

Lossy Light Memories

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I. Concept

This paper is meant to be a preliminary document about the process I will go through in order to realize my thesis project at Parsons, The New School, during the academic year 2008-2009. The title for this paper has been chosen as it successfully incorporates the two main elements that currently drive my investigation. The first core definition of “Light Memories” is strongly linked to the concept of Photography, not only from a physical and technical point of view, as Photography is a medium who lives through Light, but also from an emotional standpoint, as the images produced thanks to the photographic medium fixate moments in time as well as contexts, dynamics which can, ultimately, be considered precious visual memories. The “Lossy” attribute is directly borrowed from the digital technology software jargon usually referred to a specific way to compress digital data having as a result a lower quality, but still useful, copy of the original. From the combination of these two concepts emerges the main topic of my research embodied by the lost of values which gradually took place during the transition from Analog to Digital Photography. A solution to this issue is what I set to be the final result of this thesis process, in the form of an actual interface to be used by the wide public audience.

II. Introduction

The art of capturing images, and with them emotions and memories, has always fascinated me since my early childhood. I remember I had my first contact with this strange world made of black boxes, strong lights and long lenses when I was five years old. At that time I was living in a flat and I used to spend a lot of time in our neighbours’, Carmela and Caco, house as my mother and father were both very busy working hard to make a living for my sister and I. As a result I became very close to both Carmela, who eventually got to be as a real grandmother, and

to her son Caco, who is like an uncle to me. It was in that very apartment that I entered the magic world of photography as Caco was a professional working in the field and I couldn't resist the innate impulse to enter his private laboratory in order to explore it and play with his tools ultimately messing them up!

The years passed but I always kept alive in me this fascination for that peculiar craft that among many other was the only one capable of capturing an instant from the continuous stream of time in the same way human eyes do with visual memories.

“There is surely nothing other than the single purpose of the present moment. A man's whole life is a succession of moment after moment. If one fully understands the present moment, there will be nothing else to do, and nothing else to pursue. Live being true to the single purpose of the moment.”¹

Growing up I had no other contacts with Photography. High school years passed in a glance followed then by my first real negative education experience, that in the Computer Science degree program at Milan Politecnico, ended with my conscious withdrawal. At that time I naturally started exploring the intersections between visual arts and computational media and one year later I officially started to learn Design at the IED academy in Milan, enrolling in the Digital Design program. It was during that period of time that I started exploring Photography as a mean to create and manipulate those visual elements that were the essential building blocks of many of my visual communication projects. First on my own and then with the precious help of Caco the doors of photographic knowledge were opened to me revealing a marvellous and wide panorama. My first personal camera was a cheap digital one and the photos I was taking with that tool were pleasing but the more I was using it, the more I was feeling that I needed something more “manual” in order to really learn the basics of Photography as almost everything in that camera was automatic. It was with the purchase of a digital reflex camera that I discovered the meaning and the power of those words that just some time before were arcane to me such as aperture, shutter time, white balance ... Thanks to that interface I really started playing more directly with light and it is the tool that I'm still currently using after four years. At that point in time my personal photographic experience was almost exclusively based on digital cameras, I was just

loving the ease of use, speed and quality even a beginner like me was able to achieve with little effort thanks to the superb design and technology of those digital interfaces. Given my little experience I was superficially considering analog cameras just as things of the past; they were slow, convoluted and, more importantly, they were not able to *immediately* visualize the result of a given shot, thus my interest in them was fairly limited. This situation began to change during a trip to Berlin, during which I randomly encountered a very special analog camera, a Lomo-camera, which started to erode my superficial assumptions about Photography and digital technology in general. That strange, little device was funny looking, made completely in blue rubber with plastic lens and it didn't even have a viewfinder! In order to take a shot you just had to point at the subject, press the shutter button and hope it was caught on film... at first I was considering it more a joke than a real tool, but then what a surprise when looking at its results! The images captured by that device were so genuine, spontaneous, maybe with lower quality than those of my fancy digital camera, but absolutely imbued with life.

*"The medium is the message."*²

III. Motivation

From that moment on I started exploring the analog medium and now I own several analog cameras as well as a digital one. What I've learnt so far has helped me building a more critical perspective over digital technology and its relationship with the analog counterpart. One of the assumptions related to this subject that I feel most is that in the transition from analog to digital medium, specifically in Photography, has not only changed the way images are captured, processed and memorized, but, more importantly, has, gradually but constantly, modified the way we approach to the photographic practice: how we interact with the camera in order to take photos, how we look at them, how we share them, what value we attribute them. One example of this deep shift is the explicit, obvious, but not broadly perceived sacrifice of *surprise* in favor of *immediacy*. The first and foremost feature designed and marketed when the first consumer digital cameras came on the market in the mid nineties was the ability to take a photo and immediately show it back in order to evaluate its quality. The feature encountered a great success and was included in all the following evolutions as it successfully satisfied the great demand coming from

the users to eliminate the long, time and money consuming process of develop and print the images captured on film at the local photographic laboratory, similarly as Polaroid did with the introduction of the instant developing film cameras during the fifties. All this convenience came with a price, that of the sacrifice of the element of surprise. As the pictures can be immediately accessed and evaluated in the same place, same moment they have been taken with no effort and additional costs, it is easy to imagine that the practice of taking a shot over and over until the “perfect” one is finally captured has become very popular and widespread. The emotions of surprise and suspense emerging from the discovery of the results of a film shot time ago were lost for good.

Other two key features brands like Canon, Nikon, Pentax, Sony are always pushing to the limit of are those of quality and speed, the first in terms of resolution and the second seen as the overall capturing, processing and memorizing time the device consumes at each shot. Not surprisingly the users react positively to these technological advancement, even if they are not truly genuine as, for example, the quality of a picture is more related to that of the lens which captures it more than the resolution of the camera sensor. The pictures are larger and larger, can be scaled up without losing too much detail spending less and less time capturing them, but how do they look? There is really little or no difference between an image taken with two digital cameras in the same price range. Taking two DSLR as example a Canon 40D or Nikon D300 and looking at the images they produce it is clear that the difference between them is little more than just the brand they carry on their body.

“Even more fetishized is “film look” itself -- the soft, grainy, and somewhat blurry appearance of a photographic image which is so different from the harsh and flat image of a video camera or the too clean, too perfect image of computer graphics.”³

The images produced digitally have stunning quality, but they all look and feel the same, while film used to give each shot a distinctive quality, thanks to the different chemicals used to produce or process it. Post production digital image manipulation suites like Adobe® Photoshop® are powerful tools that can enhance and transform each digital photo boosting its characteristics, empowering its qualities and fixing its weak points, but they are incomparable to the implicit

character a specific combination of film, camera, lens and develop and print techniques can give to a given shot. One last argument about the shift the digital transition has brought in the photographic world is related to the way pictures are viewed and shared. Thanks to their immaterial, electronic, numerical nature, and to the wide spread computational information network known as the Internet, the images captured with a digital camera can easily reach a world wide audience. So called “Web 2.0” services such as the popular Flickr enable anyone with a digital camera, or tools to digitize its shots, a computer and Internet connection and no proficiency in database/web technologies, to share its images with the rest of the world in a glance. The popularity of these services is growing together with the astonishing success of digital consumer cameras; in any given minute, on the Flickr website, thousands of images are uploaded and shared with anyone present on the net. While this is great on one side, as it democratically enable any image maker to show its creation to the same audience a world known professional can reach, the trade off is that of loss of intimacy and social value the sharing of a picture used to generate. When all these contemporary technologies were yet to be implemented and distributed to the wide public audience, the sharing and viewing of pictures was a very intimate and social event. Usually one picture was given as a gift to a particular person and the act of giving and receiving the gift involved just those two individuals. Another occasion would have been the leafing through the photo album together with friends or family, another hint of the social yet intimate nature of the photo sharing and viewing activities in the past. Surprise, magic, unique character and intimacy, all of these features that once characterized the photographic experience are slowly but constantly fading away, leaving an immediate, high speed, high quality, world accessible Photography behind them. Probably desirable and ideal for business or worker professionals, but surely not fully true to the very nature of the images that every day millions of people try to condense their precious and intimate memories in.

IV. Methodology

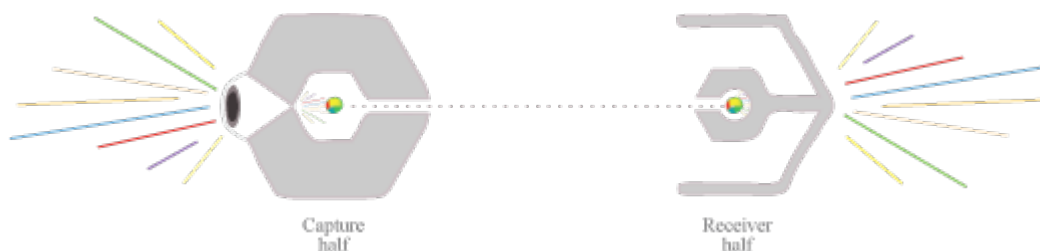
The result of this thesis research will be the creation of an interface able to capture images, while keeping alive those qualities faded away in the transition between analog to digital Photography. The form that can synthesize this concept is that of a split object, a camera both divided in time

and space. The one of the fundamentals that has always represented the technical and conceptual core of the photographic practice is the unity of the lenses and of the film, of the element which captures the image and that which stores it in time. Once the photographer clicks the shutter button it opens in a given time at a given aperture letting some light pass through and reach the sensitive film in the back which retains a visual impression of the scene which was taking place in front of the camera lenses.

*The mechanism: stamped black tin,
Leatherette over cardboard, bits of boxwood,
A lens
The shutter falls
Forever*

Dividing that from this.⁴

I plan to subvert this logic, exploiting the implicit qualities of the digital medium not to simply mimick the traditional analog camera behaviour but using them to translate the digital image into the form of a visual memory. The device I envision is composed by two distinct parts: the first able to capture and transmit the image and the second able to receive and visualize the images taken by the other half of the device, in a very specific fashion. The taken images will be displaced in time, as the receiver will get them at a later, not specified, moment than they were captured, as well as in space, as the receiver can be anywhere an Internet connection is present. While the time passes the images will slowly emerge on the surface of the receiver and live there for some moments to then fade away to, maybe, reappear at a later moment, in a continuous cycle.



The two halves of the device are implicitly linked and one receiver can visualize just those images coming from the capture device it has originally linked to. I'm here using the term "image" to refer to a medium able to hold a visual memory and not specifically to a static, photographic-like image. The capture device will be able to record a limited amount of visual memories; once it has used all the available space two options will be possible: wait some time so the "buffer" frees some space for new visual memories or meet in person with the holder of the receiver and reunite the two halves together. In that very moment all the space will be freed on the capture device and all the visual memories will be freely accessible on the receiver for a certain amount of time.

In order to implement this concept I'm going through an iterative process both experimenting with value fiction designs to test to the limits the fundamentals of the idea and, once arrived to a solid conceptual stage, start the real implementation which probably is going comprehend elements of physical computing, network, user interface and visual programming.

V. Research

These projects represents precedents that can be linked to the Lossy Light Memories project from both a conceptual and technical perspective:

The Moment Camera

*"Sometimes, a very short subsequence, or cliplet, can capture the moment, while still allowing the imagination to fill in what happened just before or after the bit of action. Just as a still image forces the viewer's imagination to fill in what is left out, such short cliplets serve a similar purpose.."*⁵

The Moment Camera project is very insightful particularly because of the peculiar technique and approach to capture a "moment" and the attention reserved to the tension between the elements of still image and video. Using a continuously filled and updated short video buffer, a Cliplet, the Moment Camera should be able to record a moment from time, not in the form of a single image but in that of a very short video. This would still allow the viewer to interpret something very similar to a still shot but enhanced with a layer of motion and dynamics.

Exploring Design Concepts for Sharing Experiences through Digital Photography

“In this research, we aim to explore meaningful design directions for future photography applications with a focus on the experiences around sharing. We review a wide-range of photo-related applications, extracting emerging patterns of different photo-related interactions to inform a framework for their discussion.”⁶

This project is particularly relevant as it presents a thorough and up to date research about the currently most popular ways to capture, share and edit photographs as well as related academic projects and emergent patterns of interaction.

Sharing Digital Photographs in the Home through Physical Mementos, Souvenirs, and Keepsakes

“People now easily share digital photos outside the home via web publishing and gift-giving. Yet within the home, digital photos are hard to access and lack the physical affordances that make sharing easy and opportunistic. To promote in-home photo sharing, we designed Souvenirs, a system that lets people link digital photo sets to physical memorabilia. These mementos trigger memories and serve as social instruments;”⁷

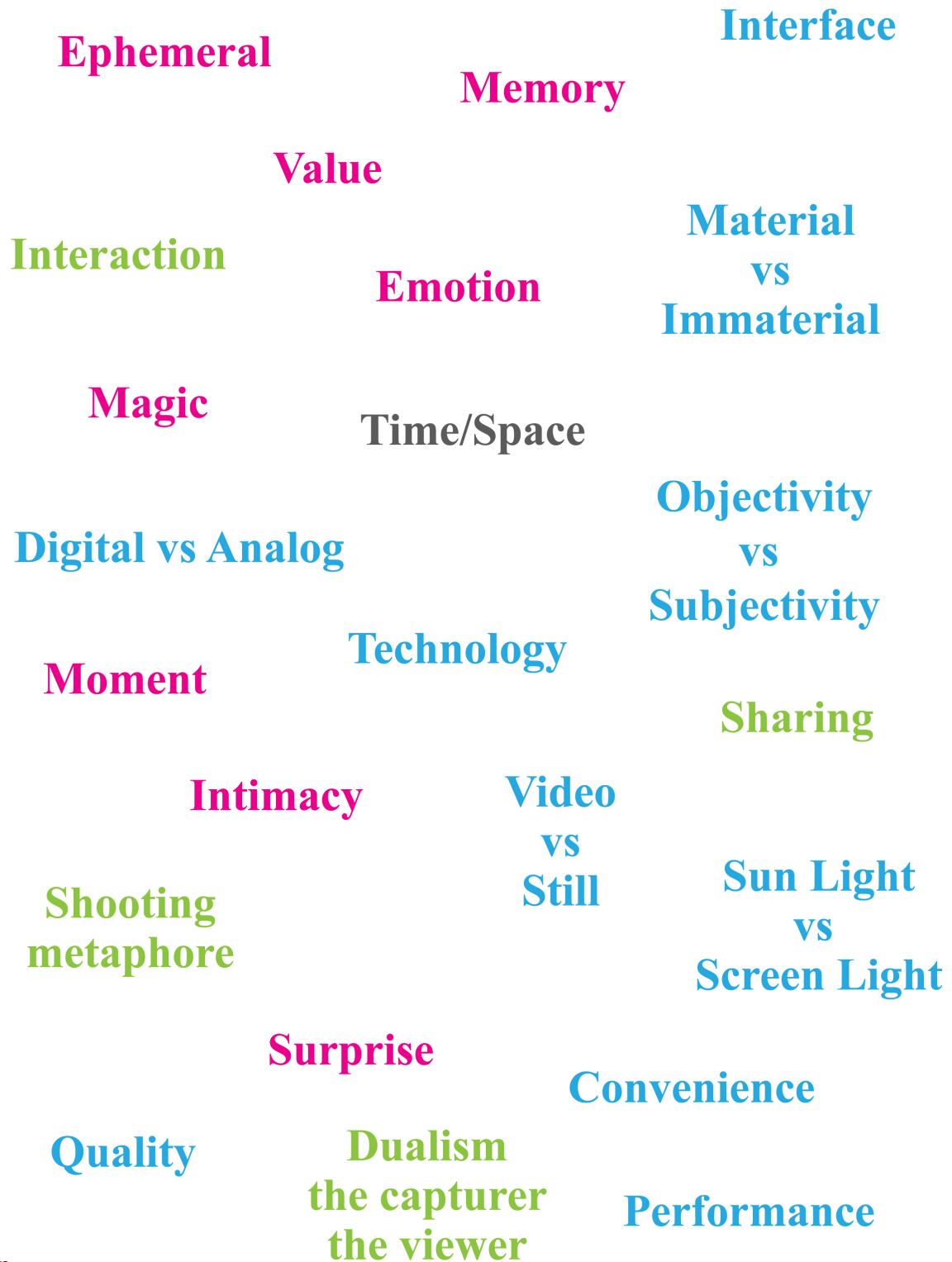
The core concept that links this project with the Lossy Light Memory one is the shared attention reserved to the way visual memories in the form of digital files are brought back from the virtual world to the physical one through some kind of visualizer that resides in the intimate space of a home. The Souvenirs system is an interesting attempt to restore the intimacy and social nature of visual memories sharing lost in the transition from film photography to digital photography.

Computational Photography

“Computational photography combines plentiful computing, digital sensors, modern optics, actuators, probes and smart lights to escape the limitations of traditional film cameras and enables novel imaging applications. Unbounded dynamic range, variable focus, resolution, and depth of field, hints about shape, reflectance, and lighting, and new interactive forms of photos

that are partly snapshots and partly videos are just some of the new applications found in Computational Photography.”⁸

The Computational Photography paper is a precious repository about the latest research of the intersection of computing and digital photography. While the technical details and techniques can be distant from the focus of the Lossy Light Memories project, they are insightful as they clearly present various paths that can be possibly useful to translate a still photograph into a breathing visual memory.



VI. Map

VII. Prototype

The following documentation is about the very first, early physical prototype realized during Summer 2008. While absolutely simple it successfully incorporates the major concepts that constitutes the core of my current research such as:

The user who captures images cannot directly see them but has to wait

The user who captures images have a certain amount of shots available

The images can be seen just on the visor device at a later time

The visor is an object that can only visualize the pictures taken by the capture device

The visor is an object who lives in the home

The visor and the capture device are displaced in time and space

The images are not print but they keep their light nature

They images are ephemeral, they cannot be seen forever or placed on a wall, they emerge from time in the visor

The capture device is a 60x60mm analog camera called HOLGA



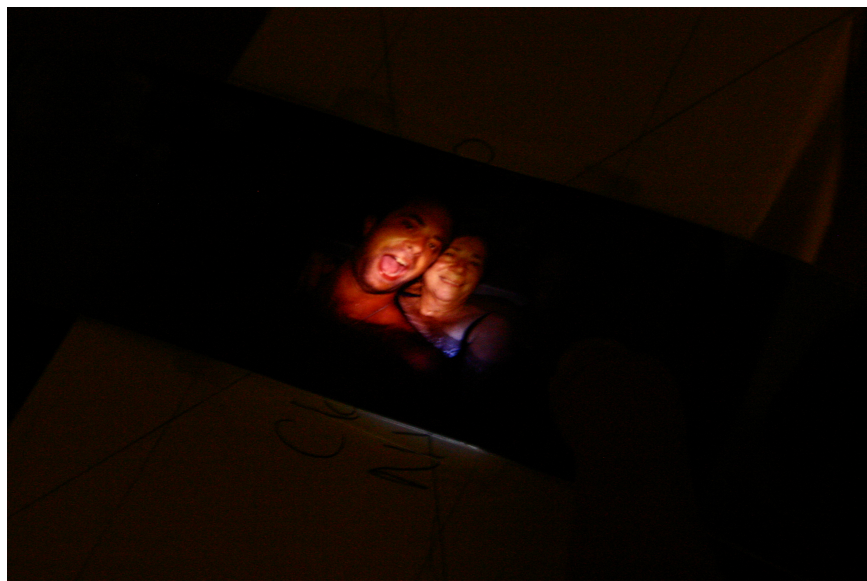
The images are saved on 60x60mm VELVIA positive film



The visor device is a custom made positive film visualizer



The visual memory is lit from the past



When I first saw the images via the custom made visualizer I was deeply surprised. Just seeing them for the first time off the screen, not only printed on paper but temporarily lit up made me appreciate their ephemeral nature and the value that it carries with it and inspired me to refine the concept of Lossy Light Memories.

VIII. Conclusions

I'm deeply motivated to take this project to its full growth and expansion as I really feel that the current situation of, not only Photography, but more in general digital technology is critical. The consumer market is flooded by devices that offer the same functionalities and share the same values: to get very high quality output, very quickly and very cheaply ... but I feel something is missing. With today's digital camera it's easier to capture "the perfect shot" in any given situation, but what is the perfect shot compared to the surprise and value of a long awaited, physical visual memory? I will go on exploring this topic refining it further in order to successfully bridge the technological and emotional gap that exists in between the analog and digital dimensions of the photographic practice.

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