 2-5 can be combined for efficiency. Each step transforms the base material through a series of "*macro-operations of reduction*"⁹[Mayring, 2008, p. 67], such as *Omission*¹⁰, *Generalization* or *Selection*. The steps are

1. Definition of analytic units or blocks
2. Paraphrasing, Generalizing and Reduction through Omission and Selection
3. Collection of the remaining statements as categories
4. Re-Evaluation of category system with original material

Furthermore, the *level of abstraction* is an indicator defining how severely the material should be reduced. After the each iteration, the result is evaluated in respect to this *abstraction level*, starting a new iteration over the now reduced material to approximate the target abstraction level more closely. In the case of this study, this level itself will be determined iteratively as well, starting with a modest amount of target reduction and

⁵Translated from German by the author, original title: "Qualitative Inhaltsanalyse: Grundlagen und Techniken"

⁶Translated from German by the author, original: "Zusammenfassung und Induktive Kategorienbildung"

⁷Translated from German by the author, original: "Explication"

⁸Translated from German by the author, original: "Strukturierung"

⁹Translated from German by the author, original: "Makrooperationen der Reduktion"

¹⁰Originally: "Auslassen"

re-evaluating if a suitably reasonable level of abstraction has been reached after each iteration over the aforementioned 4 steps.

Analytic Units

The first step, defining the *analytic units*¹¹, aims at increasing the precision of the content analysis, by defining three *Units of Analysis*[Mayring, 2008, p. 59]: The *Unit of Coding*¹² describes the smallest textual component that is to be evaluated, the *Unit of Context*¹³ defines the largest textual component that can fall under a single category, and the *Unit of Evaluation*¹⁴ defines the order, in which textual components should be evaluated. For this study, these units have been determined as such:

Unit of Coding

No textual component smaller than **full sentences**, including those broken up by reflective pauses in the interviewee's speech and grammatically incorrect (due to the imperfections inherent in spoken word conversation) shall be evaluated.

Unit of Context

No textual component larger than a **series of sentences answering one question** by the interviewer, as well as possible follow-up answers, shall be attributed to a single category.

Unit of Evaluation

The order of evaluation will follow the **chronological order** in which the interviews were taken.

Paraphrasing, Generalizing and Reduction

The second step, *Paraphrasing, Generalizing and Reduction* consists of a series of iterations over the textual material. In the first iteration, textually relevant components will be paraphrased to a shortened statement to clear up spoken word artifacts such as ellipses or reflective pauses and hyphens. The second iteration, *Generalization*, iterates the paraphrased statements and generalizes them, should they not reach the target *abstraction level*. *Reduction*, the third iteration, removes paraphrases with similar or equal content, and possibly rephrases them to incorporate the combined meanings of the similar paraphrases.

Collection of Categories

Based on the last iteration over the now reduced and combined paraphrases, the third step defines a system of categories that collects the paraphrases based on their content.

¹¹Originally: "Analyseeinheiten"

¹²Originally: "Kodiereinheit"

¹³Originally: "Kontexteinheit"

¹⁴Originally: "Auswertungseinheit"

This is in itself an iterative process: a paraphrases will either be attributed to an already defined category, or, if it can not be attributed directly, a new category will be defined for it. Thus, a grouping of similar (paraphrased) statements is achieved, summing up different standpoints on topical elements, and providing an overview over differences and similarities in the textual corpus. The result of this step will then be discussed in the *Findings* section of this thesis.

Re-Evaluation

Given the fact that *Paraphrasing*, *Generalizing* and *Reduction*, as well as the attribution to categories reduces the density of information, an evaluative step is necessary to confirm the gathered information has not departed too far from the source material. To ensure this, each paraphrase in the category system is to be compared to the source material, confirming that there are no contradictions between the generalized, reduced and categorized result and the original text. Ideally, this shows that every expression can be attributed to one of the chosen categories - should this not be the case, the previous steps are revisited to either reformulate the reduction and generalization, or to re-attribute the paraphrase to a different (potentially new) category.

Discourse Analysis

In addition to the approach proposed by Mayring, further analysis on the transcribed interviews will include an approach situated in discourse analysis. As *Schiffrin et al.*[Schiffrin et al., 2008] state, both *discourse* and *discourse analysis* are by no means clearly defined terms - their definitions highly vary between scientific fields. Summing up a survey of 10 definitions by *Jaworski and Coupland*[Jaworski and Coupland, 1999], *Schiffrin et al.* distill three distinct categories of definitions:

“They all [...] fall into the three main categories noted above: (1) anything beyond the sentence, (2) language use, and (3) a broader range of social practice that includes nonlinguistic and non-specific instances of language.”
([Schiffrin et al., 2008, p. 23])

While the first two categories, “*anything beyond the sentence*” and “*language use*”, focus on single instances of text and the relations between entities (sentences, paragraphs, themes, etc.), the third definition refers to the sum of all “*social practices and ideological assumptions*”, forming a larger concept. Although an analysis of discourse based on the first or third definition might prove fruitful in the case of this thesis’s transcribed interviews, its execution would go well beyond the scope of this study. Thus, an analytic method attributed to the second definition, “*language use*”, will be employed: Narrative analysis based on *Labov and Waletzky’s* “*Narrative analysis: oral versions of personal experience*”[Labov and Waletzky, 1966].

Narrative Analysis

The following section aims to briefly sum up the formal approach of narrative analysis as presented by *Labov and Waletzky* and is based on their paper “*Narrative analysis: oral versions of personal experience*”([Labov and Waletzky, 1966]), as well as on the excellent summary of narrative clauses by Barbara Johnstone in the *Handbook of Discourse Analysis*[Schiffrin et al., 2008, p. 635ff].

The definition of *narrative* is dual: either *minimal* or *fully formed*. Labov and Waletzky begin by defining a *minimal* narrative simply as:

“Any sequence of clauses which contains at least one temporal juncture [...]”
([Labov and Waletzky, 1966, p. 28])

In this definition, a temporal juncture represents a clause that defines the order in which things happened in a story. For example, if we consider the following three narrative clauses:

- I said ‘cheese’.
- They smiled and I took the picture,
- and then I put the camera down.

This narrative contains a temporal juncture between *They smiled and I took the picture* and *and then I put the camera down.*, since reversing the order of these two clauses would change the temporal sequence of the story. Following this definition, a *minimal* narrative would be any part of any story that follows an invariant temporal sequence, whereas a *fully formed* narrative would contain structures like orientation and evaluation as well, thus referring to the telling of a sequence of events in the past for a reason, namely keeping the audience interested. As Johnstone points out, some confusion resulted of the two competing definitions, the first being a part of the second. To clarify, other terms like “story” have been used to describe the second definition, “everyday parlance: narrative with a point”[Schiffrin et al., 2008, p. 639]. Since this thesis does not delve into narrative analysis on a level of narrative clauses, the term *narrative* shall remain in use to describe a *fully formed* narrative nonetheless.

Analyzing the “invariable structure”[Schiffrin et al., 2008, p. 637ff] of 14 stories told to them, Labov and Waletzky distilled *narrative functions*, comprised of sets of clauses, that serve a certain purpose in a story. These functions are, in a rough order of their common occurrence:

1. abstract
2. orientation
3. complicating action
4. evaluation
5. result or resolution
6. coda

To illustrate the functions, a short example of a *fully formed narrative*¹⁵ can be considered:

The *abstract* provides a short introduction or summary to the narrative, creating a starting point for a story and declare the speaker’s intentions of telling it. It is usually concise and consists only of a few clauses, for example: “Once, I went on a photo walk and almost dropped my camera off a mountain”.

The narrative function *orientation* sets the scene, introducing, for instance, when and where the story happened, and who stars in it, for instance: “About two years ago, my dad and I went on a hike to the mountains, and I brought my camera, because it was a beautiful day.”

The elements comprising the *complicating action* function as a means to create suspense and progress the story, leading up to the *result or resolution*, which “releases the tension and tells what finally happened”[Schiffrin et al., 2008, p. 638]. These elements are meant to keep the audience interested and listening until the end: “So we were walking up the mountain, when I spot an ibex just beyond a ridge, looking right at me. Of course I immediately go for my camera and lean over the edge to snap a picture. And then, just as I’m ready to click the shutter, a bunch of jackdaws took flight just in front of my lens and I let go of my camera - but luckily the strap got caught on my wrist and it didn’t fall!”.

Besides these basic elements of a narrative, elements of *evaluation* can be interjected, often right before the resolution([Schiffrin et al., 2008, p. 638]). These evaluative clauses disclose further details of the surroundings (“[...] I let go of the camera - *they caught me totally by surprise!*”), opinions of the speaker concerning other characters (“My dad - *of course!* - couldn’t stop laughing!”), and suggest why the story is interesting and worth listening too.

Finally, a *coda* may be used to signify the end of that story, sometimes summing it up or providing a connection to the present day, for instance: “And that’s that - to this day I jump a little when I see a jackdaw!”.

¹⁵The example narrative was created by the author.

Narrative Analysis: Structure

The narrative analysis of the transcribed interviews will be conducted based on the following four steps:

1. Selection of Narratives
2. Functional Analysis of selected Narratives
3. Comparison of orientational and evaluational sets of clauses

The following paragraphs aim to outline the strategies employed in each step as well as their reasoning.

Selection of Narratives

The first step of analysis will be the selection of narratives or sub-narratives from the interviews. Since the interviews are conducted in a manner situated between what Mayring[Mayring, 2002, pp. 67-76] describes as *problem-centered interview* and the *narrative interview* as mentioned by Witzel[Witzel, 1985], the data produced by said interviews are not comprised of a single narrative per interview, but rather a complex conglomerate of narratives and sub- or micro-narratives as well as non-narrative answers to open-ended and interpretative questions. A full analysis of all narratives falling under either the stricter definition of narrative as presented by Labov and Waletzky[Labov and Waletzky, 1966] or the broader definition of ‘story’ emerging in later research would prove unreasonable due to the sheer number of narratives that could be extracted from the transcripts. Thus, a selection of sub- and micro-narratives based on their *relevance to the topic* as well as on their *complexity* needs to be the first step. To clarify the two criteria: *Relevance to the topic* refers to how closely linked the story is to the question that prompted it, and *complexity* refers to how fully-formed the narrative is, which becomes relevant in the fourth analytic step that compares the functional elements *orientation* and *evaluation*.

Besides these two criteria, it is to be expected that the majority of selected narratives will either be part of or be comprised in their entirety of the answer to the first lead question - the interviewee’s personal history with photography.

Following the process of selection, the narratives will be given a unique identification based on the interviewee and the question or topic it relates to, in order to provide the means to easily identify the narratives for the following steps.

Functional Analysis

The second step is to be a classification of sets of clauses into functions and extraction of the relevant functions. After the relevant sentences have been extracted, a short,

one-sentence paraphrase for both *orientational* and *evaluational* functions is formulated.

For the *orientational* clauses, the paraphrase aims to answer the following questions:

1. When and where did this happen?
2. Who are the actors involved in this story?
3. Which details does the interviewee include about the surroundings?

For the *evaluational* clauses, these questions should be answered (where possible):

1. Which opinions does the interviewee express?
2. Why is this story interesting?

The final result is a table comprised of a list of narratives per person, identified by their unique ID, including an entry for each of the narrative functions extracted, their full text and the paraphrase.

Comparison of orientational and evaluational functions

After completing the first two steps, which are situated in what Leithäuser and Volmerg describe as “*vertical hermeneutics*”, i.e. the in-depth analysis of a single interview, the third step is based on a *horizontal* approach [Leithäuser and Volmerg, 1988, p. 253], i.e. the comparative analysis of “*interpersonal commonalities and differences in view of certain phantasies, ideas, experiences and views*”¹⁶ (cf. [Schorn, 2000, p. 4]). To this end, a set of functions from different interviews sharing the same or similar topics are grouped together and compared, both by their full text and the paraphrase formulated in step two. Thus, commonalities and differences are extracted, which conclude the narrative analysis of the interviews and are presented in section 4.1.

3.4 Practical Implementation

This section serves as a description of the procedures involved in contacting the interviewees, conducting the interviews and organizing the collected data. Furthermore, it serves as a guide to reproduce the results of the data reduction process as described in chapter 3.3.

¹⁶Translated from German by the author, original quote: ‘interpersonelle Gemeinsamkeiten und Differenzen hinsichtlich bestimmter Phantasien, Vorstellungen, Erfahrungen und Sichtweisen‘

About the participants

As described at length in chapter 2.4, all the interviewees were contacted on deviantART, via the site's *Notes* system of private messages. The message sent (cf. A.1) contained a short introduction to the topic of the thesis, an outline of what the interview would involve and geographical limitations (for ease of access, the interviewees needed to be able to meet in or near Vienna, Austria for the interviews). Furthermore, the message clarified that the potential interviewees were contacted because they were members of one of three *groups* on deviantART - *devWien*¹⁷, *AustrianDeviants*¹⁸ and *AustrianPhotographer*¹⁹ respectively.

After confirming with the group's administrators that they had no objections against contacting their members, all users in the group were contacted with the request for an interview indiscriminately. However, members that answered back but were identifying themselves as professional photographers were excluded from the list of potential interviewees given the thesis's restriction on *Personal Photography*. Furthermore, users that were not of legal age in Austria²⁰ (according to their own description) and that could not attain their parent's or legal guardian's permission to partake in the study were not considered for the interview as well.

Although members would communicate amongst each other in those groups in a variety of languages, German was chosen as the default language for both the request and the interview themselves, and although the participants were asked if they preferred to conduct the interview in English, none of them chose to.

Interviews were scheduled over the course of 8 months, based on the interviewees responses; no further measure to filter or sort the interviewees were taken to ensure a thoroughly unbiased selection. Since the groups were not only focused on photography alone, that also meant that not all participants were solely engaging with deviantART through uploading photographs, but included drawings and other art forms as well. While these other art forms were touched upon in the interviews, the emphasis was put on the participant's photographic practices alone.

The following demographic data was collected about the interviewees: In terms of age, all 10 interviewees fell into an age bracket of 20 to 47. By decade, their respective ages are summarized in table 3.1.

Out of 10 interviewees (4 female, 6 male), 9 were living in Vienna, Austria, while only one lived in Lower Austria. In terms of their highest level of education, table 3.2 lists this distribution.

Finally, their current state of employment is outlined in table 3.3.

¹⁷<http://devwien.deviantART.com/>

¹⁸<http://austriandeviants.deviantART.com/>

¹⁹<http://austrianphotographer.deviantART.com/>

²⁰18 years or older

| Age distribution | Number of interviewees |
|------------------|------------------------|
| 20 - 30 | 6 |
| 30 - 40 | 1 |
| 40 - 50 | 3 |

Table 3.1: Age distribution of interviewees by decade.

| Highest Level of Education | Number of interviewees |
|----------------------------|------------------------|
| Apprenticeship | 1 |
| High-School Graduate | 6 |
| Bachelor's degree | 1 |
| Master's degree | 1 |
| PhD | 1 |

Table 3.2: The highest level of education achieved by the interviewees.

| State of employment | Number of interviewees |
|----------------------|------------------------|
| Student | 4 |
| Regularly Employment | 5 |
| Self-Employed | 1 |

Table 3.3: The states of employment of the interviewees.

About the interviews

All interviews were scheduled well in advance and conducted in a public setting such as a coffee house, restaurant or the mensa of a university. Upon meeting the participants, the interview was conducted following a simple script: After a short introduction of the author and the general context of the study, the participants were asked to sign a letter of consent (cf. A.1). Following this, the participants' questions about the nature of a qualitative interview were answered before the actual interview process began based on the lead questions outlined in section 3.2, followed by a quick collection of demographical data (consisting of the participant's *age*, *highest educational attainment*, *place of residence* and *occupation*).

The interviews lasted for an average of approximately 45 minutes, with 35 minutes being the shortest and one hour and 20 minutes being the longest. While the interview guidelines were roughly followed, the order of discussion varied from interview to interview for the topics at hand (based on the natural flow of conversation). In some cases, the interviewees expressed their wish to have the interviewer answer questions about his own experiences, which were deferred until after the end of the interview to

best counteract any bias the participants might be subject to through the interviewers personal reflections. It must be noted though that no steps were taken to obscure the interviewers personal connection to the topic of deviantART or Personal Photography in general.

Each interview was recorded via a digital dictaphone and subsequently transferred to a laptop for transcription. The author transcribed the interviews following an orthographic standard (as opposed to a phonetic one): dialect and geographically localized expressions were retained throughout the transcription where their meaning was relevant to the topic, but repeat expressions, non-lexical vocables like fillers ('uh', 'ähm', etc.) or pauses and other speech disfluency was removed for clarity and ease of reading where applicable.

Data Analysis

This section briefly outlines the process of data analysis involved in the study after the interviews were transcribed and aims to give an overview of the data collected in a quantitative form.

Qualitative Content Analysis

The transcribed interviews were an average of approximately 6625 words long, with the shortest being 4647 words and the longest being 9306 word in length. A total of 66254 words was recorded and transcribed as outlined above. The finished transcriptions were then imported into *ATLAS.ti*²¹, a qualitative data analysis and research software. Through the software's *coding* workflow, the interviews were then categorized by *quotations*: any section of text pertaining to a specific topic or area of interest was marked as a quotation and annotated with the appropriate *codes*. A single quotation would span no less than a single full sentence and could extend up to multiple questions and answers between the interviewer and the interviewee. Furthermore, some sections of text pertained to different areas of interest in different parts, thus creating overlapping quotations and codes.

To protect the participants anonymity, they were assigned pseudonyms from *A* to *J*, which is also how they are referred to throughout this study.

The process of *coding* the quotations was done in two iterations: The first iteration assigned preliminary codings and resulted in a total of 26 codings, the second refined those categories by combining and rephrasing them; the final outcome were a total of 22 codings, listed here in the order of their first appearance:

²¹atlasti.com

1. Education
2. Photography Websites: deviantART
3. Copyright
4. Analog Photography
5. Equipment
6. Exhibitions
7. Facebook, Flickr
8. Family, Peers
9. Hipstamatic, Instagram
10. Locations, Motifs
11. Photography Websites: Other
12. Practice: General
13. Practice: Archiving
14. Practice: post-processing
15. Practice: Prints
16. Practice: Smartphone
17. Professional Photography
18. Quality of a Photograph
19. Sharing and Feedback
20. Techniques
21. Is your photography art?
22. Time Investment

Following this, the coded quotations were extracted laterally across all interviews and categorized by their respective codings and, following the approach detailed in the previous section (cf. 3.3), translated and paraphrased²². This categorization was collected in a list of spreadsheets (one per coding) and organized by interviewee. Given the qualitative nature of the interviews, each sheet would possibly contain multiple paraphrased statements by single interviewees, but not all interviewees would have made statements

²²Given the necessity for a translation to match the language of this thesis, the decision between first paraphrasing the quotations in German and then translating them into English, and paraphrasing and translating them in one step was made in favor of the second option due to time efficiency; given that each quotation was still connected to its textual passage, this seemed a reasonable approach

pertaining to a specific coding: some codings contained statements by all interviewees, while one coding (*Copyright*) contained statements by only 2 interviewees.

It is worth noting that there was an additional coding - *Narrative: Personal History* - which was applied to the entirety of questions and answers in the first part of the interview, which was not extracted with the other codings. The reason behind this choice was that the quotations from this coding were too long and too diverse to paraphrase in a concise manner without omitting too much information; the coding itself was relevant to the narrative analysis and as an overall extraction marker for the interviewees' personal history with photography.

The next step in analyzing the results was iteratively categorizing the paraphrased statements and reducing them based on the overlap of their content. Each paraphrase was compared to the other paraphrases with the same coding, and a unified summary of similar codings was devised using a color-coding schema to allow tracing the categories back to interviewee's statements. An additional iteration of review for these categories revised the initial selection, rephrased some of the categories and added or removed a few paraphrased statements from them. This process yielded a list of unified categories of paraphrased quotations as well as some non-categorized statements (that were left as singular categories by themselves, to be used to enrich other statements or supplement the views gained from the interviewees' other statements).

In a third step, the created categories were re-evaluated by tracing them back to the paraphrased statements and original quotations, verifying that they represented an accurate representation of each quotation.

The resulting, color-coded list of categories and non-categorized paraphrased statements represents the basis for the qualitative content analysis presented in the next chapter.

Narrative Analysis

Supplementing the data collected by the *qualitative content analysis*, the narrative analysis aimed to enrich the information gained from the interview's horizontal and lateral analysis by comparing *orientational* and *evaluational* clauses from narratives told by different interviewees pertaining to the same areas. Thus, a narrative on an interviewee's personal history with photography would become comparable on a clausal level - for instance by comparing the contextual information they supplied to enrich their story with other interviewee's narratives.

In order to match the narrative clauses between interviewees, the same coding schema was used as before; an orientational clause that was part of a narrative marked as, for instance, *Practice: General*, would also be marked for this coding. Since textual passages (containing a single narrative clause) were often marked with 2 or more codings in the transcript, the narrative in question was taken as a reference to determine which coding to attribute the clause to: the coding with the most or longest references in the text spanned by the narrative were chosen as the category for the clause in question.

One exception was made in the congruence of codings between the *qualitative content analysis* and the *narrative analysis*: since the content analysis was not using the coding *Narrative: Personal History* due to its length (this coding spanned multiple sets of questions and answers in every interview), but was a reasonable overall marker for a shared narrative category between all interviewees, any orientational and evaluational clauses encountered as part of this coding were attributed the category *Narrative: Personal History*.

The final result of this narrative analysis consisted of a list of clauses, each entry of which contained the interviewee, their category, as well as one orientational and one evaluational clause from this narrative, in the order of appearance. This meant that some categories had multiple entries for the same category and interviewee, sometimes containing only the orientational or the evaluational clause (where a narrative was not fully formed or the number of either clauses was not the same for the given narrative and interviewee).

Given the fact that the narrative clauses extracted in this analysis were collected *as is* and without paraphrasing to preserve the nuances of speech, a translation into English was not attempted as part of the extraction process.

Analysis

'For me the future of the image is going to be in electronic form. [...] You will see perfectly beautiful images on an electronic screen. And I'd say that would be very handsome. They would be almost as close as the best reproductions.'

Ansel Adams [Hill and Cooper, 1979]

This chapter focuses on the results of analyzing the interviews as described in the previous chapter (cf. 3.4), the limitations of the study and its results as well as a short outlook for further study and a conclusion.

4.1 Empirical Findings

Examining the categories and paraphrases extracted in the analysis of the interviews (cf. 3.4), a set of six topics emerge that allow grouping the 22 codings as shown in Figure 4.1. They are, in no particular order, *Biographical and Narrative, Practice, Technologies and Techniques, Social Interactions, Online and Offline Tools* and *Reflection*. Each of these topics shed light on a different aspect of *Personal Photography* as practiced by the interviewees and produce what Geertz calls a *thick description*: a “[...] stratified hierarchy of meaningful structures [...]”[Geertz, 1994, p. 215]. They highlight the interviewees history with photography, specifically as a means of self-expression, their regular or irregular practices of engaging with photography, the technologies, techniques and online or offline tools involved in this practice, the social interaction connected to personal photography, and finally, their own reflections on their engagement with photography. As such, this chapter explores what can be learned from these descriptions

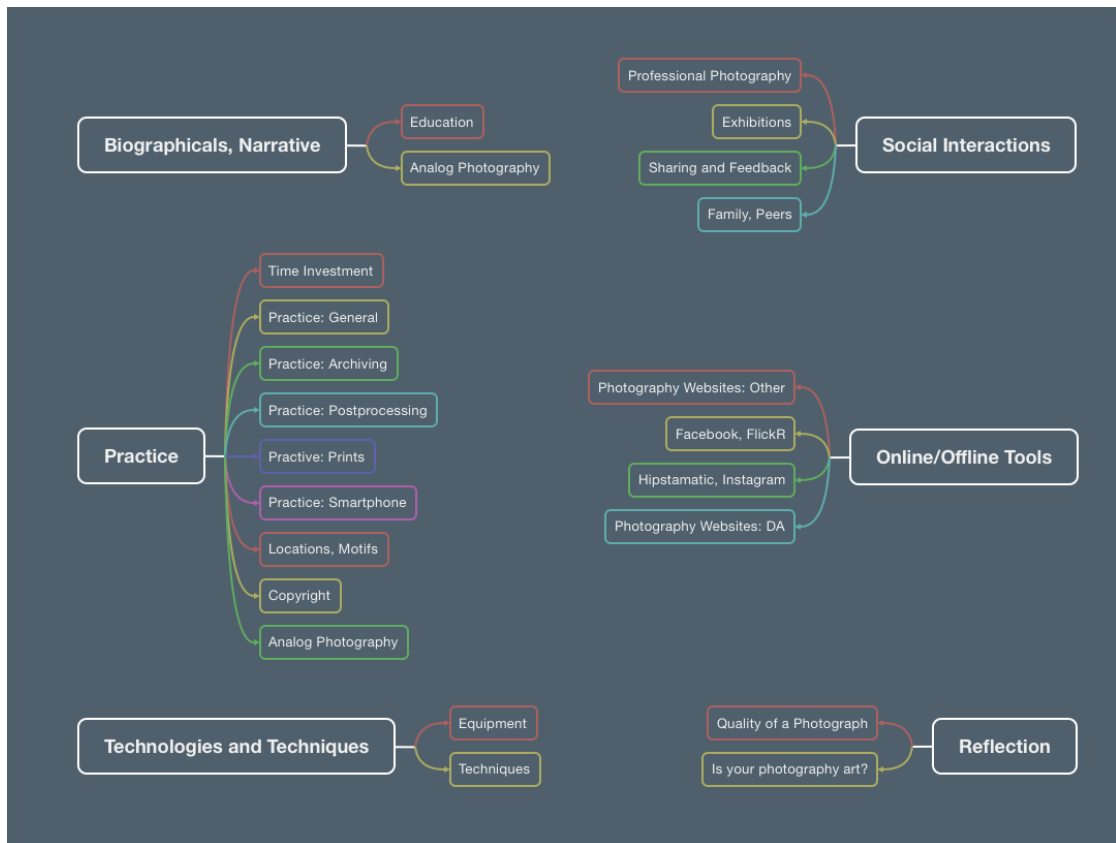


Figure 4.1: Codings by Topics

and contextualizes them within the topic of this thesis.

References to the transcripts can be found throughout this analysis: [Interviews: p. XX]. The transcripts themselves are available in printed form at the Institute for Design & Assessment of Technology of the Technical University of Vienna¹ or in digital form from the author.

Biographical and Narrative

Asked about their personal history with photography, the interviewees produced a wide range of narratives; what immediately comes to attention is a certain overlapping of the origins of their connection to photography. Almost entirely, they cite their family and, time wise, their childhood/youth as their first cognitive contact with photography, although some point out that the social use of photography at the time of their first contact was *memory* (congruent with van House's definition[Van House et al., 2005]).

¹<http://igw.tuwien.ac.at/>

Generally, the interviewees expressed their low opinion of this social use (from simple dismissal to outright aversion) - as one interviewee, *E*, puts it:

*Photographing always starts with family photos, and particularly with this aversion of mine, because one has to stand still and always 'smile' nicely, and then says: 'Well, now that's the perfect photograph...'*²

(Interviewee *E*, [Interviews, p. 34])

It is also worth mentioning that several of the interviewees state that their own interest in photography was triggered because a close family member (ie. a parent or an uncle) acquired a camera (that was more advanced than a simple point-and-shoot camera, ie. a (d)SLR³) and let them '*play around*' with it. Whether or not this family member was using the camera for artistic purposes is a dividing factor between different interviewee's statements: while some interviewee's parents had a connection to art and photography (for instance, *C* mentions her parents owned an advertising agency and were interested in graphic design [Interviews, p. 19]), other's parents and family members did not and purely employed cameras for non-artistic purposes.

Analog Photography

Given the interviewee's age (ranging from 20 to 47 years of age), six of them had their first contact with photography at a time where digital photography was not (widely) available and hence had their first photographic experiences with analog photography. While most of those experiences were non-artistic in nature (*E* jokingly describes herself as 'Destroyer of Film'⁴ when on holiday with her family as a child [Interviews, p. 35]), interviewee *G* remembers learning about the '*alchemy of the darkroom*'⁵:

*Well, the first time I got into contact as a 10, 11, 12 year-old... because there was some acquaintance that also did that, and he introduced me to the alchemy of the darkroom at some point, and I found this to be extremely fascinating. First of all, to be able to do this yourself, meaning, you only know it as dropping off the film somewhere and pick it up later or something, but to be able to splash around and that's... yes, actually - and suddenly you've got a film, and then the film transforms into an image, and the image appears in the developing fluid, that's something nice then.*⁶

(Interviewee *G*, [Interviews, p. 57])

²Translated from German by the author, original: "Photographieren fangt immer mit Familienphotos an, und vor allem mit dieser Aversion meinerseits, weil man sich immer hinstellen muss und man immer schön 'smilen' muss, und sagt, 'So, das ist jetzt das perfekte Photo...'"

³(Digital) Single-Reflex Camera

⁴Translated from German by the author, original: "Filmvernichter"

⁵Translated from German by the author, original: "Alchemie der Dunkelkammer"

⁶Translated from German by the author, original: "Also, das erste Mal in Kontakt gekommen bin ich ungefähr mit 10, 11, 12 Jahren... weil es im Bekanntenkreis jemand gegeben hat, der das auch getan hat, und der hat mich dann irgendwann mal eingeführt in die Alchemie der Dunkelkammer, und das hab ich einfach wahnsinning faszinierend gefunden. Erstens, dass man das selbst tun kann, also, man kennt

As *G* explains later, this interest in analog photography did not subside - on the contrary, he states that he wants to “[...] become more and more analog”⁷ as part of his photographic activities, including creating his own paper and publishing a completely self-created photo book[Interviews, p. 60]. Interestingly, his biography shows that it was the rise of digital photography that brought him back to photography after a failed attempt at becoming a professional photographer in the 1990s and not pursuing photography at all for more than a decade[Interviews, p. 58]. Currently, he is using both digital and analog methods, and also has invested significant time and financial effort into his interests, including renting an atelier he converted into a darkroom and photographic workshop.

The other interviewees show less enthusiasm for analog photography, although *B* mentions owning and using an analog SLR⁸ on holidays, albeit due to being afraid of having his (more expensive) digital SLR stolen[Interviews, p. 17]. Asked what kept them from pursuing analog photography, the most common answer was the costs and efforts involved in shooting and/or developing analog film compared to digital photography. Confronted with the hypothetical situation that digital photography didn’t exist, only two of the interviewees (*C* and *G*) stated that they felt they would still pursue photography for artistic purposes; most of the others were hesitant or even decidedly said it would not be worth the effort for them anymore[Interviews, eg. pp. 24, 60, 91].

Besides the efforts involved, the interviewees expressed generally positive opinions about analog photography; *B*, *C*, *F* and *G* had experience in the darkroom, developing film and/or making prints and described the experience as interesting and enjoyable[Interviews, pp. 18, 19, 52, 57]. Furthermore, *I* mentions that she appreciates the aesthetics of analog photos although she has only negligible experience with analog cameras and no experience at all at developing photographs[Interviews, p. 80].

Education

As part of the inquiry into the participant’s personal history with photography, the question how they acquired the necessary skills for their photographic activities was a central point of interest. Seeing as most of the interviewees utilized a dSLR - a camera far more complex, yet also with far more potential for customization and manual exposures than a simple point-and-shoot camera or the camera app on their smartphones - they spent significant time learning how to operate the camera, how transfer the photos to their computers and about post-processing their photographs. Combining those who said

das ja nur, man gibt die Bilder irgendwo ab und holt sie sich später wieder oder so, aber dass man da herumplanschen kann und das ist... ja, eh - und plötzlich hat man einen Film, und anschließend wird aus dem Film echt ein Bild, und das Bild dann auftaucht im Entwickler ist das dann auch was Schönes.”

⁷Translated from German by the author, original: “Ich möchte eigentlich immer analoger werden.”

⁸Single-Reflex Camera

they would mainly use *trial and error*⁹, those who described themselves or their learning-style as ‘*auto-didactic*’ and those that named the Internet as their primary source of information on photography, seven (*A, B, C, D, E, F* and *J*) of the then ten participants cited a form of auto-didactic learning as their primary source of knowledge[Interviews, pp. 15, 54, 58, 98, et al.].

Some interviewees mentioned having had some kind of education in analog photography in school (developing film in the darkroom, for instance); *C* had attended a high-school with a focus on art in general, which did include some aspects of photography but was by no means focused on it. Only one participant, *G*, pursued more formal types of education, specifically in the form of attending an artistic school for photography and workshops on making (photographic) paper and alternative photographic techniques[Interviews, p. 58] - none of which pertained to digital photography.

Asked about their online and offline sources for information regarding photography, they mention a broad range of different types of media, including topical forums or bulletin boards, how-to-guides (both on deviantART and other web-sites) and tutorials about specific techniques or products, books on photography, and - as both first and last resort - simply searching for the answer to a question on Google. (Video-)Tutorials and similar guides are being mentioned particularly frequent, with one participant, *F*, referring to tutorials on deviantART specifically as an important aspect of the web-site for him[Interviews, p. 54].

It is worth mentioning that when it comes to online resources on photography, the overwhelming use was to answer technical questions or research specific techniques, such as *HDR*¹⁰-*Photography* or explanations about concepts like *shutter speed* and *aperture*. No participant mentioned online resources as a source for artistic development. On that topic, *E* explains that she believes good technique does not necessarily lead to good photographs:

*You know the craft, but the life is missing from your photos. That means: You mastered the craft, you mastered the technology, but that does not make you a good photographer!*¹¹ (Interviewee E, [Interviews, p. 42])

Interviewee *I* explains, why she isn’t that interested in the technical aspects and furthering her knowledge (although she would have ample opportunity through peers that studied at *die Grafische*¹², a school for graphic design):

[...] I just believe in this intuitiveness, this uniqueness, that can resonate in a person and that, somehow, tells them, they can’t escape expressing themselves

⁹An auto-didactic process where, as Young writes, one “[...] tries out new strategies, rejecting choices that are erroneous in the sense that they do not lead to higher payoffs.”[Interviews, p. 1]Young:2009je

¹⁰High-Dynamic Range

¹¹Translated from German by the author, original: “Du kannst das Handwerk, aber es fehlt Leben in den Photographien. Das heißt: Du beherrschst das Handwerk, Du beherrschst die Technik, aber deshalb bist Du kein guter Photograph!”

¹²<http://www.graphische.net/>

*now, I mean, I believe in this and it might sound arrogant, but I think, one can look at art and see this and assume, if it really is that way... if you feel like it really comes... really comes from within and not, I don't know, because that's the latest fashion [...]*¹³ (Interviewee I, [Interviews, p. 87])

Other participants mention this differentiation between technical knowledge and artistic skill as well, albeit implicitly when describing their learning habits - *trial and error* seems the main source for artistic development.

Practice

Regarding the participants photographic practices, the investigation concentrated on two main areas: the context in which they were *taking photographs* and what happened to the photos in terms of *archiving, post-processing* and/or *printing* after they were transferred from the camera to a computer. Besides these, the codings in this category shed light on the time the participants spent on their photographic activities, their favorite *motifs* and *locations* for photography and their use of *smartphones* for photographic purposes as well as the steps they take to preserve their rights in regard to and intellectual property of their photos.

Photowalks, Conventions and the Backyard

Photography is, by and large, an activity in and of itself, according to the participants: eight of the ten interviewees reported going on photo-walks or similar outings with the express purpose of taking photos. Interviewee *A* will go to the park, take his camera along and just “[...] take things as they come [...]” - but also specifically seek out a location he wants to photograph, at the right time of day and lighting situation [Interviews, p. 5]. Beyond that, he also will simply use his own backyard to take some macro-photographs or experiment with long-exposure photos of the stars at night. On this topic, *B* muses about the opportunities for macro-photography to be found in his own garden:

*I'll purposefully go on photo-walks, too, but never particularly far, essentially in my own garden, because, if you just lift a leaf off the ground you'll find something. The animals are quite small there, and so one square meter somewhere in the bushes is a huge space for photographing.*¹⁴

(Interviewee B, [Interviews, p. 12])

¹³Translated from German by the author, original: “[...] ich glaub' einfach an dieses Intuitive und Einzigartige, was in einem Menschen schwingen kann und ihm irgendwie sagt, er kann nicht anders als sich jetzt so oder so auszudrücken, also, ich glaub' daran und es klingt vielleicht anmaßend, aber ich finde, man kann das auch Kunstwerken ansehen und unterstellen, wenn es jetzt tatsächlich so ist, wenn Du das Gefühl hast, es kommt wirklich so... so aus Dir heraus und nicht, keine Ahnung, weil das grade eine modische Tendenz ist [...] ”

¹⁴Translated from German by the author, original: “Ich geh' aber auch wirklich absichtlich auf Photowalks, aber halt nie sonderlich weit, im Garten im Grunde, weil, wenn man einfach ein Blatt hochhebt dann findet man schon was. Die Tiere sind halt doch sehr klein, und dadurch ist ein Quadratmeter irgendwo im Gebüsch halt schon eine riesenfläche zum Photographieren.”

Beyond his own garden and going on photo-walks with his dogs to the forest, *B* also frequents *Cosplay-Conventions* with the express purpose of shooting portrait photos there. As Samoylova sums up the origins of *Cosplaying*:

The term “cosplay” is derived from the English costume-play”, which translates as cosplay. Many relate cosplay to the theater or ball-masquerade, although this is not entirely true. Cosplay implies transformation into Japanese anime characters, manga, computer games, as well as attempts to “try on” the image of the typical representatives of national culture (samurai, geisha, emperors). (E. Samoylova, [Samoylova, 2014, p. 844])

Cosplaying as a leisure-time activity is, as Samoylova points out, by far not a Japanese phenomenon any more and has spread all over the world in the form of so-called ‘conventions’, where people meet costumed as their favorite fictional characters. Given how elaborate and intricate some of these costumes are, it comes as no surprise that photographing cosplayers has become a growing niche of photography - a fact that deviantART accommodates for by having whole sections dedicated to various kinds of cosplay and the photography thereof. *B* describes how he was introduced to this niche by an acquaintance and subsequently invited to join in on a visit to such a convention in Graz, Styria, which piqued his interest and has made visiting conventions to engage in this kind of photography a regular activity for him. As he elaborates, this particular interest has had some profound impact on his social life as well:

*[...] and for a long time, I felt the same way, that I didn't like people. And with Cosplay I found... the community I can relate to, because there are the same kind of Gaming-Freaks and weirdos about as I am. Finally, I've found a few people that are even a tad worse than me, and a tad more extreme.*¹⁵
(Interviewee B, [Interviews, p. 11])

Similarly, photographing his interests are a core motivator for *J*'s outings as well, who is interested in and attends meetings of (US-American) car conventions in and around Vienna. Contrary to *B*, he does not see this as specific photography-outing, and rather describes that he just takes the camera along and spontaneously decides to take a picture only when something grabs his attention [Interviews, pp. 94-95].

Not all outings with the express purpose or at least possibility of taking photos are as specific as *B*'s or *J*'s: *C* and *I*, who are both interested in architectural photography, will go on photowalks in neighborhoods or cities with interesting buildings and monuments (or, in the case of *I*, going out in search of topically linked buildings, such as touring Vienna in search of Otto Wagner architecture), *D* goes on hikes to engage in his landscape

¹⁵Translated from German by the author, original: “[...] mir ging's eigentlich lange Zeit auch so, daß ich keine Menschen hab mögen. Und mit Cosplay hab' ich ... die Community gefunden die mir auch zusagt, weil da sind halt auch so Gamerfreaks und Verrückte unterwegs wie ich. Endlich hab ich ein paar Leute gefunden die auch noch eine Spur schlimmer sind und noch eine Spur extremer.”

photography, *G* seeks out the same locations over and over again to capture the scene he envisions in the perfect light conditions, and *E* goes to the Vienna Zoo to photograph animals she can not easily encounter in the wild[Interviews, pp. 20, 81, 28, 59, 39].

Often, these activities aren't solitary, but involve taking along friends or family, either as potential subjects or because they share in the activity. *C* stated that she always went out in the company of friends or her father, although she was always the only one taking pictures; *D* is being accompanied on his hikes by his wife, which also becomes a photographic subject for him then, but doesn't photograph herself, and *H* relates a story about a recent visit to the gardens of Schönbrunn castle, Vienna, where she accompanied her brother and a friend, all of which were taking pictures there[Interviews, pp. 20, 30, 78].

While planned photography sessions seem to take a large role in the interviewee's lives, they are not the only approach. Three interviewees, *E*, *F* and *H*, state that they take their camera with them most of the times they leave their home. *E*, in particular, prefers not to force herself to take pictures, because she feels the results are not as good when she does[Interviews, p. 37]. Both *E* and *H* mention being afraid of missing an opportunity when they see something photo-worthy and do not have their camera with them (or run out of battery, as *H* tells in a story of a visit to Rome).[Interviews, pp. 37,70] And finally, *F* describes his photographic activity as concentrated on his holidays, specifically trips to South Africa with his family, where he would engage in long photo-sessions to create panorama views of the bay area[Interviews, p. 48].

Archiving

As some of the interviewees mentioned, one of the strongest advantages of digital photography is the sheer endless amount of photos one can take and save with very little financial effort. While they generally saw this as a positive aspect, it also means that additional efforts are necessary to archive these photographs, lest they be forgotten or can not be found when needed - as *A* illustrates when he jokingly calls the folder he saves his photos in his 'Photograb'¹⁶[Interviews, p. 6].

Generally, the participants transfer photographs from their camera's memory cards onto a personal computer to archive, post-process and share them. *E*, *F*, *H* and *J* stated that this would normally be soon or even immediately after they took the photos, while others would take longer until they emptied their memory cards[Interviews, pp. 70, 95].

Asked about their archival system, two separate schools of thought and one mixed form could be observed: While *B* and *I* use a system based on topics to sort and archive their photographs, *A*, *F*, *G* and *J* sort their photos chronologically (some in a year/month/day scheme, some only by year and month)[Interviews, p. 6, 51, 84, 95]. *E* and *H* use a mixed approach, where they will sort their photos by date and then by topics (monthly in the case of *E*, by seasons in the case of *H*)[Interviews, p. 40, 70].

¹⁶Translated from German by the author, original: "Bildergrab"

What unites them all is that they rely solely on the operating system's folder structure for categorization and do not make use of photo-archiving software for this purpose, although *G* states that he is using Adobe Lightroom¹⁷ to post-process his photos, but does not use any of the archival functions of the program (such as tags or keywords); it must be noted though that Adobe Lightroom sorts photographs by date as part of its core feature set by default[Interviews, p. 60]. Other participants also mentioned trying out different photo-archiving and post-processing programs similar to Adobe Lightroom, but had not stuck with using them, due to the fact that they felt their needs were already met by their own system of categorization[Interviews, p. 13].

Not all photos end up in their respective archiving systems. Some of the participants (*A*, *B*, *E* and *H*) follow a stringent policy of deleting 'bad' pictures, either directly after transferring them from the camera or up to half a year later[Interviews, p. 6, 13, 39, 72]. *F*, on the other hand, claims he never deletes any photos, in case he wants to go back and work on them again later, but he will move the photos he likes and post-processes to a different folder[Interviews, p. 51].

One special case of archiving is *I*'s system: Contrary to the other participants, her system of folders based on topics do not only contain her photographs, but a variety of mixed media (photos, scans of drawings, texts and scribbles). She explains her strategy of archiving like this:

*Well, I generally keep them in one main folder. If I want to find them, I search for them by date, and if I have a flash of inspiration and I can come up with a keyword [...] then [...] I'll create a folder and I'll give it that flash of inspiration as a title. So, the last one I named 'golden nihilism', in English... it's just a phase in my life, well, I see my life in phases, somehow... it's a bit tricky to explain... I used to [do] this much more intensive... well, every three or four months I created a new folder, and there I put a mixture of my photographs, drawings and texts, under that keyword - maybe a song title, a poetry fragment or my own word games - then I saved that, but currently these folders are getting more rare, and that one was the last one.*¹⁸

(Interviewee I, [Interviews, p. 84])

As she goes on to explain, this technique helped her track change and progress in her life, and the fact that the intervals in which she creates these folders are getting longer

¹⁷cf. <http://www.adobe.com/products/photoshop-lightroom.html>

¹⁸Translated from German by the author, original: "Also, ich hab' sie eigentlich alle in einem Haupt-Ordner. So wenn ich sie raussuchen will, gehe ich nach Datum, und wenn ich für mich selber eine Art Geistesblitz habe und mir ein Schlagwort einfällt dann [...] erstelle ich schon einen Ordner und betitel ihn dann mit meinem Geistesblitz eben. Also, ich hab das letzte [...] unter dem Schlagwort [...] goldener Nihilismus, auf Englisch, genannt... es ist einfach so eine Lebensphase, also, weil ich sehe mein Leben in Phasen irgendwie... es ist ein bisschen komisch zu erklären... Ich hab das früher viel intensiver - also, da hab ich alle drei vier Monate das sozusagen in einem Ordner erstellt, und da hab ich eine Mischung aus Photographien, Zeichnungen und Texten, unter eben einem Schlagwort - war's ein Liedertitel, ein Gedichtfragment oder eigene Wortspielerein - hab ich das dann abgespeichert, aber mittlerweile werden jetzt sozusagen diese Ordner immer seltener, und das war der Letzte."

is just another sign of change for her - one that also influences her artistic development (as a photographer and otherwise).

Post-Processing

The limitations of developing film and creating prints in a darkroom extend to the final outcome - a change in contrast, boosting a certain color or the saturation in general, are all difficult to achieve. Digital post-processing methods, as offered by almost any photo-software (including smartphone applications), has become so ubiquitous that it comes as no surprise that the participants engaged in a wide range of processing, manipulating and otherwise changing their photographs after they were taken, yet before they were shared.

Three separate stages or intensities of processing could be observed, in the order the participants (implicitly) rated their invasiveness:

1. Correction of colors, contrast, saturation or technical faults
2. Cropping, resizing or rotating
3. Photo manipulation, distortion, addition, (re-)combination

The first one was reported as the most common form of post-processing - only two interviewees (*H*, *J*) stated that they did not post-process their photos in any way; pressed on that point, *J* conceded that he did add watermarks to his photos to preserve his intellectual property rights on the image, but did not see this as post-processing the photos - as he put it, “[...] *original is still the best!*”¹⁹[Interviews, p. 95]. All the other interviewees stated that they would process their photos for color or contrast corrections in one way or another. *A*, for instance, likes well-saturated photos and will correct this in his exposures, and *C* will correct color and contrast and has tried a high-pass filter to increase the sharpness [Interviews, pp. 5, 22].

Secondly, changing the size or cropping of a photograph to better frame a motif, was mentioned less frequently, specifically only by *D*, *F* and *I*[Interviews, pp. 29,57,80]. Although not named explicitly, it is worth noting that the participants who said they engage in more radical forms of photo-manipulation would probably use cropping, rotating and resizing as well.

Finally, changing photographs beyond corrections, but distorting it as a creative process was reported by *D*, *E*, *F* and *I*. *D* has tried out some photo-manipulation but draws the line at adding something to the picture - he would not share a photograph thus changed in the photography section of deviantART, but rather in the ‘mixed media’ sections, making it very clear that this was not the same photograph he shot with his camera[Interviews, p. 29]. *F* mentions using a *blur-filter* to simulate a tilt-shift lens, and *I* explains how she sometimes adds noise, converts her photos to black and white, adds text and creates collages with her photographs[Interviews, p. 51, 84]. *E*, on the other

¹⁹Translated from German by the author, original: “[...] original ist immer noch am Besten!”

hand, pursues a slightly different goal with her photo-manipulation: as she explains, her photography evolved to be more and more distorted, to the point of surreality, with the ultimate goal of creating the illusion of a fantasy world:

And then started to let the photographs... how shall I put it... seem like a fairy-tale. So I always threw in some soft focus filter, and it always looked... fairy-tale-like, everybody said... [...] And that was the pivotal point for me, where I always thought, ok, that's the way I want to go... because... it should look like a fairy-tale, it should... be more beautiful, and something more made up, because, as I said, we have so much reality around us that I don't need to reproduce that necessarily. ²⁰ (Interviewee E, [Interviews, p. 35])

Interestingly, only minutes later, she points out that Adobe Photoshop should, in her eyes, be just a support program and not a magic trick, or specifically, it should “[...] emphasize, but not distort [...]” [Interviews, p. 36]. As her language suggests, she seems to be struggling with contradicting feelings about photo-manipulation and the extent of distortion she wants to subject her photography to.

Asked about the number of photographs they would post-process, the answers ranged between 2% and 10%; *D*, for instance, says he post-processes about 5% of his raw photos; *F* estimates about 2% to 4%. *E* points out that the percentage of ‘good’ photographs - the ones she does not delete and considers for post-processing - depends largely on the motif: children and animals require more shots until she’s satisfied, whereas needing ten or more shots for a photograph of a house would be “*pathetic*”²¹ [Interviews, p. 38].

On a sidenote, several of the interviewees mentioned using their camera’s RAW format as opposed to the JPEG format, giving testament to their professionalism and expertise: Since the RAW format is a close representation of the data captured by the camera’s sensor without any filters, a RAW photo must be post-processed before it can be shared or used in any way (cf. *A*, *B*, *D*, *F*) [Interviews, p. 2,3,6,13,33,52].

Post-processing their photos is more than just a necessary preparation for sharing though: several interviewees mentioned that they would take time to look through old photos and pick some of them for post-processing long after they were taken; distance in terms of time passed between taking the photographs and post-processing gives them perspective and sometimes, as *B* puts it, yields “true jewels”²² [Interviews, p. 13]. Furthermore, sharing seems to be a motivational factor to engage in post-processing ac-

²⁰Translated from German by the author, original: “Und dann hab’ ich angefangen, die ganzen Photographien... wie soll ich sagen... wie ein Märchen erscheinen zu lassen. Also ich hab immer so einen Weichzeichner hineingeworfen, und es hat immer so... ja, märchenhaft sagt jeder dazu... [...] Und das war für mich dann irgendwo der Knackpunkt, wo ich mir gedacht hab, ok, das ist eigentlich schon der Weg, den ich gehen möchte... weil... es soll ja ein Märchen sein, es soll... es soll schöner sein, und es soll etwas mehr Erfundenes sein, weil, wie gesagt, wir haben so viel Realität um uns herum, da brauch’ ich jetzt nicht unbedingt das wiedergeben.”

²¹Translated from German by the author, original: “Armutzeugnis”

²²Translated from German by the author, original: “echte Juwelen”

tivities - *B* explains that he only found interest to post-process his photos through his activity on deviantART, and had not done this before then[Interviews, ibd].

Prints

While the printed photograph is an integral part, if not an outright necessity of analog photography, it becomes optional when mainly taking digital photos, which is reflected in the participant's answers on that topic. While seven out of ten interviewees stated that they had, at some point, printed their photographs (or had them printed and/or framed), only three of them would do it regularly and deemed it an important part of their photographic routine (*A*, *E*, *G*). *G* is the interviewee that most strongly pursues this, since (part) of his process is analog to begin with, which means that for him, the true end-product is a physical print of his pictures; furthermore, his current goal to create a photo-book from scratch requires his photos in a physical form, of course[Interviews, p. 60]. Photobooks are also the most regular form of prints *A* and *E* create, although they use companies that offer this as a service and do not produce them themselves[Interviews, pp. 7, 44]. In addition to this, *E* states that it is very important to her to have physical copies of her photos on display in her home (she mentions a collage in her entrance hall)[Interviews, p. 44].

Those who create prints generally also give them away to friends and family. The photobooks mentioned by *E*, for instance, are specifically targeted at her family, trying to create a summary of the year in the form of 'highlights':

[...] those [photobooks] are more or less meant to... finish the year, and say: ok, that were the highlights of this year, and that kept me busy this year, and ... more or less recreate how I felt, or just... what I did that year. You could see that as... a kind of performance curve, of emotional graph, and that's documented in this form. ²³ (Interviewee E, [Interviews, p. 44])

As the quote shows, these photobooks fulfill two overlapping functions as per van House, both that of *memory* and *expression*: On the one hand, *E* documents her year and shares that with her family, but on the other hand, she uses her artistic photographs, and feels the physical artifact can be an emotional representation of her self - an expression of her self. She even goes on to point out how this mixing of social uses can lead to cognitive dissonance between her and her family's perception of these photobooks, stating that her family "*[...] half of the time doesn't understand why there's suddenly an*

²³Translated from German by the author, original: "[...] das soll quasi... das Jahr abschließen, und sagen: ok, das waren die Highlights von dem Jahr, und das hat mich in dem Jahr beschäftigt, und ... quasi, wiedergeben, wie ich empfunden habe, oder eben... was ich eigentlich alles in dem Jahr getan habe. Das kann man quasi auch... sozusagen die Leistungskurve sehen, die Gefühlskurve kann man da sehen, und das ist halt in dieser Form dokumentiert."

*image in there that has nothing to do with the context, but they have to deal with that [laughs]!”*²⁴[Interviews, ibd]

Smartphones

The speed at which smartphones and their cameras evolve, both in terms of quality and software capabilities, would suggest that more and more users start using their smartphone cameras to express themselves artistically or even replace traditional camera gear and software. The image the interviewees painted suggests otherwise: While *G* and *H* are outright opposed to smartphones in general and do not use them at all for photography, five of the others do have a smartphone and occasionally use its camera as well [Interviews, p. 62,76]. Asked about when they would use it, all five gave an explanation amounting to ‘when I absolutely have to’ or ‘when I don’t have any other choice’. Reasons to use the smartphone given included *to remember things or events*, *to share and post funny things online* and *when no other camera is around* [Interviews, pp. 12, 21, 32, 100].

Only *F* and *I* use their smartphones more frequently. *F* tells the story that his dSLR camera is and has been broken for some time, and that he hasn’t gotten around to either repairing or replacing it. Due to the fact that he recently acquired a smartphone with a comparably good camera, he started using it more and more for his photography as well [Interviews, p. 49]. *I* says she uses her smartphone more often than her real camera nowadays - she appreciates the fact that the process of photography is more unified or ‘all-in-one’ on her phone than with her camera, although she still post-processes the photos she takes, and shares them online [Interviews, pp. 81,82].

Time Investment

Given the multitude of different activities involved with personal photography, the amount of time spent on photography can be significant. Asked specifically how much time they spend on photography in general, most of the participants could not come up with a number of minutes or hours. What seems to be clear though is that their engagement in photographic activities varies largely and depends on many other aspects of their lives. Some gave insight into how much time they *wouldn’t* be willing to spend - *D*, for instance, stated on the topic of his hiking adventures that he would not be willing to spend two days in the snow waiting for wild animals to appear, and *B*, looking for quick results when post-processing his work, said he would not be willing to spend half a day on post-processing 80 photographs [Interviews, p. 28,13]. On the same topic, post-processing, *A* estimated that he would spend between 10 minutes and two hours on a single photograph, but could not estimate how often he actually engages in his photographic activity [Interviews, p. 7].

²⁴Translated from German by the author, original: “Die das dann zur Hälfte auch nicht verstehen, warum dann urplötzlich auch ein Bild drinnen ist, das mit dem Kontext nix zu tun hat, aber das müssen sie halt in Kauf nehmen [lacht]”

The only participants that could give a clearer estimate were *G* and *D*. *G* explained that he decided to invest into the atelier he rented partly because he could also use it as an office for his work, and that this gave him the opportunity to work at least one hour per day on his photography - adding that this could mean anything between reading up on a topic online or actually developing film or post-processing pictures as well as online sharing and interaction[Interviews, p. 64]. *D*'s regular activity was deviantART-related: he stated that he would log in almost daily and spend between 30 and 60 minutes on the website[Interviews, p. 28].

Technologies and Techniques

With the wide range of cameras and camera equipment available today, the tools the participants use to pursue their photographic activities are highly relevant to the study; as explored in chapter 2.3, the technical apparatus itself limits and shapes the way photography is and can be pursued.

The first and foremost distinguishing factor is, of course, the camera itself. Compact digital cameras or *point-and-shoot* cameras, as they are sometimes called, play an important role for many of the interviewees: although only one of them, *H*, uses such a camera exclusively for her photography, most others report using one at some point[Interviews, p. 66]. *E*, for instance, reports buying a Canon brand DigiShot as her first digital camera, *A* started out with a similar point-and-shoot camera, and *F* only recently gave his compact Panasonic brand Lumix camera away to his son as his first camera[Interviews, pp. 1, 35, 49]. The limitations of such a camera, both in quality and limited influence on the outcome, drove them towards dSLR cameras, and Canon brand cameras specifically. Out of the nine dSLR-users, only *C* uses a Nikon brand D90 camera, while all the others own Canon brand cameras[Interviews, p. 2,15,20,27,46,49,94]. The reason most cited for choosing a specific brand of dSLR was friends or family owning a compatible camera, which meant the potential for borrowing or exchanging lenses or other equipment with them[Interviews, p. 2,20,49]. The dSLRs they owned can be divided into consumer segment cameras and enthusiast/professional segment cameras: *A*, *B*, *D* and *J* own slightly more affordable, entry-level dSLRs under a retail price of 1000 €, while *C*, *F* and *G* own more expensive, enthusiast-segment cameras that retailed over 1000 €.

Owning a dSLR camera goes hand in hand with owning additional, exchangeable lenses - an option that the participants took advantage of by and large; only *J* does not yet own more than the lens that came with his camera, but is planning on buying one[Interviews, p. 100]. Interestingly, a 50mm fixed-lens is the most popular choice for an additional lens and is owned by 4 out of the 10 interviewees, due to the fact that is one of the cheapest Canon lenses available and well known for its excellent quality despite the very cheap price [Interviews, pp. 15,27,49,51].

Given the overwhelming predominance of dSLR cameras used by the participants, it comes as no surprise that the range of techniques employed by them is as diverse as the technology allows.

First and foremost, macro photography, a photographic technique described by Davies as “ [...] photography where the subject is reproduced at magnification of life size or greater.” [Davies, 2012, p. 4]. Often, this yields fascinating perspectives not visible to the naked eye, and - as pointed out by *B* - has the potential to turn a single square meter of bushes in one’s own garden into a wide space with nigh endless motifs [Interviews, p. 12]. Besides *B*, five of the other participants explored macro photography as well, with various intensity and success [Interviews, pp. 3,4,11,25,35,46,50,92].

Other techniques include long-exposure²⁵ and time-shift photography²⁶, which *A*, *F* and *J* expressed interest in (cf. [Interviews, pp. 2-4,50,93]), and creating panoramas²⁷, a technique pursued by *A*, *B* and *F* (cf. [Interviews, pp. 2,12,48]). Another technique used by *D* is High Dynamic Range photography or HDR, the “[...] merging of multiple pictures of the same scene acquired with three or more different exposure values [...]” [Dini et al., 2013, p. 50], which allows the creation of either more realistic or more artistic images [Interviews, p. 33].

An interesting commonality about the description the interviewees gave for the techniques they used is the frequency of the word *play* (or *playing*) in conjunction with their activities. Every single interviewee used a variant of the German term ‘*spielen*’ (in this context best translated as ‘*playing around with something*’) to describe their approach or behavior when engaging with photography, and the frequency of their use of the word was particularly high when talking about techniques they were trying out. For example, *F* prefaces his activities with the word:

*But I shot a lot of photos, and so I came through playing with the camera and with all these exposure modes and also with the more detailed settings, as far as I could with the automatic mode ... I played around with it, with macro photography, panoramas, that means, I stitched panoramas even back then on my computer - made multiple series of photos, and made panoramas.*²⁸

(Interviewee F, [Interviews, p. 48])

I also uses the term specifically to describe her approach to post-processing photographs with her computer:

²⁵Long-exposure photography describes the process of long shutter opening times, allowing photos to be taken in low-light conditions, but blurring objects that move faster than the shutter speed.

²⁶Time-Shift photography is a technique for which multiple, continuous exposures are being combined into a time lapse movie as single frames.

²⁷Panorama photography refers to combining multiple single exposures into one larger one by stitching them together where their field of view overlaps

²⁸Translated from German by the author, original: “Aber ich hab extrem viele Photos gemacht, und da bin ich halt durchs Spielen mit der Kamera und mit den ganzen Aufnahmemodi und auch mit dem detaillierten Einstellen, soweit ich halt mit dieser Automatik gekommen bin ... hab ich mich herumgespielt, mit Makrophotographie, Panoramas, das heißt, ich hab damals schon Panoramas zusammengebaut auf meinem Computer - mehrere Photoserien gemacht, und Panoramaphotos gemacht.”

[...] and I also played around with post-processing on my computer, meaning, a lot of contrast and different color spectrums...²⁹

(Interviewee I, [Interviews, p. 80])

Knowing that all the participants shared this playful, exploratory approach to photography and new techniques they hadn't tried out, it comes as no surprise that the list of different techniques mentioned by them includes more than the ones mentioned here, but many of those were either only things they tried out once or twice and didn't stick with or hadn't yet tried out, but wanted to. For the different techniques involved in post-processing, refer to section 4.1.

Social Interactions

As described in section 4.1, friends and family played an important role in the interviewee's history with photography. Comparing the interactions families and groups of friends have with other social uses of photography, such as *memory* (cf. Chalfens landmark study on personal photography, *Snapshot Versions of Life*[Chalfen, 1987]), exploring the interviewee's social interactions relating to their expressive photography was an obvious step.

While most of the interviewees (nine out of ten) shared their photos with their family or partners, the number of them that said their family appreciated them for their expressive quality or would engage them and their photography on an artistic level is limited.

A shares the photos he is particularly proud of with his family, but generally feels like he does not get feedback on an artistic level from them, although he does tell a story about a more in-depth discussion with his grandmother, who was fascinated by a long-exposure photograph of the night sky that showed the stars as lines across the sky (due to the earth's rotation). He goes on to add that he does not expect them to engage him on this, either, since he sees photography as an activity he pursues for himself, and not for others - with the exception of his cousin, with whom he sometimes goes on photowalks[Interviews, pp. 3,7]. On the same topic, B shares a story similar to A's about his grandmother, who criticised the photos a photographer made of their wedding for their creative use of depth-of-field, complaining that the background was out of focus. As he adds, he tried to explain that he actually prefers the photos that way and sees this as a beautiful technique, but she was adamant that the pictures had failed their purpose - which he describes literally as *memory*³⁰[Interviews, p. 14]. Other than this story, B also states that he does share good photographs with his wife, who appreciates them for their artistic quality, but does not engage in actual criticism.

²⁹Translated from German by the author, original: “[...] und ich hab mich auch am Computer beim Bearbeiten herumgespielt, also, total viel Kontrast und verschiedene Farbspektren...”

³⁰Translated from German by the author, original: “Erinnerung”

C also mentions showing her photos to her parents, but does not go into detail about whether or not she sees this as an interaction on an artistic level; given her parents vocations (as stated before, they own an advertising agency), a certain appreciation for the visual artistry involved in her photography seems implied, though.[Interviews, p. 21]

D says his family's involvement is limited to his girlfriend having to endure his hobby and accompanying him on his hikes. Similarly, *E* involves her family as subjects and also uses similar expressions of endurance to describe their involvement - as does *G* (who literally uses the word *endure*) when mentioning his girlfriend has to endure his hobby, but isn't involved in any way. It seems interesting that all three of them describe their hobby as more of a burden to their family, even though they are doing so in a joking manner[Interviews, p. 30,42,59]. *E* also mentions that she does not receive serious feedback or criticism from her family, but does appreciate that they still encourage her to pursue her photographic interests. *H* and *I* paint a similar picture: *H* shares specific photos with her sister and *I* feels that her siblings appreciate her photography and encourage her to do more of it, but neither of them engage in discussions about their photos with their siblings. [Interviews, p. 77,85]

Similarly to *A*, *J* shares his photography hobby with a family member, his stepfather, who photographs (expressively) himself, and sometimes shares a photowalk with him:

*How shall I put this - actually, he's the only one that's also interested in photography, I mean, in the details, my [step]father, and when I'm getting the camera out when we're somewhere together, either he's getting his camera, then I'll join in immediately, or the other way round.*³¹

(Interviewee J, [Interviews, p. 99])

When it comes to sharing photos or expressive photographic activities with friends, a different picture emerges. While *A* doesn't mention any friends he shares his photos or hobby with beyond exchanging photos for *memory* purposes, *B* visits the cosplay conventions mentioned earlier with friends[Interviews, p. 11]. *C* and *D* both mention discussing their photographs with friends, including more in depth-discussions about the quality of the shots as well[Interviews, p. 21,30].

E is the participant most involved in shared photographic activities with her friends. Not only does she discuss her photography with her friends to gain different perspectives on it, she also engages in criticism of their work as well, both online and in person. She does mention that it took a long time until her friends started giving her feedback, which she interpreted as a sign that her photos were very bad at the time. As soon as the first one started giving her feedback though, more and more of her friends joined in[Interviews, pp. 42-43].

³¹Translated from German by the author, original: "Wie soll ich sagen - eigentlich ist der einzige, der sich auch für Photographie interessiert, also, Details, mein Vater, und wenn ich die Kamera auspack wenn wir zusammen irgendwo unterwegs sind, entweder er packt die Kamera aus, dann zieh' ich gleich hinterher, oder umgekehrt."

J also shares his photos with his friends, although he doesn't mention discussing them with the recipients on a deeper level. He does feel encouraged to continue, though, particularly by friends who asked him for copies or prints of his photos to use in their office or workplaces[Interviews, p. 99].

Sharing, Feedback, Exhibitions

After exploring who the participants share their photographs with, the questions of how this happens, what they share in particular, what kind of feedback they get and what importance they put on receiving said feedback was the next area of interest.

Only *A* and *G* did *not* state directly or implicitly that sharing was an important part of their photographic experience. Although both share some of their photography on deviantART, both mention that they do not get a lot of feedback (in the form of comments, for instance), and that the feedback they do get is mostly positive encouragement in the form of or questions about the technical process, but not in-depth commentary or criticism on an artistic level[Interviews, p. 8,61].

Sharing their artwork is important to the other interviewees. *C* sees sharing her photography online as '*exciting*'³², and expects the feedback she can gain from different people as a means to develop artistically [Interviews, p. 21]. An important aspect here is the differentiation she makes between sharing her photos through prints, exhibitions or just hanging them in her home and sharing them online: While she points out that she had plenty of opportunities to share her art - be it photographs or paintings/drawings in school - with her family and friends, she states that she never saw that as a priority and created art rather for herself, until she had the opportunity to share her art online (via deviantART) and reach a more heterogenous group of people than her family and peers.

D has more diverse experience with sharing his photography: Besides uploading his photos to deviantART, he also had the opportunity to present some of his photography at the TU Wien, at an exhibition organized by the student representatives for the electrical engineering students³³, but explains that he was underwhelmed by the turnout and decided to pass on another opportunity for a similar exhibit due to his disappointment[Interviews, p. 30]. Still, this has not deterred him from pursuing photography: although he does state that sharing (online or offline) is important to him, he still would continue with his photography if he didn't have any opportunity to share his works[Interviews, p. 27]. *G* also has the opportunity to exhibit his photos, partly through amateur photographing competitions he partakes in if "[...] *the topic interests me [...]*"³⁴ or private exhibitions he organizes for his works [Interviews, p. 60].

Drawing on this, the hypothetical question 'If you couldn't share your photos online, would you still continue photographing?' brought to light that sharing is an even more

³²Translated from German by the author, original: "[...] das Spannende [...]"

³³"Fachschaft Elektrotechnik" or "FET", cf. <http://www.fet.at>

³⁴Translated from German by the author, original: "[...] wenn mir das Thema einfach irgendwie zusagt [...]"

integral part of the photography experience for *E*, *F*, *H*, *I* and *J*: *E*, for instance, states that she would try to organize exhibitions of her photos if she couldn't share them online, but is quick to add that she would choose the photos she would exhibit more carefully or apply higher standards to them; *I* points out that she wants to, at the very least, reach *some* people with her art (to hear their feedback), and *J* explains that his motivation to photograph is that he “[...] *wants to show people how [...] it looked best for me [...]*”³⁵, referring to capturing the beauty of a motif or scene he observes[Interviews, pp. 44, 82, 94]. *B* agrees with *J* on sharing being a motivational factor insofar as he wouldn't post-process as many photos as he does if he couldn't share them online[Interviews, p. 16].

A unifying factor seems to be an aversion to social media features similar to Facebook's 'Like' button or deviantART's 'Favorites': Many of the interviewees clarified that feedback meant more for them than collecting 'Likes' or 'Favorites', suggesting a certain disdain for the notion that the value of their photos could be measured with a metric as simple as this (cf. [Interviews, pp 11,14,82]) - essentially supporting the criticism Ramanathan and Dreiling formulate in their analysis of social media metrics[Ramanathan and Dreiling, 2013]. *I* sums up her stance on this:

*[...] or, for me, the number of 'Like' isn't... I mean, it isn't important to me, this isn't why I do it. I mean, that's not why I upload things. It's not that important to me to reach a massive audience, but to reach [some] people...*³⁶ (Interviewee I, [Interviews, p. 82])

Their disdain for feedback in the form of these social tokens of appreciation is equally reflected in their need for qualitative feedback on their work. Congruent with the fact that, generally, their families and real-life friends did not interact with them on their photography in terms of discussion and qualitative feedback, they seek out the very same interactions online: *H* states that she is happy about any comment she gets through deviantART's comment system, and *I* declares it would be her goal to inspire someone on deviantART to write a longer amount of feedback for one of her uploaded photographs[Interviews, pp. 72, 83]

Professional Photography

Although the design of this study explicitly excluded professional photographers, the implicit assumption that the line between purely non-professional and professional photographer is a blurry one was supported by the interviewee's descriptions. Asked if they would consider themselves professional photographers, none of the interviewees would

³⁵Translated from German by the author, original: “[...] ich will's den Leuten auch zeigen, wie's [...] für mich am Besten ausgesehen hat [...]”

³⁶Translated from German by the author, original: “[...] oder für mich ist auch die Anzahl an 'Likes' nicht ... also, sie ist für mich nicht wichtig, es geht mir nicht darum. Also, deswegen lade ich nicht Sachen 'rauf. Also, es ist mir nicht wichtig, ein massives Publikum zu erreichen, aber Menschen zu erreichen...”

declare themselves as such, but during the rest of the interview, 3 of them stated that they had already earned money with photography: *B* has photographed a confirmation ceremony for an acquaintance as well as a neurosurgeon congress held in Vienna, *D* sold a photo he took for a publishing house as the title image for a book on physics, and *G* even pursued a career as a professional (analog) photographer in the 1990s [Interviews, pp. 18,31,58]. Of these three, only *G* is hopeful that his analog photography will yield some income eventually and merge with his professional life more, the others are not considering pursuing their photography as a professional career (although *B* would possibly consider a career as professional photographer, but states that he is doubtful the effort would be worth the possible income he could make).

The other interviewees are united in not considering becoming professional photographers. *A* points out that he wouldn't work as a professional contract photographer since he doesn't like the pressure of having to deliver what the clients want (as opposed to what he would consider good photography)[Interviews, p. 9]. *D* thinks his motivation to photograph in general would suffer if he knew he would be doing it as a job, and sees his photography as a tool to balance his professional and private life [Interviews, p. 30]. *E* says "*Currently I'm just having fun and that's the most important thing [...]*"³⁷, but does state that she is still unsure if photography should become "*[...] something more serious [...]*"³⁸ [Interviews, p. 36]. *F* admits he had been thinking about becoming a professional photographer in the past, largely based on the fact that he spent so much time on his photographic activities, but hasn't given it more thought or serious consideration [Interviews, p. 55]. Finally, *I* states he hasn't considered contract photography as a job because she would not like the self-promotion and representation aspect a professional photography career entails [Interviews, p. 86].

Online and Offline Tools

When it comes to sharing, a multitude of websites and smartphone apps exist to help users manipulate or post-process their photographs and/or share them with their peers. This section discusses the interviewees interaction with photo-sharing websites in general and deviantART in particular, as well as any other online or offline tools (like, for instance, smartphone apps).

On the topic of websites, applications or other tools they use for sharing, only *E* stated that she would share art pieces on websites besides deviantART: *E* uses Facebook³⁹ and Flickr⁴⁰ to share her artistic photography, and sometimes uses her photos to illustrate covers of short stories she writes for writing competitions, which she also considers sharing [Interviews, p. 43]. While some of the other interviewees would use these and other platforms to share photographs as well, they all pointed out that they would

³⁷Translated from German by the author, original: "Im Moment macht's mir einfach Spaß [...]"

³⁸Translated from German by the author, original: "[...] was ernsteres [...]"

³⁹<http://www.facebook.com>

⁴⁰<http://www.flickr.com>

not share photos they considered art pieces through these channels, but only photos taken under social use of *memory* or *communication*.

Two other websites that concentrate on sharing of artistic photography specifically were mentioned: *500px*⁴¹ and *ArtLimited*⁴². *A* investigated *500px*, but decided against creating an account there, and *G* used to frequent *ArtLimited*, but deleted his account when the website “[...] *had moved in a direction that I didn’t like at all [...]*”⁴³ [Interviews, p. 8,60].

Besides websites mainly targeted at photo-sharing, forums or online bulletin boards are frequent sources of information (particularly on technical topics) for the interviewees. Most of them only use these forums passively, i.e. search them and read posts on topics they are interested in, but do not write messages themselves. Only *H* mentions a forum that she used actively, called *Animix*⁴⁴ - although this was a topical forum about Anime (Japanese comics and graphic novels) and had no connection to her photographic activities [Interviews, pp. 67]. Lastly, *A* is the only interviewee that frequently uses news-websites and aggregators specializing in news about photography (specifically, he mentions *CanonRumors*⁴⁵ and *PetaPixel*⁴⁶) [Interviews, p. 4].

Smartphone Applications

As gathered in section 4.1 focusing on *smartphone* use, 5 of the 10 interviewees reported using their smartphone camera with varying frequency. Part of the tool set available to photographers today, should they opt to use a smartphone, are photo-sharing and -manipulation apps such as *Instagram*⁴⁷ or *Hipstamatic*⁴⁸. *Instagram* has been a particularly successful example of such an app, due to its large user base - 15 million people alone one year after it’s launch in 2010 - and as such is the focus of some research in the field of HCI. As Hochman and Schwartz describe it,

“[...] Instagram is a mobile location-based social network application that offers its users a way to take pictures, apply different manipulation tools (‘filters’) to transform the appearance of an image [...], and share it instantly with the user’s friends on the application itself or through other social networking sites such as Facebook, Foursquare, Twitter, etc.”

(Hochman and Schwartz, [Hochman and Schwartz, 2012, p. 1])

⁴¹<http://www.500px.com>

⁴²<http://www.artlimited.net>

⁴³Translated from German by the author, original: “[...] hat sich allerdings in eine Richtung entwickelt, die mir überhaupt nicht gefällt [...]”

⁴⁴<http://www.animix.de>, now defunct

⁴⁵<http://www.canonrumors.com/>

⁴⁶<http://petapixel.com/>

⁴⁷<https://instagram.com/>

⁴⁸<http://hipstamatic.com/>

An important characteristic compared to other smartphone photography apps is the automatic *geotagging* - the enhancement of image meta-data by recording the location that the photo was taken - as well as smooth integration of social networking sites, allowing to share photos immediately and effortlessly after taking them. Given the aforementioned ‘filter’ system that allows some control of the final look of the photograph, it would seem reasonable to suspect that some personal photographers who focus on self-expression through their photography would take advantage of such an application.

Contrary to these expectations, the majority of interviewees did not know or use Instagram or similar applications. Only *B*, *I* and *J* have any experience with *Instagram* or similar applications; of those, only *I* actually uses *Instagram* somewhat regularly, but none of them classify this as self-expressive photography or art and rather use it for *communication* or *memory* [Interviews, pp. 12,82,100]. In fact, *B*, *D*, *E*, *G*, *I* and *J* all share their negative feelings towards post-processing photographs through the use of ‘filters’ on a smartphone: *D*, for instance, criticizes bad user interfaces (due to the limitations of the smartphone platform), and *E*, *G* and *I* agree that these photos are not ‘artistic’ [Interviews, p. 47,63,80,101]. *E* goes as far as describing the only use of filters like the ones *Instagram* provides as “[...] so that the photo doesn’t look as abysmal as it really looks.”⁴⁹ [Interviews, p. 47]. *G* provides the harshest critique of Instagram and its competitors, summing up the interviewee’s shared opinions:

*Well, those [applications] are simply lifestyle products to me, that has ... it’s absolutely legitimate and such, it’s all well and good, and it’s fun and makes people happy, and that’s what it should, and that’s even good somehow, but... that is lifestyle, but not art. That is design, but not art. That is advertisement, but not art.*⁵⁰ (Interviewee G, [Interviews, p. 63])

deviantART

Among the different online and offline tools that found mention in the interviews, deviantART takes, self-evidently, a special role: All interviewees are more or less active on deviantART, and have been sharing their photography on the website with others. Beyond that, the use of deviantART varies wildly and is as diverse as the interviewee’s other practices.

The first question regarding deviantART was, as part of the inquiry into their personal narrative of photography, the way in which they first came into contact with the

⁴⁹Translated from German by the author, original: “[...] dass das Photo nicht ganz so grottenschlecht aussieht wie es aussieht”

⁵⁰Translated from German by the author, original: “Also, das sind für mich einfach auch Lifestyleprodukte dann, das hat ... ist absolut legitim oder so, ist ja auch schön, und es macht den Leuten Spass und Freude, und das sollte es auch, und das ist auch irgendwie gut, aber ... es ist Lifestyle und nicht Kunst. Das ist Design und nicht Kunst. Das ist Werbung und nicht Kunst.”

website. *A*, *D*, *F*, *G* and *H* all stumbled upon deviantART via some other website; in the case of *A* and *D*, it was through a web search for photography tutorials and inspiration, *F* was specifically researching websites with a focus on landscape photography (and found what he searched for in deviantART's category system), *G* followed a link in a technical forum, and *H* was referred to deviantART after photos of her drawings had been rejected for submission by the above-mentioned, now defunct, Anime forum *AniMix* [Interviews, pp. 3,27,49,58,67]. Some of them mention signing up right away, while others took some time to determine if deviantART was worth their attention - in the case of *G* even a year after first visiting the website [Interviews, p. 58]. Others like *E* and *I*, were invited to join by friends that were already using the website [Interviews, pp. 37, 80-81]. For *E* in particular, this was a slow process of familiarization: She describes her initial feelings as being deterred by the amounts of artistic nude photography that is being uploaded to the website and seemed to jump at her every time she visited, but after researching deviantART in terms of respectability and reputation, she decided to give it a try.

Tallying up the seniority of their accounts on the site, there are those that have been members for 7 or more years (in the case of *I*, since she was in 15), as opposed to, for instance, *E*, who describes herself as 'very young' on deviantART, having been a member for about 2 to 3 months at the time of the interview [Interviews, pp. 37,67].

As described in Section 2.4, deviantART offers a wide array of possibilities for interaction with the site, both as passive observers and active participants. The first and maybe most basic use of deviantART mentioned by *B* and *F*, was simply as an online photo storage with sharing capabilities [Interviews, pp. 11,53,]. This does not mean that *B* or *F* would only use deviantART as, essentially, a free web-space for their photographs - a service that would be provided by other websites as well: *B*'s description of how he found a community of shared interest (Cosplaying) which he engages with is one example of that.

One of the more common uses of the website is the *comment* feature: Only *E* does not explicitly mention commenting on other people's submissions to the site. For the others, commenting is not always the same activity: while some state they will only comment positive things or statements of encouragement (*A*, *B*, *G*, *J*), others write more in-depth comments or criticism (for instance, *H*) [Interviews, pp. 8,14,61,96,74].

Staying on the topic of messages and comments on deviantART, but looking at the other direction, interviewees were asked about the comments they receive - if they received comments, if so, how many, and how important these comments were to them. Most of them mention receiving comments that show their appreciation for their submissions, although none of them receive an exorbitant amount of messages. Typically, these comments are very short and consist only in simple statements - "good photograph", "well done"⁵¹ - as *F* points out, "[...] *no real critique* [...]"⁵² [Interviews, pp. 14,53].

⁵¹Translated from German by the author, original: "Super Photo, Cool gemacht"

⁵²Translated from German by the author, original: "[...] keine richtige Kritik [...]"

The other type of comments that the participants report to receive are questions about the photograph - both technical in nature (ie. ‘How did you create this photograph?’) and topical (‘Where was this shot?’) [Interviews, p. 14]. Normally, they will answer these comments as well - *D*, for instance, describes his behavior as follows:

*I mean, I almost always answer comments, except if they are really inane...
[...] it's like this, it's just polite to answer those [comments], if someone
already made the effort to comment on those [photographs] ...*⁵³

(Interviewee D, [Interviews, p. 28])

Commenting and interaction with others on deviantART as done by the participants covers a whole spectrum of familiarity, from interacting with complete strangers to talking with people they consider friends. *C*, for instance, describes how a group of (online) friends developed that she was part of, with whom she would write back and forth, but implies that this also held her back from discovering new art and interacting with new people - leading to her trying to actively search out new submissions by people who had yet to receive some recognition on deviantART (be it in the form of comments or *favorites* or even just page views)[Interviews, p. 22]. She explains her reasoning for this as such:

*But I thought, with some photos that stood out, also in particular if those
were people, that were still new, or that hadn't gotten a lot of comments,
well, I thought, I want to give something back to them, because I experienced
the same in the beginning - you throw yourself and your work out into the
public and it's nice, when something comes back, and it's encouraging.*⁵⁴

(Interviewee C, [Interviews, p. 22])

The idea of ‘giving back’ is something *E* mentions as well. During her maternity leave, she posted a message to a group called *Share and Care*, offering her services in post-processing other peoples photographs, both in an artistic or even distorting way and to simply improve on photographic imperfections[Interviews, p. 40]. Given the bad quality of photos she was sent and the unrealistic expectations she saw herself confronted with, she decided to rescind her offer after investing significant time in this.

A common issue that affected a few of the participants is the sheer amount of art in general and photographs in particular that is uploaded to deviantART every day. *B* estimates that he receives about 300 to 400 photos every day through his subscription

⁵³Translated from German by the author, original: “Also, auf Kommentare antworte ich eigentlich fast immer, außer es ist wirklich Schwachsinn... [...] ... das ist einfach so, gehört zur Höflichkeit, dass man das beantwortet, wenn sich schon wer die Mühe macht, das er das kommentiert...”

⁵⁴Translated from German by the author, original: “Aber ich hab dann schon bei Photos, die rausgestochen sind, auch vor allem wenn das Leute waren, die noch neu waren, oder die noch nicht viele Kommentare gekriegt haben, da hab ich mir dann gedacht, denen mochte ich auch was geben, weil es ist mir am Anfang auch so gegangen, Du wirfst Dich da quasi mal so in die Öffentlichkeit und Dein Werk, und es ist schön, wenn was zurückkommt, und es bestärkt.”

to certain topical groups, and criticizes the low quality of many of them - in particular, *Work-in-Progress* photos of costumes that he finds neither particularly beautiful nor interesting [Interviews, p. 14]. Similarly, *C* complains about the amount of Anime and Manga art (drawings, paintings, vector art) submitted to deviantART, calling much of it “junk”⁵⁵ [Interviews, p. 22]. Going a step beyond, *G*’s verdict of deviantART’s average quality is even harsher:

*deviantART’s problem is that, in a small group that you’re interested in, you can find people that you’re interested in, you can find artwork that you’re interested in, and so on, but by and large, deviantART is... really crappy. I mean, when you go the the start page, it’ll pop your eyes out, you’ll just find stuff by teenies for teenies. That’s absolutely legitimate, mind you, it just has nothing to do with art, it’s just another Facebook. Or you’ll find pornography, on a very bad amateur level, and that honestly doesn’t interest me either. And art you have to search for. If you find it, which isn’t easy... there are incredible amounts of art. But there is so much much much much more non-art there. [...] there’s really great stuff there, but they are drowned out by so much other stuff, it’s really difficult.*⁵⁶

(Interviewee G, [Interviews, p. 60])

Given this statement, it comes as no surprise that *G* doesn’t spend much time on deviantART on a regular basis, but describes his engagement as more of an ebb and flow, depending on the seasons [Interviews, p. 61].

Not all interviewees criticize deviantART for this: Both *F* and *J* mention that they appreciate the diversity of art forms the website hosts, and *H* submits other art forms than photography to the website herself [Interviews, pp. 48-49, 96, 67-68].

A final, unifying aspect of deviantART the participants share is it’s ability to provide inspiration for their own artistic expression, through different techniques, perspectives, and tutorials. *A*, for instance, describes how he specifically sought out new ideas on deviantART and then tried to recreate them himself, and *C* explains how she would download the submissions she marked as *favorites* and cycles them as her desktop background for inspiration [Interviews, p. 4,22]. While not using the term ‘Inspiration’ specifically, each of the other participants also tells a story or mentions an interaction with the site which implicitly describes an inspirational moment.

⁵⁵Translated from German by the author, original: “Schrott”

⁵⁶Translated from German by the author, original: “deviantART hat das Problem dass man sich innerhalb von einem sehr kleinen Gruppe, die einen interessiert, findet man Leute, die einen interessieren, findet man die Arbeiten, die einen interessieren, und so weiter, aber im Großen und Ganzen ist deviantART... echt scheisse. Ja, wirklich. Also, wenn Du auf die Startseite einsteigst, da haut’s Dir die Augen raus, du findest da halt einfach Zeugs von Teenies für Teenies. Ist absolut legitim, passt, es hat nur nix mit Kunst zu tun, es ist einfach ein Facebook. Oder Du findest Pornographie, auf einem sehr schlechten Amateurlevel, das interessiert mich ehrlich gesagt auch nicht. Und die Kunst muss man suchen. Wenn man sie findet, was aber nicht so leicht ist... es gibt wahnsinning viel Kunst. Nur es gibt noch viel viel viel viel mehr wahnsinning viel Nicht-Kunst dort. [...] es gibt wirklich tolle Sachen dort, die gehen so unter unter allem anderen, dass es wirklich schwer ist.”

Reflection

Two aspects of personal photography are highly personal and open to definition. They can be exemplified by the questions ‘*What makes a photograph a good photograph?*’ and ‘*Is your photography art?*’. At first seemingly similar, these two questions aim at more than a simple description of quality, but are meant to give the interviewees an opportunity to share their own personal perspective on both their own and other people’s photographic creations.

Out of the 10 participants, the most common criteria mentioned was what can best be described as an *emotional connection*. *A* describes it as “[...] *being touched by a picture*”⁵⁷, *I* uses the phrase “[...] *when it speaks to me*”⁵⁸, as does *F* [Interviews, pp. 5,87,56]. *E*, asked when a photograph is ‘good’, immediately answers “*When it’s alive*.”⁵⁹, while *C* looks for photographs that surprise her, even through a small detail, and let her see the world through someone else’s eyes [Interviews, pp. 47,23]. Similarly, *D* expects good photography to be able to relay something to the viewer:

*What I like in photos is, when they transport something, either a mood [or atmosphere], say, for instance a landscape photograph, so that it somehow... is emotionally appealing, on that level, or the content, say, for instance, concept photography, there it is particularly evident that this transports something, a message if you will, something conveyed [...]*⁶⁰

(Interviewee D, [Interviews, p. 32])

Comparing these descriptions of immediate, emotional reactions to photographs with Barthes’ concept of *punctum* as described in section 2.3, the similarities are obvious. For instance, both define an element of surprise when encountering a *good* photograph, Barthes’ notion of the *punctum* actively engaging the viewer is congruent with *E*’s description of a photo being ‘*alive*’, and even *D*’s explanation that a good photograph transports a message or a feeling can fit into Barthes’ categories of *rare*, *the numen*, *the prowess*, *contortions of technique* and *lucky find* - be it an intentional message (like in the case of a *contortions of technique*’s element of surprise) or an unintentional one (for instance, the *lucky find*).

The second most commonly mentioned aspects were the importance of *motif* and *composition*. *B* and *F* believe that the motif can make or break a photo, even before other aspects like technical quality or composition come into play [Interviews, p. 16, 56]. *C* and *D* mention *composition* as more important: *C*, for instance, puts an emphasis on trying to align architectural lines and shapes in her photography and *D* describes how he

⁵⁷Translated from German by the author, original: “[...] wenn es mich berührt”

⁵⁸Translated from German by the author, original: “[...] was mich anspricht”

⁵⁹Translated from German by the author, original: “Wenn’s lebt.”

⁶⁰Translated from German by the author, original: “[...] was mir gefällt an Bildern ist, wenn sie etwas transportieren, also entweder eine Stimmung, sagen wir beim Landschaftsbild, dass das irgendwie ... emotional ansprechend wirkt, auf der Ebene, oder einen Inhalt, sagen wir bei Konzeptphotographie, grad da ist es aufgelegt [...] dass das eben etwas, eine Message transportiert, etwas vermittelt [...]”

made the transition from subconsciously being drawn to photographs with interesting compositions to consciously employing techniques like following the *golden ratio* in his own photography [Interviews, p. 24,32]. It is worth mentioning that the approach of how to achieve good *composition* of these aspects varies; while *D* obviously sees composition as a technical issue that can be solved by employing certain techniques, *C* points out that she does not try to follow any rules or techniques at all (she also specifically mentions the *golden ratio*), but rather follows her intuition when deciding on how to frame a subject.

On the topic of technical aspects, all the participants that actually mentioned the technical quality of a photograph (focus, sharpness, color), saw this more as auxiliary devices more than core features of good photographs themselves. For *J*, focus and sharpness are aspects that help frame the subject the way he wants to, similarly, *H* chooses which photos to keep and which to discard based on how well their cropping and angle present the motif [Interviews, pp. 73,101]. Contrary to that, *C*, *E*, *F* and *I* state that the technical quality of a photograph is not a formal criterion for them to discard a photo as bad; *F* mentions that technical imperfections can be used as an artistic element as well (specifically, random noise or fog), and *I* generally does not put that much emphasis on technical aspects when judging the quality of art [Interviews, p. 56,87].

G represents an outlier in all these; for him, the important aspect is more if a photograph is art or not. As he puts it:

*Well, there are so many good pictures that one can't fit it all under one definition. I think, it's art if it's in an artistic context. And then it can only be good art or bad art, but I believe, art is being defined by it's context nowadays.*⁶¹ (Interviewee G, [Interviews, p. 63])

Moving to the topic of whether or not their photographs are art, most of the interviewees would not call their works art per se. *C*, *E* and *I*, while not explicitly defining themselves as artists, implicitly referred to their work as art or artistic, but did not state what they consider to be art or artistic in detail. *G* states that he isn't sure if his work is art, but mentions that he thinks a lot of people create art that is "made for their attic"⁶² - his own work is focused more on the technical and artisanal process than on creating art [Interviews, p. 63]. *A* feels other people must decide if his work is art and that he himself can not, but he does try to let his artistic ambitions run free [Interviews, p. 10] Similarly, *J* also would not call his photography art, but concedes that other people might - for him, the focus of his process lies in having fun, rather than creating art. Finally, *H* describes her photos as 'hobby-art', and also bases her definition on the fact that her works are appreciated by other people (specifically, on deviantART) [Interviews, p. 79].

⁶¹Translated from German by the author, original: "Naja, es gibt so viele gute Bilder dass man das nicht mit einer Definition erschlagen kann. Ich glaub, Kunst ist es, wenns im Kunstkontext ist. Und dann kann's nur gute Kunst oder schlechte Kunst sein, aber ich glaube, Kunst wird definiert durch den Kontext heutzutage."

⁶²Translated from German by the author, original: "[...] gemacht für einen Dachboden [...]"

Narrative Analysis

As outlined in section 3.3, an analysis of (micro-)narratives and their use of orientational and evaluational clauses created by the interviewees was conducted in addition to the qualitative interview analysis approach detailed above. This section aims to present the findings of this analysis that exceed or enhance the ones presented in the previous sections.

Orientalional Clauses

The horizontal analysis of orientational clauses allows insights into the different aspects of the narratives' context and their relative, subjective importance for the different participants.

Comparing the orientational clauses used by the interviewees as part of their *personal history* narrative, the importance of family becomes immediately evident - the interviewees' parents are mentioned frequently as influential in the process of discovering photography. Besides a family member's active role, the clauses also utilize descriptive language to express family member's personal preferences or sensitivities in relation to photography - *E*, for instance, mentions her mother's disdain for school pictures of her daughter due to the fact that she would never smile for the camera [Interviews, p. 34].

A second aspect of these clauses is the way technological artifacts in general and cameras in particular are mentioned. Even those participants that would specifically mention details about their current camera(s), including brand, model, or specifications, largely omit this information when mentioning their first cameras, but rather use more general descriptions than going into technical details (cf. for instance [Interviews, p. 93]).

Thirdly, focusing on how the participants mention locations as part of their personal narrative, it would not be unreasonable to expect more ornate descriptions of what the places looked like or why the motifs they presented were aesthetically interesting. Contrary to this assumption, locations - while representing an important part of the personal narrative - found mention mainly as a means to situate what was happening *geographically* rather than aesthetically: *H*, for instance, refers to Groß-Mörbisch in the southern part of Burgenland as the first location that compelled her to take photos “[...] because she liked it so much [...]”⁶³, and goes on to describe the town as small and quiet, but fails to mention any details of why she liked it from a photographic standpoint. Similarly, *G* mentions repeatedly returning to the same location to perfect a photo, but does not elaborate at all on that location's significance in terms of aesthetics [Interviews, p. 59]. This leaves one with the impression that the *where* or the *how* are more important references for their memory than the *what* [Interviews, p. 66].

Generally, the question after the interviewee's personal narratives elicited hesitation at first. While the transcript does not reflect this aspect specifically, it is worth noting that the majority of the interviewees seemed to be almost startled by the question, with

⁶³Translated from German by the author, original: “[...] weil mir der Ort so gut gefallen hat [...]”

H stating outright that she had never thought about that before. This leads one to believe that photography is not necessarily seen as a continuous aspect of the interviewees' lives and thus isn't as consciously present as a single aspect, but rather as a conglomerate of different aspects of their photographic activity [Interviews, p. 66].

The orientational clauses attributed to other topics (for instance, *Practice* or *Techniques*) did not yield any new results compared to the qualitative analysis presented before.

Evaluational Clauses

Moving on to the evaluational clauses extracted, the focus shifts towards expressions of opinion. Analyzing these clauses, the heterogeneity of opinions expressed as part of narratives becomes obvious. A wide array of aspects was covered, ranging from the self-critical in regard to photographic practice, skill and output, personal preferences of motive, aesthetics and photographic process to philosophical reflection on their own photographic experience. Due to this heterogeneity, not many overlapping opinions or micro-narrative clauses could be found. Still, some of them are worth mentioning in detail, so they have not been covered by the previous analysis.

F explores the role of influential personalities in regard to photography, by sharing the story of how, after being bad at high-school math, his choice of elective physics courses later on led him to analog photography and photo development due to a good teacher, who thus inspired him to enjoy natural sciences in general [Interviews, p. 52].

A is repeatedly reflecting on his practices in a self-critical way. By admitting deficiencies in portrait photography or the ratio of *meaningful* to *meaningless*⁶⁴ photos, he shows a reflecting stance on his photographic practices and potential for improvement [Interviews, pp. 4,5]. Similarly, *E* is questioning whether or not she took too many photos of her child as a toddler, and tells the story of how she decided to discard most of them for lack of meaning [Interviews, p. 39].

On the topic of appreciating art, *C* philosophizes that knowing the artist's technique and approach can eliminate a certain awe in the face of art, an observation she first made when she and her cousin visited an exposé on Helnwein, a hyper-realistic painter: while for her this state of awe was greatly reduced because she knew the technique Helnwein uses, her cousin saw every exhibit as a "riddle"⁶⁵ [Interviews, p. 25].

Finally, most of the evaluational clauses share a certain fluidity in the response that suggests that the interviewees had been thinking about the stories they told or the opinions they expressed before. To name just one example, *G*'s thoughts on smartphone applications that apply a faux analog effect to photographs (for instance, *Instagram*), which he deems to be *lifestyle* products rather than means of artistic expression, are clearly an issue that he had contemplated before, influencing his opinion on the nature

⁶⁴Translated from German by the author, original: "bedeutungslos"

⁶⁵Translated from German by the author, original: "Rätsel"

of art itself [Interviews, p. 62].

The remaining extracted evaluational clauses did not expand beyond the already described results referenced in the earlier sections.

4.2 Limitations & Outlook

While the study presented in this thesis has elicited a comparably thick description (cf. 4.1, [Geertz, 1994]), its scope is, of course, limited and presents opportunities for follow-up research to explore certain aspects in a more detailed manner.

The study is limited in scope first and foremost through the demographics of its interviewees. Given the participants' ethnicities and origins (which are all situated in either central Europe or Austria in particular), a wider range of personal photographers might produce more and different results. For instance, it is not unreasonable to assume that the financial status of the participants is comparably homogeneous, and that a personal photographer from a different country, culture and financial background may have different experiences in their photographic practice. Secondly, the selection process through which the participants were found is somewhat biased as it presumes their involvement and interest in the deviantART website - a comparative study with probands that are using personal photography for self-expression, but do not use deviantART (or similar sites), might elicit different results when it comes to sharing and feedback.

Furthermore, the specific cultural background of Austria and the German language might influence certain perceptions of photography as well as the participants' descriptions of their practices, thus biasing the narrative analysis. Here, a comparative study in a different language might produce additional insights into the personal photographer's history with photography and practices as well. Generally, the narratives were short and not necessarily fully formed - an issue that could have been resolved by reserving more time for the interviews or scheduling follow-up interviews that would have given the participants more time to reflect on the stories they want to share.

Besides these limitations, the exploratory nature of this study opens up additional fields of inquiry that could be worth investigating. As an example, the participants' use of deviantART and their involvement in community-building activities online and offline would be a promising field to research, which would allow for a more in-depth look at the intersection of online sharing platforms and art.

Additionally, the *critique* feature of deviantART opens up a few interesting questions: Given that the interviewees lamented a lack of higher quality feedback on their work, it would seem plausible that the critique feature would remedy that at least partly, yet none of the interviewees mentioned having received critiques or writing any themselves. An inquiry into the overall performance of the feature and the (future) intentions of deviantART Inc. regarding the critique feature and possibly a collaborative design study

aimed at improving the feature with the help of users longing for high-quality feedback could be worthwhile endeavours.

In addition to more specific research questions, a different methodological approach could shed light on other aspects of personal photography: organizing and analyzing a group discussion of personal photographers could allow deeper insight into their interactions with each other in the context of photography.

4.3 Conclusio

The goal of this thesis is to explore and situate current practices of (digital) personal photography in the greater context of technological and sociological developments in a time of rapid progress in those fields. This section sums up the findings and tries to intersect the empirical results with the theoretical aspects presented in chapter 2.

Digital Photography: Technological Paths

Recalling Sarvas et al., their analysis of the history of photography left the question of dominant technologies in the context of digital photography and the *digital path* unanswered, arguing that we are still in an era of ferment. The interviewee's wide variety of practices and choices in terms of equipment support this statement - neither mobile photography nor DSLR cameras or any other type of technology seems to be dominating, at least not in the area of self-expressive or artistic photography for consumers. Although a certain number of interviewees communicated their disdain for mobile phone photography, this opinion wasn't shared by others, who happily used mobile phones for the express purpose of artistic photography. Even though only one participant specifically mentions using mobile phone applications that support the use of filters to manipulate and post-process the photos taken, it is far from certain to say that this particular technology can not or will not play a larger role in the future of mobile photography - a notion that seems to be supported by the fact that large companies like Apple only recently added this feature to their native camera application on iOS[Britton, 2014].

One specific aspect of the *Kodak path* in particular and photography in general has undergone significant changes: the separation of private and public photography. Digital photography and the extreme ease of distribution of photographs have all but removed the difference between public and private photography. While this development has been observed for the three social uses of *communication*, *memory* and, particularly obvious, *self-presentation*, the social use of *self-expression* illustrates how much the lines between the public and the private are being blurred as well. As the participants described, one and the same photo might end up printed and displayed in one's own flat, handed out and sent to relatives and shared or even get sold on webpages like deviantART, taking on different meaning and function depending on context. This blurring of boundaries between the public and the private also makes another point unabundantly clear: the

different social uses of photography are not discreet, distinct properties of a photograph or photographic process at all, but a fluctuating field of overlapping function and meaning, highly dependent on context and intent.

With these and other emergent transformations of digital photography, there are aspects of previous technological paths that still remain present in the practices of personal photographers as of now. Analog photography, for instance, with all its tediousness and financial downsides, still exerts a certain influence on current practice: from the interest and value some of the participants placed in the technical aspects of photography or their awareness and utilization of principles of aesthetics that are as valid now as they were with analog photography to the way the result of their photographic activity still ends up in a frame or as a gift for family and friends. What has changed, though, is the *necessity* of these aspects: whereas an analog photographer *had* to deal with a certain amount of more or less complicated camera technologies, with physical artifacts like rolls of film, negatives and prints, the digital photographer can *choose* to focus on technique over technology or to create prints and physical artifacts, to name just two examples. This freedom of choice has lowered the entry threshold for personal photography in all aspects of its social use, but specifically so in expressive personal photography as well.

Perceptions of Expressive Personal Photography

In the course of analyzing the qualitative interviews, certain insights into the participants' perception of photography on a more theoretical level could be gained and contextualized within the theoretical framework presented in chapter 2.3. The first and most prominent piece of information relates to the way the interviewees perceive and consume photographs, both their own and those taken by others. Interestingly, Barthes' notion of *studium* and *punctum* carries as much weight within the context of current digital photography as it did at the time Barthes wrote *Camera Lucida*. The majority of participants answered the question 'What makes a photograph a good photograph?' with some variety of the phrase 'it speaks to me', which relates quite closely to Barthes' descriptions of *punctum*. The second aspect, *studium* or the contextual information about the content that is depicted, is largely left out in their descriptions, and is replaced by more technical or aesthetic aspects of photos, such as color, composition, focus or sharpness.

In terms of Barthes' work on the ontological nature of photographs, he calls the physical, analog photograph *invisible* - a notion that is even more obvious when applied to digital photographs, which are truly invisible as objects and can only be shown in representative form (be it on a computer screen or as a print, a facsimile). What makes a digital photograph a photograph is, essentially, still just the digital representation of analog information, the *message without a code*, as Barthes puts it. The interviewee's many different ways of contextualizing their work within the circle of their peers, on the Internet and in their homes as prints, are what makes these photos *visible*.

The Personal Photographer as Homo Ludens

Vilém Flusser's sociological tractatus on a philosophy of photography resonates well with the interviewee's descriptions of their photographic practices. Flusser's description likens the *apparatus* that produces images (in his time, an analog camera) to a computer, an approach that has become only more relevant given that modern digital cameras are, in essence, specialized computing devices or parts of more general computing devices. Flusser's description is even more spot on when it comes to his observations on how these devices offer a limited set of programs that define the boundaries of what images they can produce, reducing the photographer from a worker to a player - from *Homo Faber* to *Homo Ludens*. The participant's remarks support this wholeheartedly; be it in the parts of the interview focusing on their education in terms of photography or on their general practices, 'playing around' with their devices is an ever-present aspect, and so are the limitations imposed on them by the *programs* their photographic devices support (which influences their positive or negative stance towards, for instance, smartphone photography as opposed to dSLR photography).

Flusser's remarks on the definition of *amateur* and *true* photographer, on the other hand, do not ring as true anymore. Where, in his words, amateur photographers produce *redundant* images, because they are not interested in the complexity of their cameras and are in danger of remaining 'illiterate' in their perception of photographs, the interviewees have proven quite profoundly that they are, in Flusser's sense, *true photographers*. None of the interviewees leave the impression of having grown numb to photographs or accepting them without question as true representations of reality - on the contrary, they seem to be quite overtly critical of both their own and the photographic work of others, and are able to provide quite detailed analyses of the photos they produce and consume. Given the fact that some of the interviewees use smartphones or snapshot cameras with only a very limited potential for tinkering and customization, and still are far from photographically *illiterate*, it seems wrong to equate the complexity of the apparatus and their interest in this complexity with the skill, interest or photographic literacy of self-expressive personal photographers.

Perhaps the Internet represents the missing link between Flusser's musings and current image perception for the participants. Photographic literacy, as Flusser describes it, is something that can be learned not only by being interested in the technical aspects of photography and the apparatus, but also through critical exchange, sharing and feedback - opportunities the Internet in general and websites like deviantART in particular provide in a way that was just outside of Flusser's scope of imagination at the time he wrote *Towards a Philosophy of Photography*.

Flusser's warnings on the topic of being overrun by a flood of techno-images has, at least partly, become a reality. As some participants opined, deviantART's sheer size in terms of submissions presents its own problems. While lowering the entry threshold to share and critique on (photographic and other) art, some the interviewees also felt that deviantART lowered the bar for what was being considered art as well as what consti-

tutes artistic exchange. While most of them stated quite clearly that they chose very carefully what to upload and share, they also complained that many others didn't; furthermore, while some participants stated that they would welcome more serious critique and discussion of their photographic expression, they agreed that deviantART might not be the best place for an exchange of this kind.

The Evolution of Practices

Affordable digital photography brought with it not only an explosion in terms of the number of photographs in existence, but also an increase in photographic practices. As mentioned before, the limitations imposed by analog photography either do not exist anymore or have almost been completely mitigated. This not only expanded the number of people that could pursue photography as an interest, it also gave them the opportunity to do *more* than just 'snap a picture'. As an analog photographer, photographic practice generally included purchasing a camera and film, learning how to operate that camera, taking pictures and having them developed before showing them to others in their physical form - the Kodak process, in essence. To go beyond that, photographers had to invest a great amount of time and money - by setting up their own darkroom, for instance, or by organizing public events like exhibitions to showcase their work. Some activities, like photo-manipulation or the creation of mixed media art with photography, was an even more involved process, due to the difficulties in obtaining other material than the one created by themselves. In contrast, digital photography allows for all these and more, for a fraction of the price, and with little or no effort or special education. The availability and feasibility of a wide array of practices and activities linked with personal photography has enabled the participants of this study to express themselves on many more levels than would have been possible 25 years ago - the most obvious example being one participant's failed attempt at becoming a professional photographer during the 1990s, and his successful re-entry into the world of digital photography a decade later.

Two aspects of this paradigm shift deserve specific mention: *sharing* and *education*. Both are, of course, a consequence of the Internet and technological developments within it. First, sharing has become a placeholder for a not one but many practices, including the publishing, distribution, marketing, discussion and rating of content. For the personal photographer in general and this study's participants in particular, this meant that previously hard to attain preconditions of artistic expression were now within reach, either for free or very cheaply. Even more so, they didn't even have to be sought out or researched - sharing photographs has become such an integral part of their daily lives, they only needed to make the connection between the photos they were already taking and art or artistic expression, and were presented (by means of the Internet) with a multitude of options, ideas and tools to follow that connection; as many of the interviewees state, they found deviantART more by accident than by structured research: they stumbled upon it. Once they started, the practices encompassed by the term *sharing* came to them naturally as features of the tools they used, sometimes without them explicitly

realizing.

Similarly, in the analog age, *educating* oneself on certain topics of photography involved taking specific courses, buying and reading books, and trial-and-error approaches, all three of which were expensive and involved a lot of effort as well. The availability of webpages providing the same and better educational opportunities has all but eliminated the need for books on photography, and while some of the participants mentioned having attended some form of course or class to learn about photography, the majority of them did not have to. Even trial-and-error as an approach to learning has undergone significant improvements due to the shift to digital photography: a failed attempt at a photo taken with an analog camera cost money and time, whereas making a mistake with a digital camera can be undone literally by the push of a button.

One constant seems to remain with personal photography despite its evolution from analog to digital: the importance and relevance of family. As can be seen in the narratives presented by the participants, family plays a role in many aspects of their photographic practice. Starting with how they first got into contact with photography in general and ending at sharing, exhibiting and gifting the results of their work now, the photographer's family's involvement varies, but is present in one form or the other for all of them. What seems to be less common is the interviewee's interaction with their families in terms of artistic photography - through feedback, exhibitions or shared activities. The combination of photography and family seems to be limited to the social uses of *communication*, *self-presentation* and *memory*, perhaps due to the fact that photography as a form of self-expression wasn't possible (or at least less common) when the participants grew up.

Closing remarks

It has never been easier to get involved with photography in general, and consequentially, with artistic photography in particular. The advent of digital photography has given rise to photography as self-expression not just for the few, but for anyone that owns a camera or similar device. As this thesis has shown, the actual practice of artistic personal photography covers a wide range of techniques and activities, and involves more than just the person taking the photographs or their closest peers. Through sharing platforms like deviantART, which are geared towards artistic expression (including and arguably focusing on photography in particular), the possible audience for the results of these activities has been increased manifold, blurring the line between *private* and *public* photography. As a consequence, the struggle for recognition has changed as well. Where the challenge used to be to become one of the few people being able to practice artistic photography at all, the challenge now seems to be to get noticed in an ever-growing crowd of people pursuing similar activities. With this in mind, it must be noted that the participant's stories and narratives show that recognition is but one of the many reasons why they pursue artistic photography - but certainly not the most important one.

While digital photography may have leveled the playing field, it has not brought revolutionary change in the way people value photographs or completely changed their practices; rather, it has opened up possibilities that allow for more personal, more varied forms of self-expression through photography. Furthermore, at least as of now, it has not eliminated analog photography in practice or in theory, but incorporated it into today's photographic practice. Similarly, theories of photography, as exemplified by Barthes and Flusser, have not lost their relevance due to the rise of digital photography at all, although certain paradigms will need to be explored further and adapted to cover the realm of personal photography and artistic self-expression.

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Note on Interview Transcripts

References to the transcripts can be found throughout this thesis: [Interviews: p. XX]. The transcripts themselves are available in printed form at the *Institute for Design & Assessment of Technology* of the *Technical University of Vienna*⁶⁶ or in digital form from the author.

⁶⁶<http://igw.tuwien.ac.at/>

Appendix

A.1 Request for Interview

Hi!

Mein Name ist Florian Cech, und ich schreibe gerade an meiner Diplomarbeit an der TU Wien zum Thema 'Personal Photography & Art'. Ich kontaktiere Dich, weil Du Mitglied in der Gruppe DevWien bist, und ich auf der Suche nach PhotographInnen bin, die sich von mir interviewen lassen würden!

Ich versuche im Rahmen der Arbeit zu beleuchten, welche Rolle ästhetische Gesichtspunkte bei privater (also nicht kommerzieller) Photographie spielen, sowie welche Einflüsse Social Software wie etwa deviantART oder Technologien wie Digitalphotographie haben. Dazu führe ich gerade eine Reihe von qualitativen Interviews durch, die jeweils ca. 30 Minuten in Anspruch nehmen, und wollte fragen, ob Du vielleicht Zeit und Lust dazu hättest! Qualitatives Interview heisst in diesem Fall, dass es keinen Fragebogen oder Ähnliches gibt, sondern dass das Interview eher wie ein offenes Gespräch geführt wird - es geht um Deine Erfahrungen mit Photographie und Kunst!

Ich bin in Wien zu Hause, bin aber natürlich mobil und kann zu beliebigen Treffpunkten kommen (sofern nicht gerade in Tirol & Vorarlberg :-)), und würde Dich dazu als kleinen Anreiz einfach auf einen Kaffee in ein Kaffeehaus einladen. Das Interview selbst würde per Diktaphon aufgezeichnet und dann transkribiert werden. Als Informatiker lege ich selbst natürlich hohen Stellenwert auf Privatsphäre, daher werden in der Arbeit selbstverständlich alle gesammelten Daten anonymisiert und vertraulich behandelt.

Zu meiner Person: Ich bin 30 Jahre alt, studiere wie erwähnt (Medien)informatik an der TU Wien, und bin selbst seit 8 Jahren aktiv auf deviantART. Photographisch interessiert mich am meisten Landschaftsphotographie, aber auch Portraits und Analogphotographie

sind mir mittlerweile ans Herz gewachsen...

Wenn Du Dir vorstellen könntest, ein Interview zu geben, würde ich mich riesig über eine Notiz auf deviantART oder eine Email an loki@fsinf.at freuen. Selbstverständlich ist das gänzlich unverbindlich; gerne beantworte ich alle Fragen, die sich im vorhinein stellen könnten per Email, Deviant-Art Note, Skype, Jabber, etc.

Ich hoffe, ich war jetzt nicht zu aufdringlich mit dieser Anfrage, und danke schon mal im voraus für Deine Zeit!

Liebe Grüsse,

Florian



FAKULTÄT
FÜR INFORMATIK
Faculty of Informatics

Einverständniserklärung

DIPLOMARBEIT

Personal Photography and Art

DIPLOMAND

Bakk.Tech. Florian Cech

INSTITUT

Institut für Gestaltungs- und
Wirkungsforschung, TU Wien

BETREUER

Ao.Univ.Prof. Dr.phil. Gerald Steinhardt

FORSCHUNGSPROJEKT

Diplomarbeit: Personal Photography and Art (Arbeitstitel)

INTERVIEWER

Florian Cech

Hiermit erkläre ich mich dazu bereit, an einem Interview im Rahmen der oben genannten Diplomarbeit teilzunehmen. Ich bin über Ziel und Verlauf des Projektes informiert worden, insbesondere über die Tatsache, daß das Interview zu Forschungszwecken aufgezeichnet, sowie die aufgezeichneten Daten danach in anonymisiert in Schriftform gebracht werden. Ich erkläre mich damit einverstanden, daß die Ergebnisse des Interviews (sowohl die Aufnahmen als auch die verschriftlichte Form) für die Diplomarbeit analysiert werden, sowie daß Ausschnitte des Interviews in der Arbeit wörtlich zitiert werden.

Mir wurde außerdem versichert, daß alle personenrelevanten Daten anonymisiert behandelt werden.

Ich habe jederzeit und ohne Angabe von Gründen und ohne, daß mir daraus Nachteile entsehen können, das Recht, meine Teilnahme an der Studie sowie alle aus meiner Mitwirkung entstandenen Daten zurückzuziehen.

Wien, am

Name, Unterschrift