

CIBACHROME: PRESERVING THE MEDIUM

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Cibachrome: Preserving the Medium

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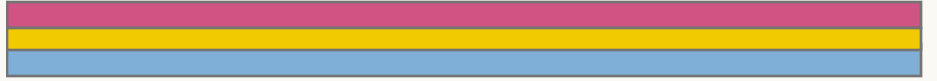
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ABSTRACT



Cibachrome is a method of photography printing that ceased production in 2012, which artists worked with globally. Unfortunately, the process itself is not well documented, and information of its history is not widely known. We worked with the Cibachrome Association and the Marly Innovation Center (MIC) to help compile information on artists who used Cibachrome. To learn about the people that worked with Cibachrome, we interviewed professionals, conducted museum observations, and researched existing literature. We created a prototype database of the 163 artists and 550 artworks we discovered, which was then curated into a timeline of the most prominent for use in a future exhibit.



EXECUTIVE SUMMARY



Our Project

Cibachrome is a type of film printing paper, previously manufactured by Ilford. It goes by many different names colloquially such as Cibachrome, Ilfochrome (the brand name), or silver-dye bleach photography. The production of this paper and its chemistry was discontinued in 2012 due to the rising cost of production, and because film photography fell in popularity over time in favor of digital photography, like Inkjet (West & West, n.d.). For this reason, the Cibachrome Association in Marly, Fribourg, has been working to archive the rest of the product and associated technology, archive the artwork in their possession, and ultimately create a future exhibit featuring Cibachrome artists to celebrate the medium.

Goal

The goal of our project was to aid the Cibachrome Association at the Marly Innovation Center with preserving the memory of Cibachrome as an artistic medium. This was achieved through curating a list of artists and their works of Cibachrome and using that list to design a timeline of the most prominent artists from the 1970s through the 2010s. This timeline could be used for a potential future museum exhibit to educate the public, and the Cibachrome Association and other museums could use and expand the list.

Methods

Our team used three methods to achieve this goal: content analysis and literature review, semi-structured interviews, and museum observation. We conducted these interviews and museum observations in weeks 2-5 and did content analysis in weeks 1-6.

Method 1: Content Analysis

With content analysis, we reviewed books containing known Cibachrome artists and documented any works we found, and the names of any found artists. We used the internet to search the names of artists or find any articles containing a list of names. Once we had the name of an artist that we would like to include, we would search for any of their personal photography websites, art listings or auctions, and exhibits that featured them.

Anything that we found was put on a communal document of notes, and later verified and moved over to a spreadsheet that included the following categories: artist name, start and end date of work, prominent works, prominent exhibitions, digital versus analog, manipulated versus non-manipulated, artist location, and our sources. With our sources, we linked every website found, so that others could easily find what we had compiled.

Method 2: Semi-structured Interviews

With semi-structured interviews, we spoke with industry professionals including artists, chemists, conservators, and restorationists. We contacted sixteen professionals, interviewed with seven, and were in email correspondence with three others.

Each interview we tailored the questions to the profession. We were interested in why the artists we spoke with chose to work with Cibachrome, and what they considered their most influential or favorite works. For chemists, we learned more about the Cibachrome technology and process. With conservators we asked about common issues they have observed with Cibachrome and typical exhibit and preservation practices. For restorationists it was similar to conservators, but we also learned about restoration techniques.

For every interview, we asked if they had any artists that we should include in our list, and if they knew any other industry professionals that we should speak to. For the email correspondence, we sent a copy of our questions for them to read, and asked if they had any recommendations of artists and industry professionals.

Method 3: Museum Observation

We visited art museums across Switzerland in Lausanne, Fribourg, Bern, Basel, and Winterthur. For each museum, we were looking to see if Cibachrome was on display. We also took notes of exhibit commonalities and features. This included observing lighting conditions, how pieces were grouped for display, exhibit interior design, interactive components, and where information was placed. This would be used for us to recommend what a potential Cibachrome exhibit should include.

Findings

Finding 1: The current state of Cibachrome is not well documented online or in museums.

We found Cibachrome a difficult topic to research, as both the process and related artists and artworks were not well documented anywhere. This was due to both the age of the internet, and artists not labeling their works consistently. Since Cibachrome was a product from 1963 and most popular in the 80s, most sources online about Cibachrome were secondary sources, or the primary sources had been overwritten as new content was published.

Searching for “Cibachrome artists” would only give us 2-3 of the most famous artist names. Once we had a list of artist names from books and interviews, proper prompting of search engines made research easier. For example, “artist name Cibachrome” brought up auction listings of artist works, which we could then reverse engineer to find museum exhibits and artist websites.

Of the museums we visited, only the Fondation Beyeler had prominent Cibachrome works on display. This is because we were visiting the current Jeff Wall exhibit, an artist famous for his lightbox photos. Though we knew these were Cibachromes, even the lightboxes were not labeled as Cibachromes. The Fotomuseum Winterthur had one work: Nan Goldin’s *“The Sky on the Twilight of Philippine’s Suicide”* (1997). These were the only Cibachrome pieces we could view at museums in-person.

Finding 2: Artists chose to work with Cibachrome for its unique qualities, but it posed unique challenges that ultimately led to its discontinuation.

In speaking with chemist Jean-Noël Gex, Cibachrome was a unique film paper, composed of many gelatin layers and a gelatin backing. This led to its ultra-glossy finish, and the gelatin layers allowed for the dyes to be ultra-stable. Under proper storage conditions, a Cibachrome can last without fading for around 100 years.

Film papers all contain layers of cyan, magenta, and yellow dyes to produce the image. Cibachrome paper had cyan on bottom, with magenta, and then yellow. Other film papers have these layers in reverse order. This created a different light filtering effect that greatly enhanced colors in the red spectrum.

For these reasons, many artists who chose to work with Cibachrome were loyal to the medium and worked with it for the majority of their careers. On the other hand, Cibachrome had its drawbacks that ultimately led to its discontinuation. This included that the paper and chemistry were more expensive than other film papers, it was more time consuming to develop than other film papers, manufacturing the chemistry was causing excess pollution, and the chemistry proved toxic after long term exposure.

Finding 3: Museums use many preservation techniques to keep the Cibachromes in their collection as long as possible.

Photographic conservation for a museum means assessing the state of a piece, taking any restorative measures needed, and then preparing the piece for exhibition or loan to other museums. From Nadine Reding we learned that photos can be restored by repainting missing details with pigments, similar to retouching a painting. Restoration methods tend to be conservative, taking the less is more approach, and any materials applied to the photo paper are reversible.

We spoke to three conservators who said that due to the delicate nature of the prints, museums make sure to use non-abrasive materials when storing photos to avoid any surface scratches. Photos are rolled, and stored in dark, cold rooms or freezers. High temperatures, high humidity, and bright lighting degrade photos the fastest. To preserve a work longer, museums may even ask the artist for a copy of the original work. When the original work is determined to be degraded past an acceptable level, the museum will destroy it and exhibit the copy as the original.

To slow down the degradation of these photos, works will only be displayed in a museum for 3-4 months every four years. The exhibit will have controlled lighting levels and air conditioning to optimize the lifespan of the photo. Conservators can perform spectroscopy to determine that the photo colors are not fading or shifting.

Since Cibachrome has been discontinued, museum preservationists cautiously preserving their pieces for as long as possible.

Finding 4: A permanent exhibit is needed to preserve Cibachrome as a medium.

Due to the discontinuation of Cibachrome, a whole medium of art will be lost over time if actions to display and educate are not taken. When observing museums around Switzerland, little information was to be found about Cibachrome or its artists.

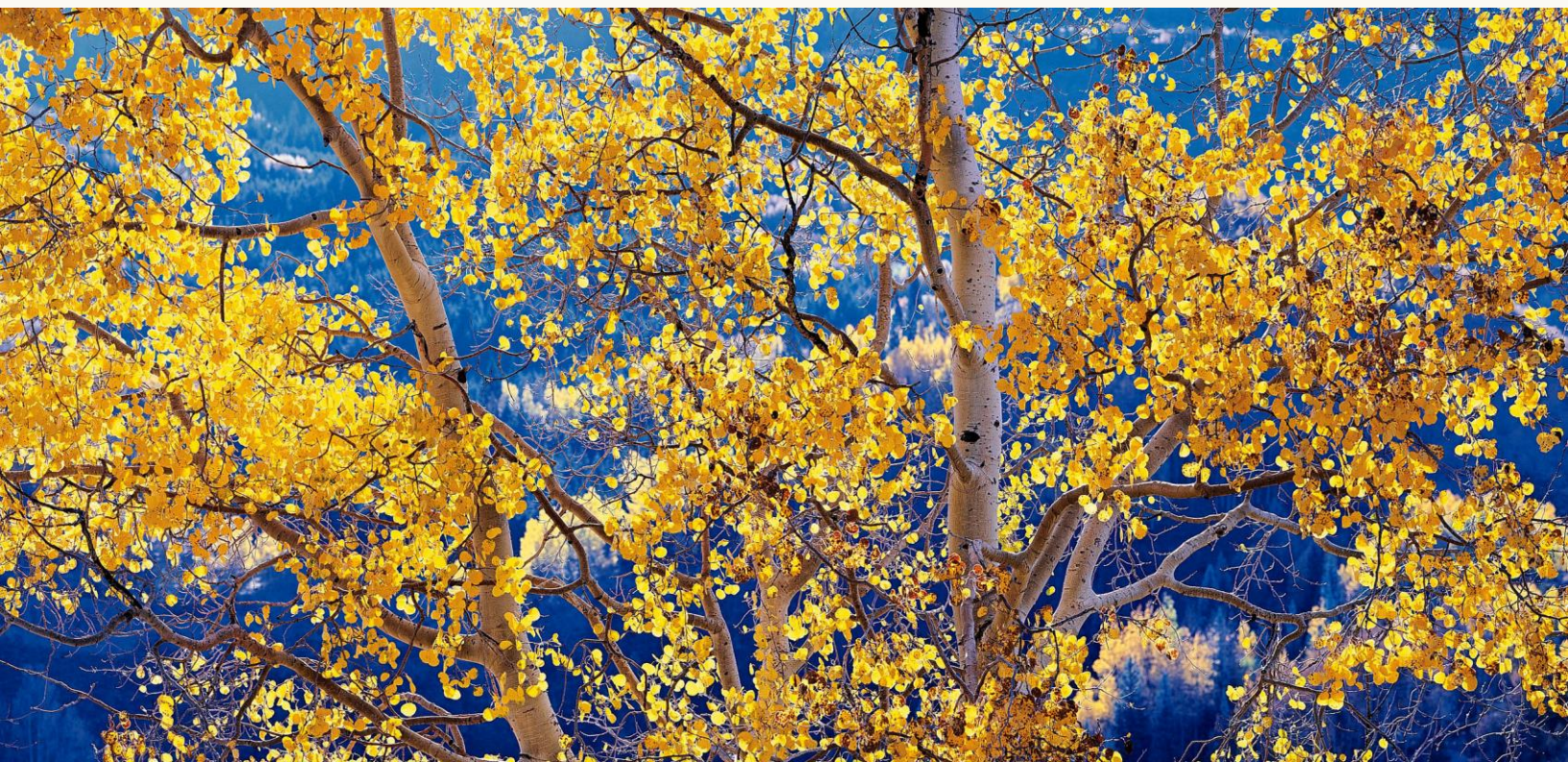
A Cibachrome exhibit should focus on celebrating Cibachrome from the 1970s-2010s. It should feature a variety of artists and their works, rather than a solo exhibition of an artist, to show the range of the medium. This exhibit could be put together chronologically, be grouped by common themes of the works, or the exhibit could even be arranged by the country of each artist to demonstrate the global impact of Cibachrome. Other recommendations for an exhibit include having a neutral background of gray or white walls to allow for the art to pop, and to feature artificial lighting, rather than natural lighting. This will allow for the photography to be viewed at optimal conditions at all times of day, as well as prevent the art from fading over time.

Next Steps and Recommendations

Our group has completed the deliverables of a list containing 163 Cibachrome artists, and organized the list by chronology, themes of photography, and the artist's country. This list was used to curate a timeline of the most prominent Cibachrome artists.

We also prototyped a database using our list. A future project opportunity could expand this list and improve the database to be open source, allowing other museums and collectors to contribute. A good reference model for this would be the Daguerreobase that exists for Daguerreotype photos. Cibachrome may not be manufactured anymore, but by taking these steps, Cibachrome can have staying power beyond the 2020s.

Figure 2: Christopher Burkett, *Radiant Mountain Aspen* Burkett, n.d.)



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AUTHORSHIP



Due to the way this report was written, it is difficult to assign individual authorship for each section, as we all worked on each portion of the paper. Each chapter followed roughly the same process. An outline was made by an individual or as a group, then revised to fit instructor and team member feedback. Then, the outline was split up and turned into a draft, which was revised as a group. Then, a final clean-up of the chapter was done by an individual after feedback was received. The structural changes that each chapter went through, and the different ways group members contributed mean that there is no section singularly written or edited.



Figure 1: From left to right -- Adelyn Fisher, Alyssa Stoffel, Abbigail Cote, Dante Uccello

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INTRODUCTION



1.1 Goal

The goal behind our team's work was to curate a list of the most prominent Cibachrome artists and artworks, to be formatted into an educational timeline. The timeline created highlights the historical impact of Cibachrome and shows how the technology behind the printing process has been adapted by artists over its lifetime from an analog to a digital process. We worked with the Cibachrome Association at the Marly Innovation Center in Marly, Switzerland to compile the necessary information. The project focused on both the artists and artworks associated throughout the years.

1.2 Reasoning

Gasparcolor, a type of color film, was first developed in 1933 by Hungarian chemist Bela Gaspar. Later, in the early 1960s, the Cibachrome process was developed from the Gasparcolor process by Ciba AG in collaboration with a second company Ilford. Plants producing the Cibachrome paper and dyes needed were developed at the Marly Innovation Center, located in Marly, Switzerland. Ciba AG renamed itself to Ilfochrome in 1992, and later pivoted towards inkjet printing in the face of the rise of digital photography. In 2005, Ilford UK acquired Ilfochrome, and kept the name. A few years later in 2010, Oji Paper in Tokyo bought out Ilford UK and continued producing Cibachrome products, until the rise of production costs and lack of demand led to the ultimate discontinuation of Cibachrome production in 2011. It was announced that there would be one more production run of Cibachrome, for artists to get their hands on the material before it would be gone forever. The last of the orders for Cibachrome materials were fulfilled in 2012 (West & West, n.d.).

Due to the discontinuation of Cibachrome and limited supplies, there will likely only be Cibachrome production for a few more years. Cibachrome production is only able to continue due to the storage of the print paper and chemicals by these artists; the chemicals were powdered and stored in freezers and were projected to last for up to 10 years. Once these supplies run out, there will be no more dyes or chemicals to produce these prints. Currently, artists today are using what remains and online forums sell scavenged Cibachrome materials (Vincent, n.d.).

Table 1.1: a chronological display of Cibachrome's history

1963	1992	2005	2011	2012	2026
Cibachrome process developed from Gasparcolor and product is trademarked .	Ciba AG renamed itself to Ilfochrome in 1992.	Oji Paper in Tokyo bought out Ilford UK and continued producing Cibachrome products.	The discontinuation of Cibachrome is announced.	Final distribution and official discontinuation of manufacturing.	Last projected Cibachrome prints can be made.

In speaking with our sponsor Dr. Rita Hofmann (Figure 1.1), we found that the largest use of Cibachrome in the 1980s was for advertising campaigns and commercial products. When viewing the Cibachrome Association archives, many originals we viewed were perfume advertisements and celebrity photoshoots. However, there was much fine art photography shot with the medium.

There are some common themes found among work from Cibachrome artists. Many artists created work on controversial topics to bring awareness to subjects that are taboo. This was especially popular from the 1980s through the 1990s. Two prominent artists participating were American photographer Nan Goldin and Brazilian photographer Miguel Rio Branco. Nan Goldin's work focused on the HIV/AIDS crisis, domestic violence, and the opioid epidemic ("Nan Goldin", n.d.). Miguel Rio Branco's work focused on the complexities of human life, showing street life, urban decay, and human condition ("Miguel Rio Branco", n.d.).



Figure 1.1: Our primary sponsor, Dr. Rita Hofmann (Hofmann, R., 2024).

Another common theme amongst Cibachrome artists is using Cibachrome to encourage preservation of nature and animal habitats. Christopher Burkett is an American photographer whose work focuses on displaying the beauty of the natural world. His photographs have captured diverse landscapes all over the United States, Canada, and Australia, and he is recognized as a national expert in Cibachrome ("Christopher Burkett", n.d.). Another prominent environmentalist is Robert Glenn Ketchum, who was one of the photographers that pioneered Cibachrome printing in the early 1970's. Ketchum has received many awards over the years for his environmentalist work, one of the most notable being the United Nations Outstanding Environmental Achievement Award. Ketchum uses Cibachrome to convey the beauty of the natural environment to move people and encourage preservation of wildlife habitats and forests (Figure 1.2) (Ketchum, R. n.d.).



Figure 1.2: Robert Glenn Ketchum, *Rat Creek, Wood Tikchik State Park*, 1999 (Ketchum, R. G., 2018).

Cibachrome material production ceased in 2011, and according to Dr. Hofmann, Cibachrome prints are projected to be completely non-producible by 2026. The cease in production was a culmination of many factors, including the rise of digital photography as a quicker, cheaper, and more accessible photography medium. Only a few artists still work with it today, and many switched long before to a digital printing method (Burkett, 2022). This has created a sense of urgency for industry professionals to keep the memory of Cibachrome alive through preserving the Cibachrome works available in museums and tracking where other pieces can be found today.

Even so, the memory of Cibachrome has faded rapidly in some aspects. Marly, Switzerland is in the canton of Fribourg, and Ciba AG was a large company employing many residents of the canton. In fact, Dr. Hofmann reflected that Fribourg was one of the photography capitals of the world. Now, the community views itself as a rural dairy production community, and has lost the memory of Ciba AG. As those who remember and love the medium are growing fewer, compiling and creating a timeline will serve as a way to prevent the deterioration of knowledge from going any further.

1.3 State of the Art

Little research has been done in the past towards assembling a history of Cibachrome in an organized manner. While there have been many exhibitions that include photography printed using the Cibachrome process and artists who sold Cibachrome prints, the process itself is not usually highlighted as something to be paid attention to. During our viewing of different photography exhibitions, it was noted that the printing method would not be labeled alongside the artist and work title.



Figure 1.3: Marly Innovation Center ("History of the Site", 2023).

Fortunately, our sponsor Dr. Rita Hofmann currently works with the Cibachrome Association to prevent the dissolution of Cibachrome's history. In 2014, the association was founded and sponsored by the Marly Innovation Center to collect and enhance the rich heritage of Tellko, Ciba, and Ilford (Figure 1.3). *La maison Cibachrome* is a museum founded in Marly shortly after the Cibachrome Association's founding that showcases photographic and industrial objects throughout Cibachrome's history ("History of the Site", 2023).

Previous WPI projects relating to Cibachrome have involved methods of informing the public on Cibachrome history. Contributions include creating an industrial archive in 2018, a Wikipedia article on history and basic technology in 2019, and a virtual showcase in 2021. These projects have raised the interest of Cibachrome in Fribourg museums, researchers in photographic history, and Memoriav, which is Switzerland's national network for the preservation of the country's audiovisual cultural heritage ("Memoriav", 2023).

1.4 Approach

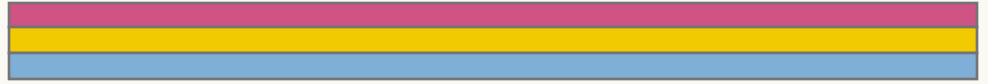
In an effort to learn about Cibachrome's impact in Europe, our group looked to use resources around Switzerland. We visited Swiss museums to examine Cibachrome prints on display and determine the most effective methods of exhibition. In addition, we interviewed prominent Cibachrome experts all over the world. Interviews included artists, conservators, curators, and gallery directors. The end goal of these interviews was to gain a perspective on the current state of Cibachrome and gather information on the rich network of artists of the 20th century.

Compared to former WPI projects on Cibachrome, we pivoted away from researching the technology that goes into Cibachrome practices, and towards the prominent people in its history. While technology is an important aspect of the medium, the artists who work in it, the curators who collect it, and the preservationists who maintain it are equally important. The past projects focused largely on what makes a Cibachrome print technically unique, and we filled a gap in research about cultural history.

Along with the Cibachrome Association at the Marly Innovation Center, we researched the people that made the Cibachrome printing method so notable. In the age of digital photography, celebrating and recognizing the film photographers who defined Cibachrome was our contribution to keeping the memory of the medium intact.



METHODS



2.1 INTRODUCTION

To aid the Marly Innovation Center in preserving the history of Cibachrome, the goal of our project was to research the historical significance of the medium in two ways. The first was to identify and list prominent Cibachrome artists from the initial manufacturing to present day. This list was instrumental in understanding what artworks were popular throughout history, constructing our second list of prominent Cibachrome artworks. Producing these lists of both artists and artworks provided context into historical patterns seen throughout Cibachrome's development. These lists are important as they lay the framework for a future exhibit timeline highlighting patterns seen throughout history.

To reach our goal of producing the final deliverables, our group developed a list of objectives to accomplish throughout our research period. Each objective was accomplished through methods of content analysis, interviews, and participant observation, which provided different sources of evidence for our findings.

2.2 OBJECTIVES

1 **Analyze the current state of Cibachrome preservation and display.**

First, it was important to assess where Cibachrome is currently being displayed, preserved, and if people know where to find it. We took two methods to assess the current state: preliminary research on the internet and content analysis of what we could find, and then interviewing our sponsors and field experts to see what they know about the current state of Cibachrome display, and who to continue asking.

2 **Curate and compile a list of Cibachrome artists and artworks.**

One of the main deliverables for our project was to compile a list of Cibachrome artists and artworks. The list was broad, considering artists and artworks from different cultures and eras of Cibachrome print making. This overarching list was useful in identification of many Cibachrome artists and artworks that have potential for future use in any exhibits or research.



Figure 2.1: Christopher Burkett, *Swirling Sage* (Burkett, n.d.)

3 Understand concepts that go into making an effective exhibit

This objective, although we will not be producing a physical timeline, laid the foundation for future exhibition curators to produce an effective exhibit that highlights the historical impact of Cibachrome. By ensuring that we had a strong base knowledge of how exhibits and galleries chose artworks and artists, we could make smart choices as to what would be on our curated list. Additionally, we were able to provide effective recommendations for the potential exhibit, such as what information about Cibachrome would be included and how.

4 Design a timeline of Cibachrome art.

The future goal of the Cibachrome Association is to create an in-person exhibit of Cibachrome artwork at the Fribourg Museum of Art. While this is not within the scope of our current project, the final, digital timeline was still developed in a way to be easily converted to a physical one. First, the list was curated to be shorter and more selective, more manageable for an exhibit. Then, corresponding artworks were chosen, and the timeline was formatted in Canva to be displayed to potential museum curators.

2.3 CONTENT ANALYSIS

We used content analysis to first understand the broad scope of this artform's history, then to find information on specific artists. First, we gathered a list of artists and their works from sources available to us. This included artist websites, online galleries, as well as literature review. We were able to identify celebrated and prominent artists through this research, which was a good start for creating our preliminary list and timeline. Some of the more fringe artists or non-American artists were not as easy to find as there was limited written information about them on our research platforms.

The goal behind gaining a list of prominent Cibachrome artists through the variety of different methods was to ensure that we weren't just finding artists from one place or period. We were able to obtain 163 artists from different backgrounds and technology eras of Cibachrome.

We quickly wrapped up this method of background research, since it seemed we had exhausted our options without further contacts or help from our sponsor in finding names. Our sponsor, Dr. Hofmann advised us that the internet was not providing us with all that we would need. This is when we moved on to conducting interviews with field experts to find further contacts and assess the state of Cibachrome displays in museums.

2.4 INTERVIEWS

We conducted interviews to help us find the network of professionals who have worked with Cibachrome in their career and would have an interest in our project.

First, we interviewed our sponsor Dr. Rita Hofmann to collect a list of individuals that she has previously worked with and recommended us to speak with. She was able to give us contact information, necessary background of potential industry figures, and the privilege to use her name when reaching out to her colleagues.

With the guidance of our sponsor, Dr. Hofmann, the group compiled a list of Cibachrome experts located all around the world. We reached out to a total of sixteen professionals and ended with positive responses from seven people. Several more simply provided us with more contacts or artists, or responded to inform us that their area of expertise did not cover Cibachrome. After reaching out, we scheduled and conducted calls with conservators, gallerists, and artists, which covered all major bases of communication we originally aimed for. Most interviews were held over Zoom, allowing us to speak to professionals in the United States and other parts of Europe.

When speaking with museum curators, we asked which artists they have worked with and what time periods are predominantly displayed in exhibits. In addition to gaining more artists for our overarching list, we also gained insight into how artists used Cibachrome to convey their specific message to their audience.

Talking to preservationists and chemists, we asked about what differentiated Cibachrome from other types of conservation work. We largely discussed the safest ways to display Cibachromes and any difficulties there would be in keeping them in good condition.

We then spoke with gallerists and artists to discuss what makes Cibachrome appealing to a general audience, value of the medium, and other galleries and artists for us to contact. The interviews gave us a deeper understanding of what art enthusiasts look for when observing Cibachrome artworks. Their approaches to exhibition and display aided in the development of our proposals for a future museum exhibit in Switzerland.

Table 2.1 shows the general questions that we followed for different categories of interview subjects as we planned to speak with them; these questions could be modified and flexible as the conversation went along and were broken down into the three subcategories of general, representation, and motivation.

Table 2.1: Sample questions for different interview categories .

Curators	Preservationists	Artists/Gallerists
What Cibachrome prints are available at your museum?	How have you worked with Cibachrome in your professional life?	Was there a collection of prints you made that you felt was a turning point?
Have you faced any technical problems with your Cibachrome prints?	How can someone identify Cibachrome prints made in the analog versus digital era?	Where have your works been displayed?
What do typical Cibachrome restoration methods look like?	How did Cibachrome technology change over its lifetime?	What made you choose Cibachrome as your method of photography?

2.5 PARTICIPANT OBSERVATION

Our group went to six Swiss museums to get an understanding of how museum exhibits can best display different types of art and convey information. The museums we visited contained galleries ranging from photography to glass blowing, with wide ranging layouts. In non-photography exhibits, we focused on the variations in size, shape, and subject matter of the pieces chosen. Looking at how photos were captioned helped us determine the best option for a potential Cibachrome exhibit. In photography exhibits, we additionally focused on which artists were recurring throughout museums and what years the prints were made. We also looked at online galleries displaying Cibachrome prints and news articles advertising upcoming exhibits. This helped gain insight into which artworks were most valued, because those images were used in news articles by museums to gain exhibit exposure.

Observations efforts also showed us what was on display, and what design aspects were most prominent. We looked into specifically what museums contained Cibachrome prints to first identify commonalities. Below is a list of museums the group attended during their time in Switzerland (Figures 2.2-2.7).

Fondation Beyeler, Basel



Musée de l'Elysée, Lausanne



Fotomuseum, Winterthur



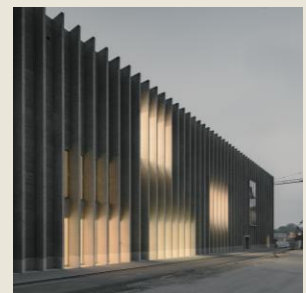
Mudac, Lausanne



Musée d'Art et d'Histoire de Fribourg



Musée Cantonal des Beaux- Arts, Lausanne



Figures 2.2 – 2.7: All of the museums the group visited. (2.4, Gafsou, M., 2024; 2.7 Veiga, B. 2024).

2.6 LIST CURATION

With the preliminary, comprehensive list created through Objective 2, we created a set of criteria to determine which artists would be included within our final timeline. These guidelines included several to first separate the artists into three, listed below in Table 2.2. These are not a judgement on the artist's quality or importance, simply a reflection of the information we were able to gather. They were necessary to deduce which artists, those of "high relevance" would be included in the timeline.

Table 2.2: Different categories of artist relevance and corresponding criteria.

Relevance	Criteria
High	<ul style="list-style-type: none"> •Discussed them in an interview with Rita or with a curator, gallerist, etc (prominent factor) •Has a number of exhibitions and pieces that have been featured •Cibachrome is the majority of their work •Has a unique approach to printmaking not seen in another artist
Medium	<ul style="list-style-type: none"> •Has been frequently exhibited •Has a number of Cibachrome works available on the internet •Has a distinct style or approach to Cibachrome
Low	<ul style="list-style-type: none"> •Few exhibitions •Very few Cibachromes we could find •Not much publicized information about their use of Cibachrome

We built the final set of necessary components through our previous interviews and content analysis, as well as in collaboration with Dr. Hofmann's advice. For example, it was her decision to only include fine art photography in the curated timeline, as opposed to photos used in advertisements or journalism. This narrowed down the pool of contending photographers and focused the scope of a potential future exhibit. The criteria allowed us to have a measured approach to determining which artists would create the most effective display of Cibachrome's history.

2.7 TIMELINE DESIGN

Once the final list was assembled, we turned to the results from our participant observation to pick specific artworks and create an overarching design for the timeline. The artworks were selected based on criteria developed largely through our participant observation sessions in different museums. With the information gathered on what images drew people the most to an exhibit, a set of guidelines was developed to help us pick compelling images.

The artworks selected needed to fulfill the following criteria. First, they needed to be featured in a prominent gallery or galleries. Alternately, it could have been mentioned specifically by a preservationist, curator, or the artist themselves online. Additionally, the artwork needed to represent the virtues of the Cibachrome printing method in some way. This could mean showing a vibrant display of color (particularly reds), or an interesting use of light. This method of selection produced a diverse selection of artworks that represented the breadth of Cibachrome.

Once the artists and their respective works were finalized, a final timeline was designed in Canva for purposes of visual display.

2.8 CONCLUSION

The methods used to gather information on Cibachrome often succeeded in proving just how poorly digitally documented the history of the medium is. Our interviews were successful in providing information that could not be found on the internet in prior research; big aspects of the printing process and major artists were not previously discovered. These firsthand accounts heavily influenced our results, which aim to reflect the parts of Cibachrome's history we could not initially find ourselves.



RESULTS



3.1 FINDINGS

After conducting interviews, observing museums, and researching existing literature, our group developed the data gathered into four key findings. First, Cibachrome is currently not well documented. Second, Cibachrome was a unique medium, with some qualities that made it loved by certain artists, and some that led to its discontinuation. Then, since its discontinuation, museums have used similar techniques to preserve and safely exhibit Cibachrome prints for as long as possible. Finally, based on our observations of other exhibits, we make recommendations for creating an effective Cibachrome exhibit that will preserve the medium's significance.

Based on these findings, we created a spreadsheet of all Cibachromes artists and artworks we discovered. This spreadsheet has been curated into a timeline of prominent creators, which could be used later for an exhibit. Additionally, the spreadsheet has been transferred to a simple database we created, as an example of work that could be later done. We recommend that a future project group continue work with the prototype database we have created.

3.1.1 Finding 1: Current state of Cibachrome is not well documented online or in museums.

Before anything else, the difficulty of identifying Cibachrome prints was immediately obvious in our research. While prior knowledge and specific techniques helped us find information and relevant artists, the lack of documentation and poor labeling of photos was a large roadblock. This was a valuable finding, as it gave evidence to the claim that Cibachrome as a medium needs a permanent, easily accessible bank of information.

Through content analysis and literature review, we quickly found the Internet to be ineffective for searching for information on Cibachrome art and artists. Cibachrome is a process older than the Internet, and a field largely populated by professionals who did not grow up in a digital age. Many artist websites were incomplete, out of date, or filled with empty links that did not go anywhere. Additionally, there were few primary sources of works from the artists themselves, leaving largely unreliable secondary sources. If those primary sources did exist, their photographs were often not labeled with the specific printing technique we were looking for.

However, when searching for specific results with prior knowledge, such as "artist name ____ photography" or "artist name ____ cibachrome", the internet could be helpful for finding specific Wikipedia pages, articles, and artist websites. This led us to more individual art listings and exhibits, enabling us to verify information we had learned firsthand. For example, artists that were not prominent enough to have their own Wikipedia pages could be identified through auction listings, which could then be followed to their own sites that did not appear from search engines.

Ultimately, we relied on names given to us from books or interviews as a starting point. Search engines could return useful information once prompted correctly, but a large amount of prior knowledge was required to do so. This creates a high barrier of entry for anyone looking to learn in depth about Cibachrome.

Even in person, among professional organizations, it was often difficult to identify Cibachrome prints. At our visit to Fondation Beyeler in Basel, Switzerland we saw an exhibit centering Jeff Wall, a prominent Cibachrome artist. From prior research, we knew that the lightbox prints presented were Cibachromes, but they were not labeled as such. Many people visiting the exhibit would not know the specifics of his technique, which contributes to the lack of knowledge about the Cibachrome process. In Fotomuseum Winterthur, there was a singular Nan Goldin Cibachrome print, and the only other Cibachrome we viewed in an exhibit.

In the Fribourg Cantonal Museum of Art, despite Fribourg being the home of the Cibachrome Association and place of manufacturing, there was no display of prints. While museums rotate through artworks and cannot display all they have at once, it is surprising that this local photography technique was not featured.

There is no malice or intentionality in any of these cases. The Internet is often unreliable, many artworks do not have the specific techniques behind them, and not all Cibachrome prints can be on display at once. However, all of these realities make it so there is no one place where Cibachrome prints are secure and central, where information about them is easily accessible. As is, Cibachrome is not adequately represented for the role it played in early color photography.

3.1.2 Finding 2: Artists loved working with Cibachrome for its unique compositional qualities, but it posed unique challenges that ultimately led to its discontinuation.

Despite a lack of representation, digital or otherwise, Cibachrome is dearly loved by those who used and worked with it. For some, such as artist Christopher Burkett, it is not in spite of the difficulties in printing, but because of them. For others, the process was worth it for the vibrant colors and long-lasting prints produced. Either way, Cibachrome had compositional qualities that distinguished it from other photography methods; and gave it a unique place in color printing.

In nearly every interview with a Cibachrome professional, the topic of the prints' vivid reds came up. It managed a depth of color that Kodachrome and other competitors could not reach due to the unique layering of gelatin and dyes in the film paper. Cyan, magenta, and yellow dyes are all featured in film paper, but Cibachrome layers with cyan on bottom, then magenta, then yellow on top. Other papers have these colors reversed, and filter the light differently, arguably less effectively. Christopher Burkett maintains after four decades with the material that there is nothing else that compares to the way Cibachrome captures light. The Nan Goldin print *The Sky on the Twilight of Phillippe's Death* (Figure 3.1) is an excellent example of the vibrant colors possible, which we viewed at Fotomuseum Winterthur.



Figure 3.1: The photo is Nan Goldin's "The Sky on the Twilight of Phillippe's Death" print taken in Winterthur, Switzerland in 1997 ("Artnet", n.d.).

Another hallmark of these prints is the high gloss surface, which drew many artists to the medium. Despite the attractive appearance, however, this made the surface easily damaged; Fingerprints and scratches are the most common issue that museums face.

Though Cibachrome was rewarding to use for many artists, it was a tricky and precise medium, and therefore not user friendly to non-professionals. Even slight changes in the chemistry could be easily noticed. Christopher Burkett recalled a time around 1998 during the time when Ilford had just transitioned from analog to hybrid/digital paper. Since Burkett only wanted to use analog, the slightly different chemistry in the old versus new paper caused some “weird behaving” emulsions. Jean-Noël Gex, a support technician that worked for Ilford for many years, would send emulsions samples for Burkett to test and share his results. Gex with the help of Burkett’s results worked to refine the material. The final material was superior in many ways, but different.

Even with this new superior material, there was additional technique involved due to the lower contrast of the new emulsions. Burkett learned new techniques from Ilford on how to increase the contrast of the Cibachrome material during the printing process. He learned how to get more tonal separation and luminosity from the image. Artists using the Cibachrome medium must become experts with the materials to get the precise images they want.

In addition to the precision involved in the printing process, it takes a long time to print with Cibachrome. When Burkett prints his photos, he spends upwards of 13 hours a day in the darkroom to make about ten prints. Additionally, Cibachrome was expensive to print, especially by the end of its production. According to Julia Christopher, CEO of Photography West, in the early time of Cibachrome manufacturing in the 1980s and 1990s, you would be able to buy 25 sheets of Cibachrome paper for about \$265, and a liter of the chemistry was about \$65. By the end of Cibachrome manufacturing in the late 2000s, 10 sheets of print paper cost \$1,200, and the chemistry could be an additional \$1,000.

Another issue with Cibachrome was the fact that the chemistry and dyes required to process Cibachrome prints were toxic. Artist Garry Fabian Miller found out he had developed bladder cancer in December 2020, which is why he decided to leave the darkroom. After working with Cibachrome for 50 years, spending almost every day in the darkroom exposed to the benzidine in the Cibachrome printing chemicals which caused the cancer. In an interview, Miller stated, “the end of the darkroom is basically the end of photography, which is a noxious, dangerous industry. I’m a casualty of it” (Gibson, 2022).

In speaking with Jean-Noël Gex, we found out that producing Cibachrome materials was causing a mass amount of pollution. To manufacture the dyes unstable small molecules like chloride and sulfur were used. Once the small molecules were locked into the thick gelatin layers (about 20 grams of gelatin in the front, 15 g of gelatin on the back) they formed stable big molecules making the paper safe to use. The big molecules formed a new issue, however, as they were so stable that it created pollution as Cibachrome prints and paper can never biodegrade. This caused the last batch of Cibachrome dyes in 2012 to be manufactured in India, since the process no longer met the manufacturing regulations of Switzerland.

During Jean-Noël Gex's time as an Ilford chemist, he looked to help improve waste, time, and ecology of the manufacturing process. Waste was reduced from 1.6 liters of chemistry to 600-700 mL per printing process through increasing the reaction temperature and concentration of materials. This new change was difficult to introduce to the market and wasn't launched until five years later. In addition, the machine used to process the material took another year and a half to make. Gex would visit labs to convert them to the new chemistry, which was difficult because the smaller amount of chemistry needed a more precise process to work properly.

Regardless of the numerous challenges posed by the Cibachrome process, many artists were attached to its worthwhile qualities. Unfortunately, with the world of photography converting to digital, there were simpler, less pollutive, and less expensive ways to take photographs which is likely a large cause of why Cibachrome was discontinued.

3.1.3 Finding 3: Museums use many preservation techniques to ensure the Cibachromes in their possession last as long as possible.

Through interviews, our group spoke with preservationists and conservators including Kristina Blascke, Sylvie Penichon, and Nora Kennedy about preservation efforts. Their insight into their works and lifestyles provided us with key information regarding the preservation of Cibachrome.

The Cibachromes that museums obtain are generally found to be in good condition. Individuals who collect and hold these prints typically understand their value and ensure they stay as new as possible. Usually, the prints come into the galleries in such good conditions, the main job of the conservators is to maintain these conditions and prepare pieces to loan to other museums and exhibitions.

Although one of the most common methods of storage is the use of darkrooms, methods like cold storage and freezer storage serve a similar purpose. The conditions in these storage units are optimized for each print and allow for little to no weathering for long amounts of time. Nora Kennedy at the Metropolitan Museum of Art says that typically pieces come with two separate prints. This means that while the original pieces are used for display, the duplicates of those originals remain in freezer storage to make the piece "last." When the museum determines that the original has started degrading, they will thus replace the original with the duplicate from storage, destroy the original, and present the backup as the piece of art. Although it is convenient it sometimes brings to question the implications of artist intent, often undermining the authenticity of a prints original value. These topics are debated in the conservationist and art world and will continue to be improved upon as technology increases over time.

When displaying prints, there are several rules to consider beforehand. Curators avoid using face mounting prints or preserving them in glass to prevent damage, accidents, or scratching. Also, pieces are only on display for about 3-4 months at a time. This allows them to maintain their color and reduce wear. These pieces will be cycled about every four years, giving enough time to be seen by the public every now and then. Pieces are monitored at regulated temps of around 60 F and about 40% humidity levels, according to Sylvie Penichon. In some cases, color spectrometry is taken to see if there's any chemical fading or decomposition during display. This is a large factor in determining whether art should be removed from exhibits.

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According to Sylvie Penichon, the main issues museums see with Cibachromes are surface abrasions, scratches, and fingerprints. Not only are the surfaces easy to scratch, but little work can be done to reverse the effects. This means storage and handling conditions must be optimized to avoid any issues along the way. To prevent this, pieces are stored under non-abrasive materials, such as microfiber cloths. Pieces are also handled with gloves to minimize the risk of fingerprint damage.

Private collectors and gallerists are more likely to run into other issues with Cibachromes. Face mounting, in particular, ruins pieces and can make the photo inseparable from the glass. Photos can also shift and fade from direct sunlight exposure over the years, especially if being displayed in someone's home without the knowledge of this. These issues are difficult to correct as the glossy finish on top of the prints bars conservators from touching the photograph itself. Another common issue comes with private collectors, who are less likely to know how to properly conserve the work. Either they are unfamiliar with Cibachrome's properties or lack the necessary equipment conducive for retouching.

When it comes to restoring Cibachrome prints, museums have more liberties to retouch the pieces that they own as they see fit. The same cannot be said of gallerists or private collectors who may need permission from the artist. Especially with many artists either being retired or passed away, there are concerted efforts to ensure artists messages are still being effectively conveyed.

Museums tend to take the "less is more" approach to restoring pieces. To retouch a photo, museums use pigments rather than dyes because of its reversibility (Figure 3.2). Photos are restored by painting over the flaked away sections. The point is not to restore it to originality, but to give the piece the full context, and be clear which areas were restored.



Figure 3.2: Cibachrome retouching colors from Atelier Reding.

3.1.4 Finding 4: A permanent exhibit is needed to preserve Cibachrome as a medium.

It was evident during our observations at museum sites that Cibachrome prints were scarce. Due to the lack of Cibachrome representation in museums and overall public knowledge of the medium, we have found that the best way to educate the public and showcase this art is through a permanent exhibition dedicated to Cibachrome featuring artists from the 1960s through the 2000s.

An exhibit about Cibachrome's history should feature various artists and works, rather than a special exhibit for one featured artist. Many current exhibits are curated collections of works focusing on the artist to be celebrated. We aim to celebrate the medium first and foremost, then the artists who used it.

Cibachrome prints can be organized into many different categories. When looking into the curation of a timeline, several factors need to be considered when deciding what prints and information will be displayed over others.

The most straightforward method would be to group the information by the decades in which artists worked. The medium was in production between 1963 and 2012, so it may be beneficial to work on a timeline of when they were produced and exhibited to the public. The segmentation from the use of analog capture to digital capture brought on a new wave of artists to Cibachrome in the early 90s. Digital technology allowed for more vibrant photos, many of which paired nicely to Cibachrome's glossy finish. There was a sense of ease to the use of digital photography, which was instrumental in inspiring a new group to experiment. There is a fair distinction between prints before and after the early 90s, breaking up artists between the use of digital and analog photography styles.

Although photography covers a wide range of topics, several prominent themes are displayed through the medium. Poverty and culture were prominent, especially in the 1990s. Photographers would travel to war-stricken areas; or even impoverished cities to capture the pain that was endured. However, artists also looked to photograph landscapes and architecture throughout the world. Cibachrome printing accentuated the beauty of nature; and brought out the natural color of the artworks.

Even with all these categories, there are still artists that stand on their own in the world of Cibachrome. Artists like Christopher Burkett, who have developed their own printing styles tend to be recognized separately for their contributions to the medium. The Jeff Wall exhibition at Fondation Beyeler featured solely the works of such an accomplished Cibachrome artist. We observed prints of many types ranging from culture; to still life; to even landscapes. A feature of his entire collection allowed the viewer to understand when and how that specific artist operated.

There were a few approaches that boded well for engagement. At the Fotomuseum Winterthur, the larger *A Show of Affection* exhibit allowed museum-goers to take a hand copy of the exhibit guide or scan a QR code and read along on their phones in their preferred language. The guide was an introduction to who some of the artists were, as well as the motivation behind the pieces chosen for display. Especially for a medium like Cibachrome, a short, written introduction on paper or online would allow for an introduction to the technology behind such a complex medium, to gain the appreciation of the artists who used it.

We also observed museums who integrated the historical blurbs within the exhibit itself. The Cindy Sherman exhibit at Platforme 10 was a rectangular room, lined on the outside with 14 prints (Figure 3.3). The only writing in the entire exhibit, however, came at the front of the room. On the wall when you walked in was a detailed paragraph describing the likes of Cindy Sherman regarding her photography history, as well as the motivation for her specific type of Cibachrome printing. Most exhibit viewers were inclined to read this blurb either on their way in or out. The information was instrumental in guiding one's understanding of Cindy's approach to her prints, cementing a deeper understanding of why exactly those prints were being displayed.



Figure 3.3: Uncaptioned Cindy Sherman exhibit at Platforme 10.



Figure 3.4: Tuggener's The 4 Seasons Book (Tuggener, J. 2024)

The *Jakob Tuggener - The 4 Seasons* exhibit in Fotomuseum Winterthur also represented a similar strategy (Figure 3.4). When you opened the doors to the room, a wall containing a long summary to Jakob Tuggener stood right before you. Most viewers who walked into the room took a few seconds to grasp the information. Further examination of the wall helped allude to the fact that the entire exhibit was one large timeline piece, which was not easily observed without sufficient context. Although the reading was quick, it provided the viewer with an understanding of what they were to observe right before they observed it.

As previously mentioned, Cibachrome prints are quite susceptible to the conditions they are placed in. Sunlight exposed to prints can cause fading and discoloration. A Cibachrome exhibit would benefit from the use of artificial lighting. It would allow museum curators to use lights optimized for both viewing and preservation conditions of the Cibachrome prints. Although the prints would not be on display for longer than a few months, maintaining a prints natural value is important for long term viewing. Prints would also be able to be shown any time of day, whether it be in the early morning or even when the sun sets. With such vibrant colors, a more neutral background is conducive for the display of Cibachromes. White or gray walls pair nicely with the prints and allow for the colors to pop out significantly.

All these recommendations follow a format that we observed in other photographic museums. We recommend that this future exhibit is housed in Fribourg to honor the history of Ciba AG.

3.2 Limitations of Our Research:

When starting our research, we came upon a few limitations when finding sources. Although these issues did not ruin the scope of our work, they did hinder the project operations to an extent.

Firstly, Cibachrome is a process and class of a film photography medium, so that it can appear under a variety of names, e.g., silver-dye bleach or Ilfochrome. The variety of names made it difficult to understand which are Cibachrome works that we are interested in, and this is not well documented.

Additionally in our research, we came across some incorrect documentation of artist's names attached to works. Many artists are international, and names have been misspelled or mistranslated, or credited incorrectly.

The internet was not always reliable in our preliminary research. As more secondary sources are published and researched, primary sources and works are overwritten with these more recent websites. IP Addresses and web filters are country based. As a result, when researching Cibachrome artists while in the United States, we found few photographers on Google. While in Switzerland, new websites in French and German had become more readily available upon searching. This "Google Bubble" has proven tricky. Some artist websites are obsolete, outdated, or no longer function. Since the medium grew popular in the 80s, many artists have since passed. Families of these artists maintain these websites and archives if they are still available. This could lead to a loss of artist intent or misinformation as time passes, as the website is not updated by the original source.

Also due to the discontinuation of Cibachrome as a medium, few people still work with it today. This has proven tough to find Cibachrome contemporaries other than these museum preservationists. Differentiating between photojournalists, fine art, and commercial art is a fine line. The most documented sources are photojournalists and commercial photographers who had their work printed in magazines. Our focus is fine art that would end up in a museum. This further blurs the lines between photojournalists and fine artists when famous photos from journalists are also on display in museums.

Furthermore, the fine art we would like to focus on is largely privately collected and hard to track down until it goes on sale. Once a piece is part of a private collection it may never be seen again. It also runs the risk of being damaged from improper care and maintenance, ruining its longevity. Restoration and preservation efforts run the risk of manipulating an artist's intent and originality.

3.3 Deliverables and Recommendations

As discussed in previous chapters, our group formulated a non-comprehensive list of artists. To achieve this, we created a spreadsheet of all the Cibachrome artists we could find (Figure 3.5). The spreadsheet includes information on the artist's start and end dates of practice, location, prominent works, exhibitions, and photography methods (e.g., manipulated vs. not manipulated). There is also a section stating the relevancy of each of the Cibachrome artists, ranked high, medium, or low. Our final list contains 163 Cibachrome artists from all over the world, although there is a more concentrated number of artists from Europe, specifically France, and the United States. We were able to use this overall list to complete our other deliverables.

First Name	Last Name	Relevance	Start Date	End Date	Prominent Works	Prominent Exhibitions	Digital/Analog
Mac	Adams	Medium	1982	2010	"Post Modern Tragedies" (1982-2010)		Unknown
Javier	Baldeon	Low	1994	1994	Lavendera (Washing Machine)		Unknown
Bruno	Barbey	Low	1968	2016	Portugal (1993) Essaouira, Maroc (1985)		Analog
Alain-Gilles	Bastide	Medium	1968	1983	La main sur les genoux (1981)	Sanguine / Bloodstone (1981)	Analog
	BazileBustamante	Low	1982	1987	Le RLVC (1984)	Bazile-Bustamante: Galerie Crousel-Hussenot (1985)	Analog
Cecile	Blaise	Low	--	--			Digital
Bernard	Boisson	High	1984	Present (?)	La Forêt Promordiale (1996) Primordial Nature (2008) (Republication of 1996)		Unknown
Christian	Boltanski	Low	1960s	Present	Composition théâtrale (1981) Image modèle (1977)	Autel de Lycée Chases (1986-1987)	Analog
Agnes	Bonnot	Low	1986	Present (?)	Sans Titre (1982) (lots of these photographs)	Agnes Bonnot. Chevaux (1989)	Analog
Philippe	Bordas	Low	1990	2022	Africa with Bare Fists (2004) (Book) Solaar: Fifteen years of my life in the suburbs of the world (2006) (Book)	Les Chasseurs du Mali (2012)	Digital
Daniel	Boudinet	Medium	1973	1990	Sculpture dans un parc (1977) Rue, passage et effet lumineux (1977) Rue et impasse (1977) Place du Trocadéro, Paris (1978) Décrochement (1979) Vue nocturne d'une pile de pont et d'une statue illuminée (1985) Nénuphars (1988)	Bagdad sur Seine (1973) Fragments d'un labyrinthe (1979)	Analog

Digital/Analog	Manipulated/Not Manipulated	Themes	Artist Location
Unknown		Still life, household objects	United States
Unknown		Still life, objects	Spain
Analog	Not Manipulated	photojournalism	Morocco, Switzerland, France
Analog	Not Manipulated	portrait	France, Latin America
Analog	Not Manipulated	furniture	France
Digital	Manipulated	Art	France
Unknown		Nature	France
Analog	Not Manipulated	political commentary	France
Analog	Not Manipulated	horses, portrait	France
Digital		Cycling	France
Analog	Not Manipulated	architecture, landscape	France

Figure 3.5: Example of our overarching spreadsheet of Cibachrome artists.

We have curated a timeline of prominent Cibachrome artists and artworks (Figure 3.6). Artists that had a high or occasionally medium ranking of relevancy were included in the timeline. Our timeline contains 20 artists and is organized chronologically by analog (1960s-1990s), hybrid (1990s-2000s), and digital (2000s-2010s) technological eras of Cibachrome photography. Years are designated by prominent Cibachrome artworks, and information is provided on the artist and the artist's location.

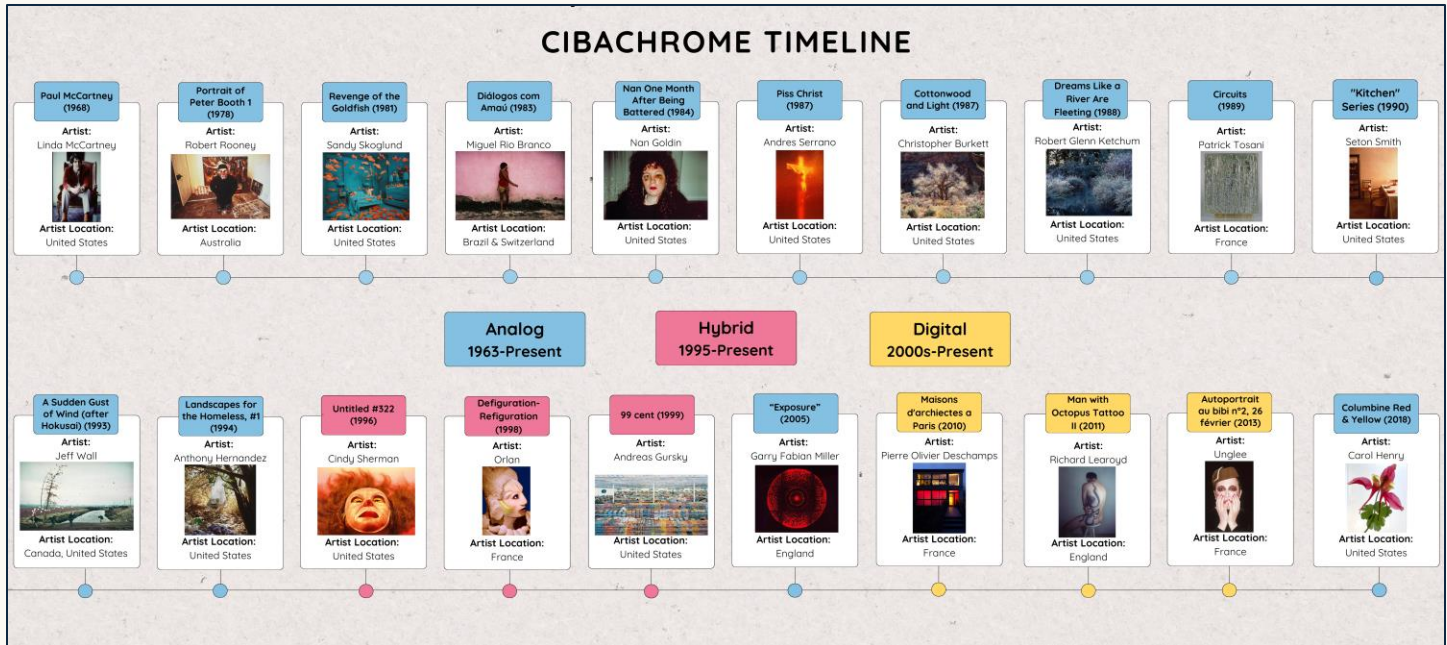


Figure 3.6: Our designed timeline of prominent Cibachrome artworks.

We completed a prototype database containing the information in our non-comprehensive list (Figure 3.7). Our recommendation for the future of this project is to create a an open-source database, to allow artists, museums, and collectors to input Cibachromes they have in their collections.

Cibachrome List							
Full Name	Start Date	End Date	Prominent Works	Prominent Exhibits	Themes	Relavence	
Frank Horvat	1950	2020	Gitanes (1990)			Low	
Facundo De Zuviera	1980	1996	ESTAMPAS DE BUENOS AIRES (2014)	Estampas porteñas (2023)		Medium	
Stephen Wilkes			"The Ellis Island" Collection "The Bethlehem Steel" Collection			Medium	
Bernard Meyers	1978					Low	
Andreas Gursky	1970		99 cent (1999) (important) Los Angeles (1999)	https://www.andreasgursky.com/en/exhibitions/solo-exhibitions		High	
Rodevick Mc-Nicol	1982		Phoenix Park Port Pirie South Australia (1982)	Life and Time (2015)		Low	
Steve Murez	1976		Famille (1983) Isabelle Adjani (1984) Coluche Photographie a canal (1985)	Le Temps d'un Mouvement (1987) Du Cote de Chez Moi (1994) Ni verre ni sage (2007)		Low	

Figure 3.7: Our prototype database of Cibachrome artists and artworks.

Inspiration for this Cibachrome database could come from the Daguerreobase (Figure 3.8), which includes information on the whereabouts of daguerreotype pictures, a type of photography used in the mid 1800s. The Daguerreobase contains collection information from many museums, including the Rijksmuseum in Amsterdam and Museum of Decorative Arts in Prague (*Welcome to Daguerreobase*, n.d.). A future group could continue the prototype database we created or create a more sophisticated alternative using the overall artist spreadsheet. An open-source database could ensure Cibachrome medium is not forgotten, as it would be available to the public and would give a better idea of the vast amount of Cibachrome prints and artists that are unknown to most of the world.

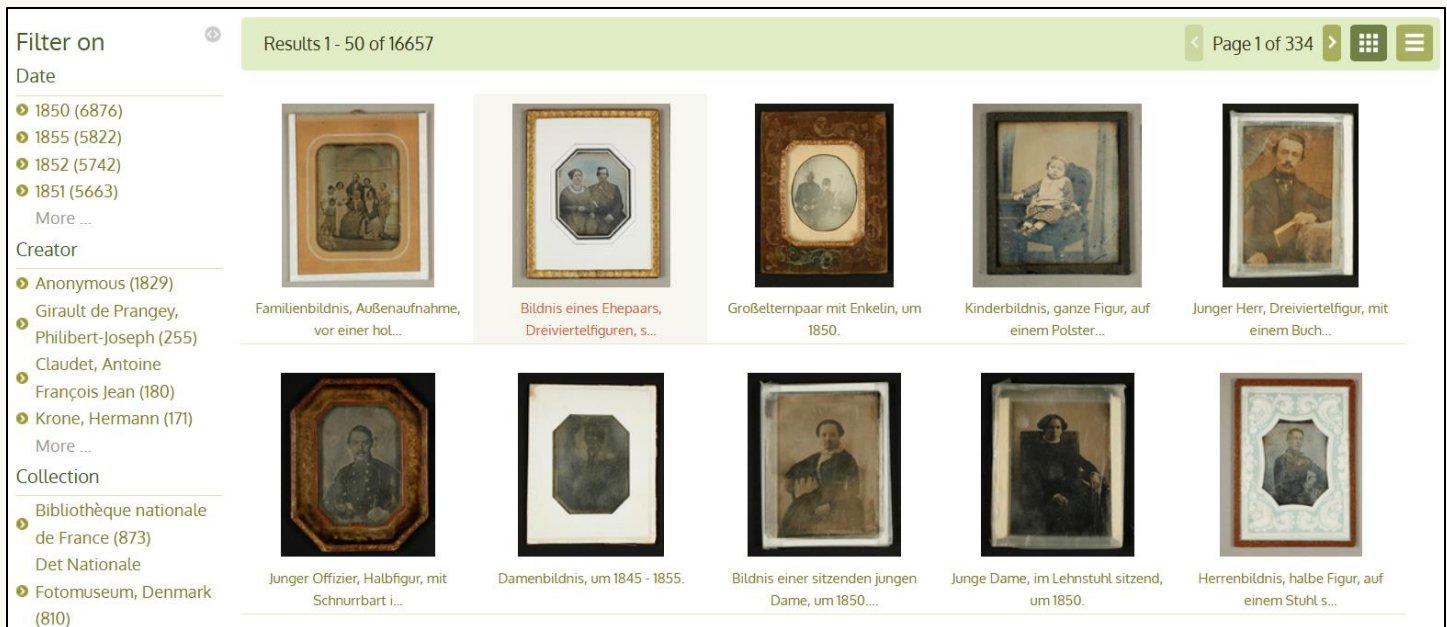


Figure 3.8: The Daguerrobase home page (*Welcome to Daguerreobase*, n.d.).

CONCLUSIONS



Due to the discontinuation of Cibachrome, we believe that it is in the best interest for museums and collectors to preserve and document the Cibachromes that they own and come across. The photography medium is important, as Julia Christopher said, "you can't take the exact same photo twice". Cibachrome is a unique photography medium that is important for many people. Christopher Burkett said, "There is nothing as good as Cibachrome, nothing as luminous. It is breathtaking to see the print come out of the machine, totally gorgeous every time." While Cibachrome is no longer in production, it must not be forgotten. Between proper measures being taken to document the Cibachrome prints in both museum and private collections, and proper education to the public on the technology and significance behind Cibachrome, this medium will continue to exist far beyond the 2020s.

Below are some of the images we selected for our final timeline (Figures 4.1-4.3).



Figure 4.1: 99 Cents, Andreas Gursky (1999) (Gursky, A., 2001).



Figure 4.3: *Revenge of the Goldfish*, Sandy Skoglund (1981) (Skoglund, S., 1981).

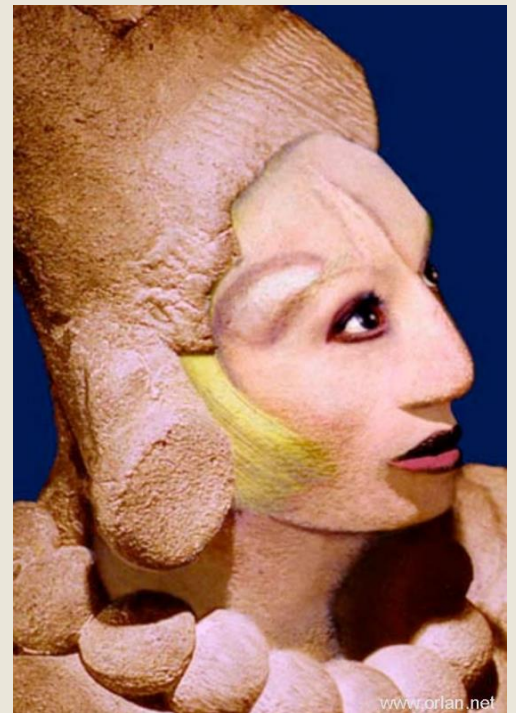


Figure 4.2: *Defiguration - Refiguration*, Orlan (1998)

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