Lost Memories:

Exploring Childhood Amnesia and Nostalgia

Through Autoethnographic Research

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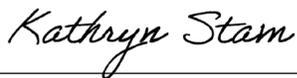

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I. ABSTRACT

Memory, especially at a young age, is unstable. Memories can easily be remapped and misremembered. Generally, memory retention follows a predictable pattern, known as the reminiscence bump, and memory retention reaches its peak around twenty years old. While memory retention does increase exponentially as a child ages, there is a tendency for early childhood memories to vanish - a phenomenon known formally as childhood amnesia.

Photographs and videos can act as memory aids to assist recall, but can lead to misremembering. People also view photographs and videos (especially physical versions such as photo albums) as memory storage devices, and often experience a great deal of nostalgia when flipping through and reminiscing. However, just as society experienced a shift from analogue to digital film and video, users shifted their intentions of photography from memory to communication.

To further explore these topics I performed extensive autoethnographic research. In the hopes of shedding light on lost or forgotten memories and to better understand personal nostalgia, I had twenty-eight rolls of undeveloped childhood film developed, which I then personally scanned. Additionally, I digitally transferred and watched eighty-six never-before-seen childhood home video cassettes. Using both written, photo, and video footage-based context clues, I assembled a video timeline to represent my lost memories.

Video Link: https://youtu.be/7OCfjgm1YkU

TABLE OF CONTENTS

II. LITERATURE REVIEW

PROJECT QUESTIONS:

- What is the role of nostalgia when viewing personal found photos and videos?
- How can discovering personal found film photos and videos reshape memory and personal identities?
- How might these ideas function in the creation of a personal project using found film?

QUESTIONS FOR CONSIDERATION:

- Why does childhood amnesia occur, and when does it begin? How do our minds choose the memories that remain?
- What is the connection between memory and photography?

NOSTALGIA

Nostalgia and Reminiscences

Nostalgia, as defined by Stern, is "an emotional state in which an individual yearns for an idealized or sanitized version of an earlier time period" (11). Nostalgia can affect people of all ages, but is typically associated with growing old. Reminiscing and nostalgia often go hand in hand, and a passing thought can quickly morph into a reminiscing session. If accompanied by the laughter and giggles of lifelong family and friends, these trips down memory lane can last for hours. Nostalgia and reminiscing bring feelings of joy and internal warmth as we watch our personalized memory reels in our heads through rose colored glasses and omit the bad while preserving the good.

It is no coincidence that we preserve and value certain memories over others. As children enter high school or college, they are told by their parents that "these will be the best years of

your life." The parent's reflection of their own high school and college years as the best years of their lives correlates with the "reminiscence bump" and can be seen in Figure 1. As Draaisma illustrates in the graph below, most early memories date back to 3-4 years of age. Ages 20-25 indicate a dramatic, sharp increase in memory retention, but is then followed by a dramatic drop off. Another uptick appears again in the later years, known as the recency effect. To a certain degree, the exact location of the memory peak and the width of the reminiscence bump varies from person to person, but the overall shape remains the same (Draaisma 60).
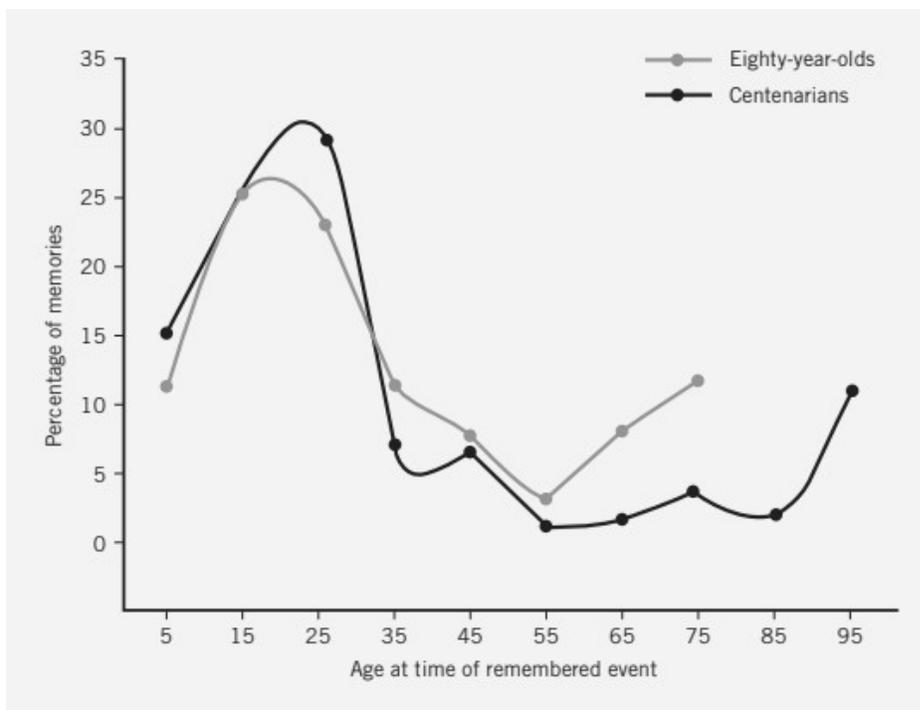
Figure 1: The reminiscence effect in people aged eighty and one hundred (Draaisma 59).

There have been numerous theories and explanations proposed to rationalize the reminiscence bump phenomenon. Draaisma explains one theory through a biological lens. The graph of the reminiscence bump can be equated with the ripening and decay of our bodies. Memory and concentration are at its peak in our late childhood, teen years, and early adulthood. From an evolutionary standpoint, this ripening is parallelled with our reproductive needs, for the brain is at its optimal condition to find a partner, reproduce, and care for its offspring (Draisma

62). The theory poses the question of the elderly's purpose though, as they are far beyond their biological prime. Draaisma refers to Nancy Mergler and Michael Goldstein for their perspective on the ageing of humans: ageing is its own phase of human development and should not be seen purely as deterioration or decline (63). Like other phases of human life, this phase has its own ensemble of characteristics. As we age, we transition to more narrative means for the passing of information, and reminiscing can assist elders in passing on their accumulated knowledge and skills to the younger generation. In turn, this can help preserve the cohesiveness and continuity of a group identity (Draaisma 63).

Social Media and Nostalgia

The invention and consumption of social media has brought an abundance of nostalgic feelings to the forefront of people's lives. The very nature of social media is to connect with lifelong friends while sharing digital versions of what was once traditional photo albums, and these digital versions become digital archives of our lives. Social media (such as Facebook) then force-feeds its users back their same memories every year on the date and is a guilty pleasure for many. Bartholeyns refers to this easily accessible, on-demand-style of nostalgia as "self induced nostalgia," in contrast to the traditional version of nostalgia which would take a person by surprise (55). Davlos et al.'s article "'The Good Old Days,'" investigates nostalgic Facebook posts. This study in particular is interesting because of the archival nature of social media — everything is on display and accessible later. In this case, nostalgia and reminiscing did not have to be investigated in the moment, but rather the natural, unprompted nostalgic posts could be evaluated later on. Davalos et al. found that during the study period (125 days), each user made 1.11 nostalgic posts and used a pattern of recurring key words. The top two occurring words were *love* and *life.* The top five words associated with "down memory lane" were *love, people,*

great, walk, and *life;* and the top five words associated with "nostalgic" were *love, mother, wife, friend,* and *life* (86). Other findings were the patterns of language used in reminiscent posts. The frequency of top key phrases were: flashback (22%), "good old days" (17%), "nostalgic" (14%), "those were the days" (13%), and "down memory lane" (8%) (87). Davalos et al. also found that general posts emitted a more spur-of-the-moment feeling, whereas nostalgic posts frequently implied deeper reflection, discussion, and often used significantly more words per post. Nostalgic posts were clearly more thought out, whereas general posts were more focused on greetings and venting of emotions. Nostalgic posts also were more likely to encourage users to use past, present, and future tenses, compared to that of general posts (Davalos et al. 89-90). Overall, Davalos et al. found that experiencing nostalgia and reminiscing forces us to slow down, process, and think, and can help us to evaluate and contextualize a moment in the present.

MEMORY

Defining Memory

Memory is an individual, personal experience. In his article "What Memory Is," Klein defines memory from a psychological perspective. He writes that memory is "any state or process that results from the sequential stages of encoding, storage, and retrieval" and can be experienced in every mental state (Klein 1). Notable definitions of memory can be dated back several centuries, and Klein quotes both Edridge-Green and Von Feinaigle's poetic definitions. Edridge-Green defines memory as "'the process by means of which the external world and ideas are retained for use on future occasions,'" and Von Feinagle sees memory as "'that faculty that enables us to treasure up, and preserve for future use, the knowledge we acquire'" (Klein 2). The belief of memory can be traced as far back as ancient Greece, and Aristotle's *De memoria* is

thought to be the first systematic treatment of memory (Klein 8). It should come as no surprise that Aristotle's interpretation of memory has transcended millenia. Klein interprets Aristotle's work by writing, "...for Aristotle, a primary feature of memory is the recollective act (in Aristotle's terms, memory is what we now call storage, while recollection maps to retrieval), which *always* makes reference to the past. In contrast, sensations and perception refer to the present" (8).

Mapping and Storing of Memories

In her article, "Representing the Past: Memory Traces and the Causal Theory of Memory," Robins approaches memory from the scientific perspective. The Causal Theory of Memory (CTM) explains that "remembering a particular past event requires a causal connection between that event and its subsequent representation in memory" (Robins 2994). Past events leave memory traces, which are defined by Robins as, "a representation of the past event, providing a link that is informational as well as causal" (2994). These memory traces are personal and unique to the individual. They are representations of our past events that produce a mental state of remembering. Memories are stored in a series of patterns and connections that function similarly to a code, and Robins illustrates this network of memory code through a series of events and objects in brackets. For example, the memory of a birthday party would be <party><cake><birthday><gifts><bicycle> (3005). Similar stored memories will share more in common with the preceding brackets, but will branch off and may not include proceeding brackets. For example, another party may have had cake, but the gift was not a bicycle. In sum, the more similar the events, the more overlap in the patterns, and the more similar the event, the higher the chance for blending of memories.

Memories require encoding and retrieval from storage. Klein elaborates on the topic of memory content and mental states by arguing that the content *must* be the subject of recollective experience to be considered a memory. Retrieval may produce a memory, but also produces mental states beyond the memory, typically of emotions such as belief, thought, desire, etc. (5).

Discussing and dissecting the phenomena of memory not only requires the psychological and scientific lens, but also the philosophical lens. Past experiences do not always result in a memory, but Klein presents a potential logical fallacy for when they do. Memories are a mental state, and by definition memories must originate from a past experience. When experiencing a memory, these past experiences are connected to a person's present mental state, and therefore when remembering a memory, the present mental state *is* a memory.

Memory is not reliable, especially with constant relearning. The process of relearning is learn something, forget it, then learn it again. Eventually, representations of the event produced by remembering and that produced by the representation of relearning begin to blur, and our memories are often skewed as a result of relearning. Memory is also only one way in which information can be preserved. Memories can live on in our minds or through the minds of others who learned about the event. However, other ways of storing memories are more physical and tangible, such as books, time capsules, and video. We often see physical reminders as truth — for better or for worse. These sources provide cues and prompts to assist our memories. Events that would have long been forgotten can be easily recalled. However, Robins warns of the danger of physical and tangible objects to encourage relearning, or the reacquisition of forgotten memories, due to their availability combined with the frailty of memory (Robins 2997).

CHILDHOOD AMNESIA

Childhood Amnesia Theory

Childhood memories are especially peculiar, for we often only remember fragments. Sigmund Freud was interested in childhood and infantile amnesia. His interest was not only the lack of ability for adults to recall memories from childhood, but the ability to accidentally store and recall unimportant moments rather than milestones and affective impressions of childhood, combined with the tendency for these indifferent memories to follow us through our lives in the back of our heads (Freud 59-60). In 1899, Freud coined the term *screen memories* (also known as concealing memories) to refer to these memories that were seemingly substitutions for other significant impressions. Freud believed these screen memories had an associative relation to repressed thought (Freud 58). In Chapter IV, "Childhood and Concealing Memories" of his book *The Psychopathology of Everyday Life,* Freud elaborates on screen memories and their purpose. Freud claims, "the concealing memory may be connected with the impression it conceals, not only through its contents, but also through contiguity of time." (59). Freud interprets this as a failure of remembering. Ordinarily, our memory should be able to correctly reproduce an important event, but instead we are left with the substitute or remnants. Freud also touches on the depth of how far back our memories reach. This of course varies on an individual basis, but some (according to Freud) have traced their first memories back to six months old, while others have no recollection of life before the end of the sixth, seventh, or eighth years of life (61). Freud then follows up with the deep question of "But what connection is there between these variations in the behavior of childhood reminiscences, and what significance may be ascribed to them?" and laments on the fact that we too easily accept childhood amnesia as it is, and do not ponder why it

is that we so easily forfeit our intellectual accomplishments and complicated emotions that children are capable of (61).

Childhood Amnesia Studies

Interested in childhood amnesia, Peterson et al. conducted a study that spanned across eight years and led to key findings. Their research challenged that of Freud's, claiming that most mundane events are forgotten. Instead, big emotional events are more memorable, such as hurricanes and injuries requiring medical treatments even if they occured before five years of age (Peterson et al. e520). In a previous study conducted in part by Peterson, children and adolescents were tasked with explaining their three earliest memories, and two years later were asked the same question. The study found that only 7% of 4-5-year-olds and 13% of 6-7-year-olds showed consistency in their earliest memories in both interviews. This contrasted the 39% of the 12-13-year-olds' recall consistency (Peterson et al. e521) . The researchers also noted the extremely skewed proportion of recallability between younger and older children - either spontaneously or cued. Overall, they found older children's memory to be more stable, as the former 4-5-year-olds were able to recall only 48% of their memories, whereas the former 8-9-year-olds recalled 88%, and 12-13-year-olds recalled all but one (Peterson et al. e521).

Peterson et al.'s eight year study followed 37 participants, divided into three age groups: thirteen 4-5-year olds, twelve 6-7 year-olds, and twelve 8-9-year olds. Participants were told to recall their earliest memory, then were given the same prompt at the beginning of their 2 and 8 year follow-ups. The researchers were particularly interested in first memories, for they could be viewed as the starting point for a continuous sense of self (e533). However, Peterson et al. found this starting point to be extremely unstable with very little consistency in the children's ability to summon the same earliest memory across all interviews. Of the former 6-7-year old group, only

two were able to spontaneously recall the same earliest memory. Three participants from the

8-9-year old group were able to recall the same earliest memory, and not a single participant of

the former 4-5-year olds were able to do so. Even more fascinating, almost half of children of the

youngest group were unable to recall any pieces of information regarding their previously stated

earliest memory, even with cues (Peterson et al. e526). Overall, Peterson et al. found that there

was a constant rate of forgetting before ages 6-7, and the ability for children to forget is

mysterious and differs greatly from adult forgetting.

PHOTOGRAPHY AND MEMORY

Storage of Memories in Photos

Accessible digital photography, especially camera phones, has led to an accelerated use

of photography as a means for the shaping of our self identities and maintenance of social

relationships. However, photography has long been a tool that has aided in the construction of

personal and group memory. This can be traced back to 1888 when Kodak's advertising pushed

the idea of photography as a memory aid for private and home viewings (Gye 280).

Memory retention and maintenance can be traced to emotion and reminders, such as

photos or family discussion, and the higher the quality of the memory reports the stronger the

encoding (Peterson e522). There is no doubt about the societal and personal value placed on

photographs as the holders of memories, with some viewing the photographs *as* their memories.

In her research findings from her ethnographic research, Harrison refers to an Australian

respondent reflecting on a house fire: "'You've lost your home, the family, your pets are safe, but

you've lost your photographs; it's very traumatic for people to lose all their memories'. You thus

take your family, pets, and photographs in that order" (103). Pre-digital, the memories *lived* in

that photo box or photo album. Today, we have the luxury of carrying around a camera everywhere with seemingly limitless storage. This device is used to take photos of everything: moments, meals, and perhaps most interestingly, things of temporal significance. Photos are taken of receipts and tracking labels as temporary information storage, with no intention of saving them beyond their intended use. Twenty years ago, one would not dare waste a precious 1/24 or 1/36 of a roll of film on something so trivial. This can be considered a form of "artificial memory," similar to that of writing. Bate refers to this as an extension of the human ability to remember, as we no longer have to "carry everything around" (244). Bate's claim can be likened to carrying the weight of emotional and physical memories — the physical being the tracking labels and the emotional being life's moments. By off-loading memories into photographs, they can be called back at will without clogging the conscious mind, providing a much-needed breath as we temporarily forget (Bate 252).

The accessibility and sharing of photographs has also led to a similar treatment of would-be moments and memories. One, we take multiple photographs until we land on the best version — an affordance of the vast storage of hard drives and the cloud, but also as a result of social media pressure. We take ten photographs of a moment and so long as one is perfect, the other nine photos are of little significance. Second is the advent of temporary sharing, such as through disappearing photos on Snapchat and timed "stories" on Instagram, Snapchat, and Facebook. With accessible digital photography, our primary intentions of photographs have shifted from long-term memory to communication, or in the case of the tracking labels, temporary memory.

A big question lingers when considering family photo albums and the storage of memories of moments in photographs. We know these are, to an extent, artificial and constructed

memories, but what is the effect on our actual human memory? Photography as a tool for memory gives us an opportunity to re-write our personal histories. There is an ability here to somewhat pick and choose what is worth remembering. (However, it is important to remember the cost associated with film photography. Preserving memories was not always in the budget.) We can also tweak and fine-tune our memories as we see fit, either by composing the photos in the moment, cutting out people we wish to forget, or by throwing out photographs all-together in the hopes of purging a memory. Bate questions this by writing, "What relationship do such images, as memory devices have to actual human memory? Is it that these Artificial Memories create uncertainty *for* the human faculty of memory, simply because they are 'memories' that we have not necessarily experienced, or were experienced in a different way? Is it that as the human faculty of memory internalizes photographic images we no longer trust our memory as our own?" (251). Similarly, we have the ability to curate our memories by choosing the moments we take photos of. As Dijck points out, photographs are an invitation to reflect on the past, but they also force us to remember our younger selves in a certain way. In turn, this coerces a constant reassessing of the past and remodeling of our self-image (63). Furthermore, unless the photos are candid, these memories are staged. Bartholeyns refers to this as a type of reflective nostalgia, which is staged and generated. He gives the example of a mother taking the first day of school photos. By orchestrating these nostalgic moments, the mother experiences nostalgia not from the act of the child going to school, but from seeing the photo at a later time (Bartholeyns 60). The photographs intentionally taken for photo albums or for posting on the carefully-curated social media feed are set-ups for future nostalgia, whether intentional or not. Though the intention may be for communication or identity, they are posted with the semi-conscious knowing that they will inevitably be seen in the memories each year.

FILM-TO-DIGITAL SHIFT AND SOCIETAL CHANGES

Initial Shift

Personal photography, once it became accessible to the public, has had a social and cultural impact. By the early 1970s, most American and western European households owned a camera, and households were twice as likely to own a camera if they had children (Dijck 60). With these cameras, families were able to record precious moments associated with life and aging, but also for the affirmation of identity. That is, taking photos of the moments *everyone* documents - birthdays, holidays, family gatherings, etc. - were acts of proof.

The analogue to digital societal transition felt almost sudden with little overlap of the two technological eras. Often, when a family obtained a digital device, film was quickly abandoned. Of course, there was a small transition period, for trust in the digital devices needed to be built before the shift could be made entirely. However, many continued to favor the tangibility of film and the photo albums it yielded. This pivotal shift differed from household to household, but societally it can be pinpointed to 2003, when digital camera sales overtook analogue sales for the first time in the US (Figure 2) (Runde et al. 13). Further, film sales were at its peak in 2000 with 786 million units sold, but by 2006 that number had dropped to 204 million (Runde et al. 13).
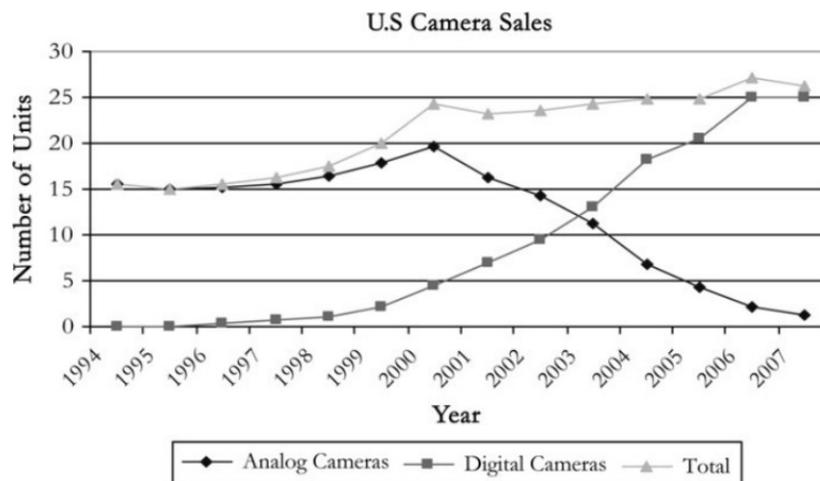

Figure 2: US camera sales (millions) (qtd. in Runde et al. 14).

Though cameras have greatly progressed since the early 2000s, modern digital models still preserve many classic features. For example, DSLRs include a viewfinder and most cameras have an electronic shutter noise. The way in which we use the digital camera has evolved, however. Runde et al. highlights responses from their user interviews, and one user describes a family reunion in which they brought a camera, laptop, and printer. Within ten minutes of taking photos, they were flying out of the printer and in the hands of relatives, making photography a "much more social phenomenon" (Runde et al. 19). Although this was possible with instant cameras such as Polaroids, it was much less practical. Photos produced by Polaroids were one-offs, could not be viewed before being printed, and were very costly.

Camera Phones and Social Media

The camera phone has assisted in the creation of the separate entity that is social media. Users can distribute photos instantly to friends and family in a shared virtual space. Through photography, users are connected, but without the intimacy naturally spawned from gathering around family photo albums. Another shift caused by digital imaging and social media is the way the ordinary world is viewed. We often go through our daily lives viewing the world through a metaphorical photographic lens and think "Wow, this would make an interesting photo!" and snap away at the mundane while simultaneously seeing its beauty. Of course, photographers have long viewed the world like so, but in the age of social media, everyone is a photographer. However, this shared virtual space that is flooded with aesthetic photos once again comes at the cost of intimacy. The digital space removes us from the tangible, heartfelt experience of album flipping with close friends and family as the viewer produces a narrative experience. As a result of their non-physical nature and widespread distribution, personal digital photography has moved away from the autobiographical remembering that it once was in the analogue world. This is not

to say that memory has been eradicated entirely, but rather it has been repurposed through widespread distribution. The role of personal photography has indeed shifted to communication and identity. These functions were present before, but were secondary to memory. Additionally, older generations still continue to use photography as a memory tool (and will use social media to share these memories and reminiscence), but younger generations, such as teenagers and young adults, are more likely to use cameras for conversation and peer-group building (Dijck 61).

As mentioned earlier, photographs have shifted towards being a means of quick communication and peer bonding in multiple formats, such as showing someone a photo on our phones, sending text messages with pictures, posting to social media feeds, and posting to social media stories. However, it can also be argued that the non-verbal communication brought about by sharing and posting to digital media has degraded relationships and friendships. Unfortunately, the more connected we are, the less connected we are, as in, we do not feel the need to write or call if all of our life updates are on display.

Disposable Photos

The fleeting existence of in-the-moment photographs has caused a shift in our attitude towards photos. A photo is much less valuable and precious than it once was, and often are considered disposable, temporary reminders rather than permanent memory keepsakes. This can often be seen in text messages with pictures and disappearing photos such as direct Snapchats or social media "stories." Dijck compares this to postcards and quotes Lehtonen et al, "Cameraphone photography gives rise to a cultural form reminiscent of the old-fashioned postcard: snapshots with a few words attached that are mostly values as ritual signs of (re)connection (Lehtonen et al., 2002). Like postcards, camera phone pictures are meant to be

thrown away after they are received" (Dijck 62). For those who treasure our photographs as physical embodiments of their memory, this can be a hard pill to swallow.

Storage and Organization

The storage and organization of film vs. digital photographs is also worth mentioning. Although film photograph prints and negatives sometimes would end up in a box with intentions to be organized another day, it does not compare to the abyss that is our digital collections. In the beginnings of digital photography, these photographs may have been stored on a CD, now collecting dust in some unknown location. Even if a long lost CD is found, many computers no longer have a built in disc drive. If the image files are on the computer, they may simply be dumped, unorganized, and unnamed. Digital photos can easily be lost in a sea of virtual files, much like a book placed in the wrong location in a library. Another concern is the possible corruption of files, rendering them unretrievable. With the invention of smartphones and cloud storage though, often many people no longer even store their photos on their computers. Instead, tens of thousands of images are in chronological order in their camera rolls. People today have an immense volume of photos, which is a sharp contrast to the world of analogue. Keightley and Pickering interviewed several people about the film to analogue shift, and one participant, a grandmother, discusses the amount of photos she has taken of her grandchildren (and that her children take of their children), but feels guilty for not taking the same amount of photos of her own children in the past. Another participant explained the increased casual attitudes towards digital photographs. Five or six photos of the same moment are almost always taken, allowing for a more relaxed and natural emotional and physical atmosphere (Keightley and Pickering 581-582). Posed and staged photographs are still taken, but are taken in conjunction with the increase in candid photographs.

Additionally, digital photographs are considered highly vulnerable. While film photographs are susceptible to the house fire (and the accompanying anxiety of the potential house fire) they will transcend generations if they survive the current owner's life. Several participants of Van House's study expected their digital images to die with them, for "no one would search their computers for images to preserve" (Van House 129). This concern and expectation may stem from digital photographs feeling less "real" than film photos and less of an object of personal possession, thus seemingly less important. However, it may also stem from the sheer quantity of images that a person will accumulate in their digital archive throughout their lifetime.

Nostalgic Culture Towards Film

Now that digital has been around for at least two decades and has become the default, there has been a shift to favor film photographs once again. This natural disposition towards film may be fueled by nostalgia, but overall it is often agreed that digital photographs can feel "cold and disembodied," whereas film photos feel more "alive" (Bartholeyns 51). In the last decade there has been a trend in replicating old photographs, perhaps in the hopes of evoking warm nostalgic feelings to contrast the coldness of digital photography. The rise of Instagram in the early 2010s also brought with it the rise of filters that mimicked the film photograph aesthetic. Included in the original filter options was even a filter titled "1977." The popularity of these filters dropped off as the 2010s progressed, but in the late 2010s another star was born: the Huji Cam app, which once again brought back mock-film aesthetics to the forefront of social media. Meant to mimic a 1998 disposable film camera, users are forced to wait a moment after their photo is taken. The photo then goes into the app's built in camera roll, labeled "lab." The user does not see the photo immediately, unlike the traditional camera app. Additionally, photos taken

with the Huji Cam app are given random light leaks, a discoloration filter to mimic disposable

film cameras, and a time stamp of the accurate day and month, but with '98 as the year.

Bartholeyns explains that by partaking in these filters we receive a flash of nostalgia triggered by

an ingrown reflex to take vintage photos (62). Bartholeyns raises a concern though: "It is no

longer the past that is injected into the present but the present that is projected back into the past.

The contemporary is being destroyed for the sake of a more intimate, less impersonal

perception" (66). Does this apply to those who choose to take film or instant photographs? Or is

Bartholeyns' concern only for those who apply filters to the digital photographs?

Figure 3: An example of a Huji Cam app photo

<u>CONCLUSION</u>

Looking at memory in a broader context, the reminiscence bump shows the curve of

human remembering. Memories first appear between the ages of 3-4 years old. Ages 20-25

indicate a dramatic, sharp increase in memory retention, which is then followed by a dramatic

drop off. The curve swoops up again later in life due to the recency effect. First memories and

the starting point of our continuous sense of self are unstable. As humans age, they forget pivotal

moments and accomplishments from their childhoods, and often instead remember seemingly unrelated fragments of memories. Childhood amnesia cannot be explained, but data can pinpoint where forgetting generally begins to taper off, as well as the likelihood for a child of a certain age to forget.

Because most memories fall into the 20-25 age range, these years tend to be the most nostalgic. Nostalgia and reminiscing allow people to slow down and view their past in a more reflective manner, as made evident by social media nostalgia studies. However, memory is not reliable. Memories can blur due to the brain's methods of coding and cataloguing memories, but also as a result of relearning memories. Memories can be relearned through photos, and there is a tendency to stage photos and omit aspects later on to assist in the positive remembering of our self-identities. However, it is too soon to comment on the relationship between memory digital photography technologies, as they have only been in the public's hands for two decades.

The shift from analogue to digital corresponds with a shift in how people use photography. Today, personal photography is predominantly used as a method for communication, either by physically showing someone a photo on a phone, by sharing the photo to social media, or by sending a text message with a picture. Compared to analogue photography, digital can be seen as more disposable and less tangible. While communication, self and group-identity were always an underlying aspect of photography, they were second to photography's memory function. One cannot say that personal photography changed as a result of digital technologies, but rather as a result of societal shift that incorporates more than just digital photography.

III. METHODS

INTRODUCTION

Most people born in the mid 1990s had a childhood that feels like another world compared to the world we know today. In a sense, it *was* a different world. We witnessed technology explode as we grew alongside it. Those early childhood years were captured entirely in analogue: film cameras, photo albums, and home videos on cassette tapes littered shelves and cabinets. Our youth was on the cusp of the digital era, accompanied by the soundtrack of dial-up internet. Our teen years, on the other hand, were entirely digital. This was not a gradual change. Rather, it was almost sudden. For many, the instant one's household acquired a digital camera was the moment they became a member of a digital society. Digital archives of (un)organized files and folders on the family computer quickly replaced traditional family photo albums. For some, including myself, this meant the physical remnants of childhood memories were forgotten and abandoned as bags of undeveloped film accumulated — both too expensive and too inconvenient to develop. Home videos were stored away in a cabinet, never to be watched again.

I have strong memories of middle school and high school, though this correlates with a few theories, namely childhood amnesia, the reminiscence bump, and the timely correlation with the advent of social media and digital photography. To expand on the latter, in 7th grade I acquired a (non-smart) camera phone, a digital camera, and a Facebook account, which would later force-feed me my memories every year. Are those memories more alive in my head than my childhood and college years because of my frequent visitation to them? Or, do they fall into my prime reminiscence bump?

PRIOR RESEARCH & INSPIRATION

The literature review lays down the framework for this autoethnography project. It provides critical information on nostalgia, childhood amnesia and memory, photography and memory, and the film to digital transition. The end goal of the project will be to create a close-to-accurate timeline using found film and video. There are currently little to no examples of this exact type of combination project, but found film, photographs as memory cues, and chronological timelines of aging are separate areas of interest for many.

Timelines of Aging

The most famous example of a video timeline that shows aging is likely the "Portrait of Lotte" (2014), in which Dutch filmmaker and father Frans Hofmeester recorded a fifteen second video every week of his daughter's life. The published version shows the viewer the progression of aging from birth to fourteen years of age in four minutes. The most current version expands to show Lotte from 0-20 years, but the original remains the most famous with over 30 million views, in contrast to the more current version with just over 20 million views. Similarly, Shawn Robertson's *Time-lapse of growing up over 14 years* documents his children's journeys through their youth. Unlike Hofmeester, Robertson uses still images, though it is unknown how often the photos were taken. An unintended result, but also fascinating, is the progression from film to digital cameras, which the viewer witnesses as the technology grows alongside the children. Although the video creators used slightly different methods, both were heartfelt and gave the viewer a warm, touching, and nostalgic feeling. As the viewer watches these childhood aging progression videos, they reflect on and relive their own youth.

Found Film

Now that photography has predominantly transitioned to digital, the discovery of analogue-world artifacts can be electrifying. Many people enjoy the thrill of the gamble that is mystery film, and will seek out thrift stores for cameras loaded with forgotten rolls, or battle for the winning bid on eBay. One extreme example of the thrill of finding mystery film was the Mt. Everest expedition featured in Sony Alpha's short Youtube film, "The Ghosts Above" (2020). The expedition team risked their lives just for the *chance* of finding the lost camera and its film in the pocket of Andrew Irvine, who disappeared in 1929 with his climbing partner George Mallory on their attempt to reach the summit ("The Ghosts Above"). Regardless of one's reason for the hunt for lost and forgotten film, it is an adventure with an expiration date. Like the undeveloped film of my own past, there is a finite amount of mystery film filled with untold stories, and eventually the images that remain will degrade if not developed soon.

The Rescued Film Project is one of the most notable organizations that works with found film. The Rescued Film project accepts donations of undeveloped film and will develop them for no cost and will email the donor the photographs for personal use. However, the donated film (negatives and newly copyrighted images) is then owned by the organization. The rescued photographs are displayed publicly and can be viewed on their website rescuedfilm.com. Some photographs are sorted into collections, but it is more enchanting to view the photographs in order of recency of development, in which the only qualities these photographs have in common are their abandonment. Two notable works of The Rescued Film Project are the 1200 rolls of undeveloped film from the 1950s and 31 rolls of undeveloped World War II film.

The 1200 rolls of film were found on eBay and were shot by one man named Paul from a suburb of Chicago. Each roll, unlike most found film, was meticulously labeled describing the

contents. After developing all 1200 rolls, The Rescued Film Project learned an enormous amount about Paul's life in the 1950s, further proving that photography is a physical (now digital) representation of our self-identity. The Oregonian published this story as a Youtube video, and concluded with a quote by Levi Bettwieser, creator of The Rescued Film Project: "Pictures are one of our only defenses against time. They're the only evidence that we existed" ("1,200 Undeveloped Rolls of Film from the 1950s Discovered"). Similarly, 31 rolls of undeveloped film from World War II were found and sent to The Rescued Film Project. In the video, Bettwieser narrates, "I perceive all the images that I rescue as being historical. It does not matter if the roll was shot in the 1990s, I see that as a piece of history. But this batch of film automatically has the weight of potentially having extreme historical value" ("Undeveloped World War II Film Discovered" 00:35-00:45).

Most similar to my experience of developing my childhood film was Larry Angerer's discovery of his own childhood film at 64 years old. Angerer acquired an old camera from his mother that contained the 50-year-old undeveloped roll. On it were photos of him and his childhood friend Stan Schnieder, who he had not spoken to in years. Motivated by the found film, Angerer reached out to Schneider and reconnected. The experience of discovering and developing your own forgotten film can be more than finding a time capsule, it is like finding a portal to the past.

PROJECT GOALS

Through an autoethnographic approach, I intend to further explore childhood amnesia and memory. By dusting off the physical remnants of my childhood, I hope to unlock forgotten memories, or at least illuminate the fragments, combatting my own childhood amnesia. 86

never-before-seen home video cassettes and 28 rolls of unlabeled and undeveloped film will be

digitally transferred, and context clues will be used to put the pieces together. Like a scavenger

hunt, I will look for familiar or time-specific items in the photograph and neighboring photos on

the roll. The goal is to sort and organize my childhood memories in a chronological timeline. In

doing so, I hope to affirm the existence of certain moments, as many of our earliest memories are

made up. According to Akhtar et. al, approximately four out of ten people have fabricated their

first memory (1617). However, this will raise several questions such as: can memory be stored in

photographs, or is our memory *of* the photograph? Can artificial memories be implanted by

photographic cues? How far back do our memories reach?

METHODOLOGY

Initial Steps

Such a personal project required the process to remain metaphorically close to home. The

tangibility of film assists in the connection to memories and nostalgia. Rather than sending away

my film to a company for development and scanning, I physically connected with my past in a

much more intimate way. A close friend developed the rolls in her home darkroom. At a glance,

human error may be a concern, but to quote Bettwieser on the Rescued Film Project's

development of the thirty-one rolls of WWII film:

> Some people might look at how I develop film and see that I'm doing it in my kitchen,
>
> and I'm loading film in my bathroom and they think that potentially the quality is lower
>
> or the attention to detail is lower opposed to a big developing house. When you are
>
> developing film that is so unique as this where each roll is expired one might have water
>
> damage you really have to approach it in a small batch approach where you have to treat

every roll individually and you can't think about bulk processing this type of film.

("Undeveloped World War II Film Discovered" 2:41-3:11).

I also personally scanned the film using the Epson Perfection V600 Scanner, a scanner meant for high quality scans of negatives, furthering the experience of personally connecting with my memories. Home videos were also incorporated into the timeline as well, by using a video cassette to digital converter to digitally archive and access the long lost memories that the cassettes held. Adobe Premiere was used to construct the timeline as a video to simulate the idea of my own personal lost memories reel.

To help elicit the memories, I followed the advice and practices of ethnographic and childhood amnesia research. Prior to watching the cassettes, I first asked myself Peterson et al. 's prompt for recovering earliest memories, "'I want you to think way back and tell me the first thing you ever remember, something that happened when you were really little...What else do you remember about that?'" (e523). It was a challenge to chronologically place my earliest memories. Not much information remained, just flashes. However, I settled on my memory of my sister smashing my face into my fourth birthday cake, simply because I know its exact date. After scanning the images and as I worked to sort them chronologically, I followed Annette Kuhn's (2007) practices for autoethnography and photography. Kuhn advises,

> 1. Consider the human subject(s) of the photograph. Start with a simple description, and then move into an account in which you take up the position of the subject. In this part of the exercise, it is helpful to use the third person ('she', rather than 'I', for instance). To bring out the feelings associated with the photograph, you may visualise yourself as the subject as s/he was at that moment, in the picture: this can be done in turn with all of the

photograph's human subjects, if there is more than one, and even with animals and

inanimate objects in the picture.

2. Consider the picture's context of production. Where, when, how, by whom and why

was the photograph taken?

3. Consider the context in which an image of this sort would have been made. What

photographic technologies were used? What are the aesthetics of the image? Does it

conform to certain photographic conventions?

4. Consider the photograph's currency in its context or contexts of reception. Who or

what was the photograph made for? Who has it now, and where is it kept? Who saw it

then, and who sees it now? (Kuhn 284).

Kuhn's advice was combined with Harrison's similar ethnography research techniques. One of

her methods is to allow the respondents to select ten photographs to explain their life. Continued

observation of the photographs elicits further memories of streets, homes, narratives, and

emotions. From there, stories often take off from the starting point of the original photograph

(Harrison 91). With the combined advice, memories of the scenes depicted in the photographs

were not always directly unlocked, but *related* memories were exposed as a result.

Constructing the Timeline

Eighty-six home videos and twenty-eight rolls of film yields a great deal of content, and

including a meaningful clip from each video would be nearly impossible. After scanning the

film, I organized the photographs based on context clues within the photographs themselves and

the other photographs on the rolls. As I watched the videos, I took notes on the significant toys,

outfits, friends, family members, and noted the videos that featured moments also in

photographs. Most videos were labeled with some form of date, typically the month and

respective year, which later helped to adjust the photo timeline. To narrow down the videos for the timeline, I selected moments that were milestones or of great significance, moments I remembered, nostalgic moments, holidays and birthdays that could easily be dated, and all videos that aligned with a photograph.

Video projects require careful editing choices. Audio can be a crucial part of a project. I contemplated not using music and using only audio from the videos; however this made the video drag on. Instead, I found an upbeat, royalty-free soundtrack with a fitting name: "Reflect," and I made editing cuts to the beat of the song. To build off my original idea to feature the audio of the cassettes, I kept the original audio, and extended it into the photographs of the same moments. All videos are shown as they were transferred, and no additional editing effects (other than cuts) were added. Film photo colors were also degraded, and only edits to make the photos appear more visible were made. Lastly, the photographs intentionally fly by quickly — a challenge for the viewer to fully grasp each moment. Like memories of childhood, they are short flashes that represent a moment in time. The last video shown is the Christmas in which we acquired a digital camera, signifying the end of our own analogue era.

IV. RESEARCH OUTCOMES

Archives

Like books lost in a library if returned to the wrong location, many of the memories recorded on cassettes would have been lost forever if not digitally transferred and watched. In the case of my home videos, the cassettes were poorly archived. Some cassettes were entirely unlabeled and some only with dates. Many were labeled with one or two events, but actually included many more. In the context of the times, the mixing and matching of events on a cassette tape made sense. Each tape could hold approximately thirty minutes of footage and physically took up a lot of space. Therefore it was in the best interest of the consumer to fill the cassette as much as possible. To better organize the home videos digitally, I stopped the recording at the end of each event rather than at the end of each cassette, which produced several shorter videos rather than fewer unorganized longer videos.

False Memories

Like the degradation of the found film rolls, many of my earliest childhood memories were poorly retained. One example of this is my second birthday with my family. I remembered seeing the rectangular Barney cake from above, but I remembered being in a highchair as an explanation for the height. Upon watching the video, I found that the height was from my great aunt lifting me up to see the cake as everyone sang "Happy Birthday." I also incorrectly remembered the first home I lived in. My memory was missing doors, featured the wrong dining room table, the wrong fish tank shape and size, and a different kitchen configuration.

Most interestingly was how incorrectly I remembered my earliest memory that I was the most certain of. As mentioned earlier, I dated my earliest memory to my fourth birthday. I have hazy memories from earlier, but I chose this memory because I was *certain* of the timeframe.

After watching the video of my fourth birthday, I learned that this memory was not of my fourth birthday at all. It was my third birthday, and my sister did not maliciously shove my face into my birthday cake as I remembered. Rather, I allowed her to do it!

Nostalgia & Giving Context

One of the most fascinating experiences was giving context to both the photographs I had grown up seeing, as well as the found film photographs that I had recently developed. The photographs were brought to life by seeing the moments that surrounded them. This experience felt like watching a behind-the-scenes of a movie, but for my own life.

The videos that gave context to photographs (including photographs that I did not grow up seeing) conjured more feelings of nostalgia than any other video, even videos of events that I remembered. This confirmed that photographs play a huge role in my personal nostalgia. However, it cannot be said if this applies to most people.

Personal Reflections

The experience of watching eighty-six tapes, especially in the very beginning, felt the closest to what I would imagine a time travel experience to feel like. It was as if someone opened a portal to the past and I was able to look in but they could not see me. Some feelings of nostalgia emerged, especially when I would see favorite toys or moments I remembered. However, my most prominent thought was, "Is that what I really looked like in that moment?" When reminiscing, I would often age myself up. Pictures, although memory aids, only show you a fraction of a second of any given moment, while the brain fills in the rest as it projects our identity and personality onto the photograph, creating a new memory. In these videos, I was not the me that I "remembered." Additionally, my mother when watching the videos also had a

moment of self-reflection, as she too saw herself in a different light than how she perceived herself at the time.

The most surreal experiences were seeing moments I remembered in first person from a third person perspective. For example, my second birthday; Halloween 1999, in which my father dressed up as a monster then knocked on the door and scared me; sports; and our 2005 elementary school Gymnastics Show. Surprisingly, the Gymnastics Show was one of the memories I remembered almost flawlessly. I remember sitting off to the side, watching the older boys do back handsprings and backflips as "Yeah!" by Usher and "1, 2 Step" by Ciara played over the speaker, which is almost identical to the video recording. The most surreal moment of all was not one that I explicitly remembered, though I have vague and hazy flashes of my eighth birthday in 2003. In the video I received earrings, but my ears were not pierced yet. I sassily said something along the lines of "Twenty years later," implying that my ears would be pierced in twenty years. However, the first time that I watched and witnessed this video recording was almost twenty years later.

Analogue vs. Digital

Watching the home videos and seeing the scanned found film gave me a sense of nostalgia for analogue technologies. For moments such as birthdays, we kept the camera rolling, documenting the real birthday experience. There were cuts at times, but they were few and far between. Home videos (and by extent, events), felt more organic and less staged than today. The home videos included the little moments of bickering between family members, which do not exist on cell phone videos. Videos are easily stopped and started, or deleted and redone. If one does record a whole event, they would likely scrub through the down time when playing it back. Finally, there is the added stress of getting the moment picture-perfect for social media. While

the family film photographs were meant to archive and savor a moment for personal remembrance and intimate sharing, digital photos are often publicly on display as a means of communication. Like going out in public, people often feel the pressure to look presentable, and the luxury of being able to immediately see a photo and nit-pick is more like a curse.

V. CONCLUSIONS

Memories are fickle — events are reimagined and time can be displaced. Even the clearest of memories that we are most certain of may not be as they seem. Photographs and videos can assist by acting as memory aids. A memory that was once thought to be forgotten can be jogged by a photograph or video. However, memory aids come with a risk. Memories can be relearned and even replaced by revisiting photographs and videos. This is not to say that memories can be "stored" in photos and videos and other memory aids. Indeed, they can help us to remember, but they cannot magically bring back lost memories, especially those lost to the void of childhood amnesia.

VI. VIDEO LINK:

https://youtu.be/7OCfjgm1YkU

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