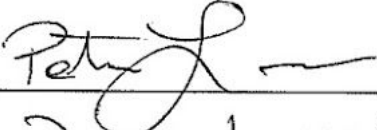


'DO IT YOURSELF': *ARTIST-RUN FILM LABS IN THE AGE OF DIGITAL MEDIA*
by

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A THESIS

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Abstract

Over the past 40 years digital media technologies have undergone rapid development, placing instantaneous communication at our fingertips while simultaneously pushing predecessors of today's technology towards obsolescence. Globally, within the realm of film there is an inverse relationship between the development of digital and analog technologies. So, the further means for digital video production develop the less accessible the means to work on celluloid are. As these contradicting trends have moved within society from the turn of the century into the present, they have been met by an uprise of spaces dedicated to counteracting such forces of development. Conceptually, these spaces are the focus of my thesis.

For my capstone work at *The New School* in the Graduate Program of International Affairs with a concentration in Media and Culture, I am analyzing artist-run film laboratories and the international network they exist within as experimental spaces for the affirmative evocation of the rights to preservation, culture, and memory expressed through independent film production. Through field research, participant observation and secondary source analysis, I have



created a feature length documentary film titled, *The Industry Is Dead So Cinema is Free*, which this writing accompanies.¹

¹ The image on this page is a digitally scanned film still from *The Industry Died So Cinema Is Free*.

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“We remember the pooling of equipment. We remember Pip’s printer. Then procuring equipment through someone someone knew or from auction sales listings. It was the start of the end of commercial laboratories and the moment when advances in digital film technology became more and more accessible to a wider public. The digital market created a redundancy of older equipment: an abundance of Super 8 cameras and projectors along with more affordable and easily found 16mm equipment. Simultaneously, this newfound accessibility to cinematic equipment paradoxically created a counter fad in reaction to the massification of the digital market.”

Anne Fave and Emmanuel Carquille, *We Remember*, (1995-2002)²

² Fave, Anne and Carquille, Emanuel. “We Remember” in *History*. (1995-2002). Accessed Online. December 2019. www.l-abominable.org.

Authors Note *On Methodology*

In conducting this research I have developed an experimental ethnographic documentary exploring the modern ecology of analog film with a specific focus on the international network of artist-run film laboratories that exists within it. In January 2020, two months before the Covid-19 global pandemic spread to the West, I had the opportunity to visit three labs in Europe to conduct my field research. *The Industry Is Dead So Cinema is Free*, is an experimental feature-length documentary seeking to understand the new life analog film has found in the digital age. The essayistic diary film is independently produced in a “Guerilla” style, where I shot on a *Bolex* film camera, two digital cameras, and recorded audio with a field recorder and lavalier mic. It documents three visits I made to artist-run film labs in Europe this past January and concludes in New York this July with the exploration of an experimental film technique I learned about in London. For each lab I visited, I processed rolls of 16mm film by hand or with a refurbished processing machine, experimented with processing techniques and interviewed the artists running each lab.

The film itself combines scans of the 16mm rolls processed at each lab with digitally recorded interviews and footage shot while visiting the labs. Objectively, these labs are the films theme but its broader subjective themes ask the question “why film?”. By combining 16mm and digital formats to document my visits to the film labs I explore the expressive possibilities and limits of each medium, the relationship and tensions between them, and how they can exist alongside one another today. When I first envisioned this project I thought the film would be shot exclusively on 16mm, resulting in a completely structuralist and experimental film. As I moved further along in my research it became evident to me that this film would benefit from the inclusion of a digitally-based narrative depicting the international network of artist-run film labs

and my experiences visiting them. With each roll of film being only three minutes long, this method elevates the 16mm footage from burdens of storytelling by allowing the benefits of digital to come into play. As a creator whose moving image work is done on both digital and analog formats, I found it important for this project to not present one format as superior to the other. Rather, by embracing both digital video and analog film the content of the documentary compares, contrasts, and distinguishes them as mediums. The guiding thread of the film follows me visiting each lab, its subject emerges through the interviews with artists and its essence can be seen in the film grain. Within the documentary artist-run film labs are situated as the center of analog films modern ecology, acting as sites of knowledge and skill sharing where capacity building can take place.

In the written portion of this research, I have used secondary source analysis in conjunction with participant observation to gain a basic historical understanding of artist-run film laboratories. With a specific focus on the labs I visited in Europe, this writing combines excerpts from the interviews I conducted with other research and writing that centers artist-run film labs, to form a historical narrative and analysis of the international organizations. Ultimately aiming to understand how they operate in the world today while also forging a deeper analysis into the functions of film within digital society.

My entry point into this project began with my own experience shooting 16mm film and hand processing it. The idea came to me in March of 2019, when I took Joel Schlemowitz's *New School* course, "Advanced Experimental Film", and upon visiting the Brooklyn-based lab *Negativeland*, we read Genevieve Yue's 2015 *FilmComment* article, "Kitchen Sink Cinema: Artist Run Film Laboratories". Reading about the international phenomena of artist-run film labs

for the first time and then visiting one just a few miles from my home was a surreal experience. I was yearning for a deep dive into analog filmmaking but assumed I only had access to float on the surface. The lab offered an opportunity for developing skills that I previously would not have had access to learning. The supposed “death-of-analog-film” proved itself a rumor as I saw it living around me and in that moment I realized my practice and education did not have to end with the semester. I was fascinated to be in a space which was dedicated to repurposing old materials in new ways and, even further fascinated by the fact that the one I was standing in was not an anomaly but part of an international network. From there I dreamt up the ambitious idea to visit all of the labs within the international network, one after the other, interviewing artists and developing rolls of film that I shot on a *Bolex* camera as I moved between labs. This initial idea proved itself too expensive and I adjusted the project to fit my means.

In the months leading up to my field research, I had the opportunity to take this initial idea and develop it further on both a practical and theoretical basis. Starting in August 2019, I visited the darkroom at *Negativeland* almost weekly. I went in with some previous experience hand-processing film but with different equipment than they use at the lab and its owners, Josh and Ross, saw that I was eager to learn and kindly extended me the opportunity to do so. For a reasonable fee I was granted the space and time to use tools and learn skills that were otherwise inaccessible to me. I know that my claim of artist-run film labs as active sites for practice-based knowledge sharing is true because I experienced it.

“It’s fun to handle film as a celluloid canvas rather than as a fragile carrier of images only to be handled by lab technicians. You can experiment and create the most beautiful images ever.”

Helen Hill (1970 - 2007)³

³Urlus, Esthe. et al. “To Go Boldly: A Starter's Guide to Hand-made and D-I-Y Films” in *Documents on Filmlabs.org*. Accessed Online. (August 2020.) www.filmlabs.org

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Artist-run film labs today represent a return to the early days of celluloid image creation, where the tactical mode of production is now back in the hands of the artist. As the title of the film accompanying this research states, the industry had to die for cinema to be free. Josh Lewis, filmmaker and founder of *Negativeland*, explained to Genevive Yue, running a film lab is “a more involved way of being a filmmaker. You can’t rely on an industry that serves Hollywood. You need to be a technician *and* a filmmaker.”⁴ The option to wear both hats, that of technician and filmmaker, is completely unique to our current period of development. In the very early days of film, the individual filmmaker was responsible for every aspect of their production. In contrast to our current era, making a film then necessitated the knowledge and skills to develop film, *requiring* the filmmaker to also be a lab technician.

In 1895, the first camera was invented by the Lumière Brothers and rapidly changed the way we document history, disseminate information, and relate with each other. By 1897 Lumière camera operators had traveled with the new technology to every continent except Antarctica.⁵ “The operators of the company at the time knew how to film, develop the negative, and expose, develop and then project a positive print”⁶. Beholding an early invention with promising market prospects, the Lumière camera operators were the only people permitted to use the equipment. In fact, “their instructions warned them not to reveal its secrets to no one, not even kings and beautiful women”⁷. By the end of 1897, the Lumière Brothers discontinued their world tours to

⁴ Yue, Genevive. “Kitchen Sink Cinema: Artist Run Film Laboratories,” *Film Comment*. (30 March 2015). Accessed Online. December 2019. www.filmcomment.com.

⁵ Barnouw, Erik. *Documentary: A History of the Non-Fiction Film*. Oxford University Press. (1993). New York.

⁶ Ibid.

⁷ Ibid.

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focus on the manufacturing and sales of film technologies. The materials for filmmaking very quickly found their way to capitalist markets and all aspects of its production became a for-profit venture.

By 1920, Robert Flaherty was making the first documentary, *Nanook of the North*. At this point in time the means to work on film were not accessible to the average person but Flaherty was a rich man, a self-titled “explorer”, and could afford everything necessary for documenting the lives of Canadian Eskimos. Despite a wealth of ethical problems associated with *Nanook of the North*, it is worth noting how the process of its creation exemplifies the reasons why an industry for processing film emerged with the medium's eventual growth in popularity. In the second edition of the book *Documentary: A History of Non-Fiction Film*, author, Erik Barnouw, describes how Flaherty processed his film on site in Canadian Eskimo Territory:

“Printing his footage called for considerable ingenuity. Flaherty found that the light from his portable generator fluctuated too much. In his hut he therefore cut an aperture the size of a 35mm frame—and blocked out all the windows. With the printing machine screwed to the wall, he used the sun for light, regulating the intensity with bits of muslin. Quantities of negative shot during midwinter were developed in a rush in March and April of 1921. All available hands were recruited. The vast amounts of water needed were hauled up through a hole chiseled in six feet of ice and were then pulled by a ten-dog team and a fourteen-foot sledge to Flaherty’s quarters, to be poured into wash tanks and later hauled away again. On some days tons of water were hauled. Keeping it free of fur hairs was a problem.⁸”

Nanook was Flaherty’s second attempt at making a documentary. His first went up in flames in 1916, when a cigarette fell off the table, destroying the 30,000 foot negative he was working with and causing Flaherty to suffer severe injuries from trying to contain the fire.⁹

⁸ Barnouw, Erik. *Documentary: A History of the Non-Fiction Film*. Oxford University Press. (1993). New York.

⁹ Ibid.

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As media evolved, 20th century filmmakers were relieved from the process of production, and the technical knowledge of analog filmmaking developed into its own industry. Processing film then became a specialized skill, with techniques, and eventually machines, that were developed to support it. The rising popularity of film across generations demanded for constant innovation, which transformed technologies, as well as the purposes they were used for. Film flourished throughout the 20th century, dominating mass media and eventually finding its way to the average person. In 1950, video cameras and videotapes first hit the market, though they were very expensive and primarily used for the purposes of preservation. The invention of the Super8 camera in 1962 put filmmaking into the hands of the common person, birthing the home movie and with it a new generation of filmmakers. By the 1970s, according to Barnouw, “a single individual could now be a production unit...these advantages suddenly encouraged all sorts of people—alone or in schools, churches, businesses and community groups—to plunge into video production”¹⁰. As the demand to produce videos rose, the means to create them became increasingly accessible to a greater amount of people which eventually resulted in further innovations and by “the 1980s video cameras with built in microphones became available”¹¹.

In the backdrop of these social shifts from film, to video, with the eventual emergence of today's digital world—where the majority of people are equipped with a camera in their pocket—the industry for commercial film swiftly emerged and then practically vanished. While the commercial film industry was in its prime it was not yet possible for a network of larger-scale independent artist-run infrastructures to develop. Although artists have been

¹⁰ Ibid.

¹¹ Chodorov, Pip. *The Artist-Run Film Labs* in *Millennium Film Journal*. Vol. 60.(2016).

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experimenting with celluloid since it first became available for use, it was not until videotapes transformed into digital cameras and surpassed film as the main medium for time based mechanical reproduction that a network of independent artist-run labs could come into fruition.

Counteracting movements of the digital age over the past forty years, artist-run film labs have emerged and continue to develop across the globe. This movement of independent artist-run film labs originated in Europe and many are currently housed there but the phenomenon appears in, North America, Latin America, Australia, India, Indonesia and South Korea.¹² Cheaply acquiring technology from shut down commercial labs and universities looking for an upgrade, independent laboratories have become sites of experimentation, innovation and practice-based knowledge sharing. Completely unique to our current era, these 'DIY' spaces today form a global network of approximately 50 labs in 25 countries.¹³

Since 1995 independent lab meetings have been occurring on an international level, the most recent of which was in Mexico in 2018.¹⁴ These meetings bring together the ideas and practices of filmmakers and artists who work on celluloid film and are dedicated to implementing independent ways to use production tools through their collective organizations. The first of these meetings was in Grenoble, a small city at the bottom of the French Alps popularly known for its skiing, and in counter-culture movements known for its artist-led organizations. In the garden of Grenoble-based artist squat, *102*, local filmmakers organized this meeting following the decision to make their lab—that was previously open to public

¹² Filmlabs.org. "50 labs" in *Filmlabs.org*. (2005) Accessed Online. December 2019. www.filmlabs.org

¹³ Rosa De, Maria and Burgess, Marilyn. "State of the Art: Understanding, Appreciating & Promoting Analogue Film Practices in the 21st Century," *Communications MDR*. (March 2016).

¹⁴ Filmlabs.org. "Home" in *Filmlabs.org*. (2005) Accessed Online. December 2019. www.filmlabs.org

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use—private, because the constant flow of visitors from all across Europe caused the small lab to become overcrowded. This meeting was a catalyst for the continuously growing trend of filmmakers establishing their own independent production sites. It also set in motion a standard for collective practices within these independent spaces. Today, it is not uncommon for artists who have established a film lab to travel near and far to help others set up a lab in their own towns.¹⁵ In many ways, the broad closure of commercial film labs has granted independent filmmakers, across generations and geographies, a newfound freedom in their relations to each other and to the medium of film itself.

From a human rights based framework, the turn of the century phenomenon of artist-run film laboratories represents a realization of the rights to preservation, culture and memory. This is specifically outlined in “Article 27” of the *United Nations* “Universal Declaration of Human Rights”, which states: “Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits”¹⁶. Earlier 20th century movements within the realm of film, such as *The New American Cinema* movement of the 1960’s—which called to “Free The Cinema”—and even its underground counter-movement of the 1980’s, *The Cinema of Transgression*—a rejection to the academic character which defined the “laws, demands and duties of the avant-garde”¹⁷, forging blockades

¹⁵ Yue, Genevieve. “Kitchen Sink Cinema: Artist Run Film Laboratories,” *Film Comment*. (30 March 2015). Accessed Online. December 2019. www.filmcomment.com.

¹⁶ United Nations General Assembly. “The Universal Declaration of Human Rights”, *United Nations*. (10 December 1948). Accessed Online. August 2020. www.un.org

¹⁷ Zedd, Nick. “Cinema of Transgression Manifesto”, *The Underground Film Bulletin*. (1985). Accessed Online. August 2020. www.web.archive.org

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for new filmmakers—grasp at a realization of the right to free participation within the world of art.

The first notion of *The New American Cinema Group*'s 1961 Manifesto states: “We believe that cinema is indivisibly a personal expression. We therefore reject the interference of producers, distributors and investors until our work is ready to be projected on screen”¹⁸. The fourth notion of this Manifesto revokes the “Budget Myth” and concludes by saying “the low budget is not a purely commercial consideration. It goes with our ethical and aesthetic beliefs, directly connected with the things we want to say, and the way we want to say it”¹⁹. This is indicative of a growing energy at the time, the desire of some independent filmmakers who wanted to be free from the bearings of commercial cinema and produce their films not for profit but for the pleasure of creative expression. This group went on to form *The New York Filmmakers Co-operative* (NYFC), which serves as a means of artist-led control over the distribution of moving-image work. *The New York Film Co-op* “is the first artist-run organization devoted to the dissemination of moving image art”²⁰, and today it continues to collect, preserve, distribute, and screen moving-image art from creators around the world. Control over distribution was realized here, but autonomous control over the process of production, while arguably desired, was not yet possible on a large-scale.

¹⁸ New American Cinema Group. "THE FIRST STATEMENT OF THE NEW AMERICAN CINEMA GROUP (USA, 1961)", in *Film Manifestos and Global Cinema Cultures: A Critical Anthology*, by MacKenzie Scott, 58-60. University of California Press, 2014. Accessed Online. August 2020. www.jstor.org

¹⁹ Ibid.

²⁰ The Film-makers' Coop. “Mission” in *Film-makerscoop.com*. Accessed Online. August 2020. www.film-makerscoop.com

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Inspired by the artist-led distribution of the *NYFC*, *The London Film-Makers' Co-operative* (LFMC) emerged in 1966 and expanded on the established ethos of artist-led filmmaking. According to A.L. Rees in *Shoot Shoot Shoot: The First Decade of the London Film-Makers Co-operative 1966-76*, “The LFMC was unique in incorporating the three key aspects of artist filmmaking: production, distribution and exhibition within a single facility”²¹. Prior to its founding only a few individuals in the United Kingdom made experimental films on 16mm because, “filmmaking was costly and time consuming, and had little status as a serious art form”²². Moving-image artists in the UK at the time had limited technical means to create their films and a small community for experimenting and expanding on the art form. However, due to film movements outside of the region, by the mid-1960s interest in underground film grew and by the late 1960s the LFMC was, “developing its own ethos as well as the facilities to shoot, process and edit films”²³.

In a 2016 article published by *LUX*, titled “Memories of a London Filmmakers' Co-op Workshop Worker”, Nicky Hamlyn writes of his time working at the Co-op between 1979-1981. He describes the Co-op's facilities during this period as “easily the best of its various homes”. Along with space to host a variety of exhibitions and performances, Hamlyn explains that, “next to the cinema was a large open space with a huge skylight: a beautiful light area, with individual rooms for *Steenbeck* editing tables, the *JK optical printer*... and a light-proof loading room”²⁴.

²¹ Rees, A.L. “Locating the LFMC: The First Decade In Context” (2002) in *Shoot Shoot Shoot: The First Decade of the London Film-Makers' Co-operative 1966-76*. Edited by Mark Webber. Lux, 2016.

²² Ibid.

²³ Ibid.

²⁴ Hamlyn, Nicky. “Memories of a London Filmmakers' Co-op Workshop Worker” in *LUX*. (2016). Accessed Online. August 2020. www.lux.org.uk

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He offers a description of the duties he maintained as a workshop worker at the *LFMC*, saying there were many but the most important was running the black and white processing machine. Other responsibilities included “booking out equipment, unlocking edit rooms, keeping splicers supplied with tape, and running the *Debrie* step printer, used for making 16mm contact prints”²⁵. Furthermore, the *LFMC* had a vast amount of 16mm, Super8, lighting, audio and editing equipment that its members could rent.

In accordance with the organization's Manifesto, no one would be turned away.²⁶ However, as the Co-op acquired higher quality equipment and gained attention from a wider range of filmmakers, “including some with commercial ambitions who saw the place as a source of cheap rental equipment”²⁷, by the end of the 1970s the facilities began to be “exploited by individuals who shared none of its spirit of alternative filmmaking”²⁸. These quotations exemplify my argument, based in the dialectical laws of development, that artist-run film laboratories—where artists have autonomous control over the process of production—were not a possible venture prior to the digital turn of the masses. The *LFMC* got very close, and should be considered a model for artist-run film labs today, but as a victim to its time, the organization's ‘DIY’ spirit could not have survived against the commercial industry, and eventually it succumbed to pressures of the market.

²⁵ Hamlyn, Nicky. “Memories of a London Filmmakers’ Co-op Workshop Worker” in *LUX*. (2016). Accessed Online. August 2020. www.lux.org.uk

²⁶ Ibid.

²⁷ Ibid.

²⁸ Ibid.

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It is unclear to me exactly when the production site at the *LFMC* closed down but it is said they were operating out of run-down facilities for a number of years.²⁹ Despite being widely regarded “as one of the most important experimental art spaces in London during the 1970s and 1980s”³⁰ the organization could not procure enough funding to last on its own. In 1997, state-funded art opportunities constructed the London based *LUX Center*, which the *LFMC* was then absorbed into.

Through their international network, and for some within their independent models of organization, artist-run film labs today project the collective spirit of the 1960s. As Genevieve Yue points to in the 2015 *FilmComment* article which inspired this research, “Kitchen Sink Cinema: Artist-Run Film Laboratories”: “these collective dimensions are both political and practical. On the political side of things, some labs are more explicitly anti-commercial than others.”³¹ Yue expands on this idea, pulling a short quote from a longer section of the same piece of writing that opened this research. In “We Remember” by Anne Fave and Emmanuel Carquiel, the history of a French lab, *L'abominable*, and the then-forming network of labs, is broken into stanzas. The stanza under the heading “Autonomy” reads:

“We remember that out of all this arose one basic essential: to seek autonomy. The need to create our own economic structure in the face of the monopolies and hegemonies of certain types of cinema (story-boarded and narrative) and to find at the same time a means of breaking away from the dominance of commercial laboratories. A means to continue producing “different” and “alternative” film works, an “off-beat” cinema, and to confront the overall incompetence of official, administrative bodies. And by doing this, avoid the perpetual problem of so-called “experimental” cinema caught in the double-bind of the non-acceptance by the “plastic” arts (it’s cinema) and of

²⁹ LuxOnline. “Histories”, in *Luxonline.org*. (2005). Accessed Online. August 2020. www.luxonline.org.uk

³⁰ Ibid.

³¹ Yue, Genevieve. “Kitchen Sink Cinema: Artist Run Film Laboratories,” *Film Comment*. (30 March 2015). Accessed Online. December 2019. www.filmcomment.com.

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non-conformity in the eyes of cinematography (it stems from the plastic arts). Out of this arose the necessity to establish our own means of production. This pursuit of autonomy relied upon seeking out a place, the energy of individuals, and furthermore on setting up a collective workshop.³²”

Likewise, while I was visiting *AnalogFilmWerke*, a lab opened in 2017 in Hamburg, Germany, the lab's director, Christopher Gorski, expressed a similar sentiment. Speaking about the international network of artist-run film labs he said, “these ecologies exist in many places, but it is all out of necessity”. To which I asked, what he thinks is the necessity of working on film. Chris replied, “I mean, it’s a medium that won’t die”. Expanding on that thought, he said:

“Film has a very interesting history because it's always tried to legitimize itself as an art form and its never really securely done that. So, if you look at film and the genesis of film, there's people trying to commercialize on it, there's people debating ‘is this an art form?’, or is it just mimicking literature or is it just mimicking theatre...so, film has always struggled to find that identity, because we consume it as entertainment, because it is a commercial product that's traded, so there’s this really weird aspect to it, where film has constantly had to defend itself its entire existence...Now, there's been all this pressure because all of the structures that facilitated making film on film have disappeared...you had a much greater ecosystem for doing these kind of things before, as they start to fall away, as the film labs start to close, as the art schools start to get rid of their film equipment, people still want to work on film... it’s a beautiful, beautiful, beautiful medium, that has so many possibilities and such a different meaning to so many different people...”

In our current era, where mass media and moving-image art tend towards digital production, there is an opportunity for the collective organization of independent artist-led analog film production to flourish. The following pages integrate my field research findings with secondary source analysis to forge a historical narrative of artist-run film labs, defining these spaces while also reflecting on my experience at visiting a few labs in the large network. This paper concludes with an analysis of film in the digital age and speculations for the mediums future.

³² Fave, Anne and Carquille, Emanuel. “We Remember” in *History*. (1995-2002). Accessed Online. December 2019. www.l-abominable.org.

“The rationale for starting the (then relatively new) artist run film lab was that commercial laboratories were closing and that artists who wanted to work in film felt they had little choice but to create their own lab.”

Kathryn Ramey, *Experimental Filmmaking: Break The Machine*, (2015)³³

³³ Ramey, Kathryn. *Experimental Filmmaking: Break The Machine*. (July 2015). Routledge.

What Are Artist-Run Film Labs? *A History and Experience-based Analysis*

According to *filmlabs.org*, the website launched after a 2005 film labs meet up in Brussels, which now serves as a portal for disseminating information about labs and provides an overview of the organizations that have emerged in Europe, North America, South America, Asia and Australia:

“Artist-run film labs implement an original way of using production tools, through their collective organizations, for filmmakers and artists currently working with celluloid film. They act as an experimental ground for cinema (beyond any genre) at a time when the industry is gradually getting rid of film and, with that, the means to process and print.”³⁴

Though interconnected in their practice and goals, independent artist-run labs do not operate homogeneously. Some are member-based organizations, some are non-profit, some are for profit, many provide workshops and have darkrooms for public use, and some host screenings, artists-in-residence and festivals. Typically, they are founded by filmmakers who wanted a space to create and experiment on celluloid so they established their own and let it evolve into a resource to be shared with others. According to French filmmaker, Nicolas Rey, in the “Writings” section of *filmlabs.org*, following the missed opportunity to continue running an independent lab at the *London Filmmakers Cooperative*, the desire arose again in the Netherlands in the closing decade of the 20th century. Rey writes:

“This period proved to be a point of departure for a whole group of structures in Europe. One important factor had affected the costliness of materials: the development of video use. This meant that cinema’s materials began to be abandoned by the industry and therefore could be acquired at a low price.”³⁵

Originating in Europe in the late 1980s, the first two successful artist-run film labs within the network, opening and operating independently from one another, were *Studio Een* in the

³⁴ Filmlabs.org. “Home” in *Filmlabs.org*. (2005) Accessed Online. December 2019. www.filmlabs.org

³⁵ Rey, Nicolas. “Artist-Run Film Labs: A Historical Perspective” in *Writings*. (2009). Accessed Online. December 2019. www.filmlabs.org

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Netherlands and *Atelier MTK* in France. While conducting my field research I had the opportunity to interview founding members of both *Studio Een* and *MTK*.

Artist, filmmaker and teacher, Karel Doing—who currently runs the London-based lab, *Film In Process*, along with filmmaker and educator Bea Haut—founded *Studio Een* as he was graduating from the *Arnhem School of Art* in 1989. As Karel and I were traveling by cable car from *Film In Process*, which is generously housed (because neither Karel or Bea currently teach there) at the *University of East London*, to an experimental documentary screening at, *The University of the Arts London*, where Karel studied for his graduate degree, he reflected on that time with me. He said, “it was for my graduation, I wanted to make a print of my graduation film and I phoned up the lab and they said, ‘we stopped doing this, but we’re selling the machinery’.” With help from his parents, Karel was able to purchase the equipment, opening *Studio Een* with a group of friends in the squat they were living in. I asked if everyone at his University was eager to share the equipment and Karel slightly laughed while explaining that there was not much traction from other art school students. He said: “That was the funny thing, we started this as this sort-of idea that it would be our own place and it would be a group of friends that could use the equipment and so on. But, it turned into this international thing very quickly and we got films from all over Europe”. Karel continued, “it felt amazing, we just started from a squat and everything was super small scale, and it turned out to be a sort-of global business.” He laughed, “we didn’t make much money, we also didn’t know anything about running a business but, it was great because it was this network of filmmakers and people who were interested in super8 and art and experiments and so on.” He explained that, in addition to the lab's popularity in Europe, there were also flyers placed in experimental film leaflets that were spread around the

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United States and as commercial resources for working on film increasingly diminished, their services quickly attracted international attention.

Around that time, Karel went to an experimental film festival hosted by film distributor *LightCone* in Paris and brought flyers that said “don’t be afraid of super8”. There he ran into Christophe Auger and Xavier Quérel, the founders of *MTK*, who exclaimed, “Oh! You are from that flyer!”. The group conversed on a balustrade in Paris and Karel learned that Christophe and Xavier were in the process of starting their own lab.

In its first year *MTK* operated on a cooperative model, with only 8 official members but “[the lab] was open to everybody, and at that time, a lot of people were doing film [on film]³⁶”, in just one year about 50 people came to work at the lab. While I was in Grenoble, in the city-supported building where *MTK* now operates—sitting at a dimly lit kitchen table just steps away from four rooms overflowing with operational analog film equipment, two darkrooms, and two beds—Etienne Claire reflected on those early days. Thirty years later, he now runs the lab with his partner Joyce Lainé but back then he was working as a cinema technician with an eagerness to learn how to make films by hand. He explained, in that first year so many people from all across Europe came to visit the lab that its members had no time to work in the lab themselves, therefore deciding to close it to the public. Following this announcement, “very simply, some people proposed to do a lab in their own town”³⁷. So, they held a meeting in the garden of *102*, the local artist-squat where *MTK* was then operating from.

In an English translation of Anne Fave and Emmanuel Carquille’s poetically penned history of another artist-run film lab in France, *L’abominable*, this meeting is reflected on as

³⁶ Etienne Claire, interview by Author, Grenoble, France. 18 January 2020.

³⁷ Ibid.

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something close to an epic tale. The writers of “We Remember”, look back on the end of the 20th century contextualizing it as a moment of activism within the world of experimental film. They write:

“We remember a weekend in Grenoble in 1995...

“MTK” must have been the first cooperative lab in France to function along [DIY] lines, open to all and enabling each person to develop his or her own work. Unable to handle the large amount of requests coming from all over Europe, the MTK members organized a meeting in the garden at 102 to generate impetus for the opening of other similar style labs. It’s here the participants from different geographical locations decided on this undertaking. For Paris, this signaled the beginning of the adventure that would become *L’Abominable*.³⁸”

While alternating between eating a croissant, smoking a cigarette and drinking espresso, Etienne reflected on that meeting with Joyce and I, he said, “some [people] like Nicolas Rey came, who still runs *L’Abominable* in [the suburbs of] Paris”. Another founding member of *L’Abominable*, filmmaker and film theorist, Pip Chodrov, wrote about this meeting for the 60th edition of *Millenium Film Journal*. There, Chodrov shares that Christophe and Xavier told those who were gathered in the garden, “all you need is a dark room with running water and you can start your own lab”³⁹. Due to this meeting, *L’Abominable* is now the largest collective artist-run film lab.

Two decades later, a similar sentiment was expressed to me when I first visited the Brooklyn-based film lab, *Negativeland*, last May. The idea remains the same: you do not need much to process film yourself, just a sink, a darkroom and a willingness to learn. That meeting in the garden of *102* twenty years ago grasped this energy amongst filmmakers and allowed it to

³⁸ Fave, Anne and Carquille, Emanuel. “We Remember” in *History*. (1995-2002). Accessed Online. December 2019. www.l-abominable.org.

³⁹ Chodorov, Pip. “The Artist-Run Film Labs” in *Millennium Film Journal*. Vol. 60. 2016.

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grow. Like a rock thrown in water, the creation of one lab had a ripple effect stretching across generations and geographies, allowing the turn of the millennium to see an international rise of independent artist-run film labs that today stretches across five continents.⁴⁰

I asked Etienne if he taught those who came to this meeting how to start a lab and how to hand-process film, to which he replied:

“mostly how to process at first, but I was learning with them. In fact, the idea is, as soon as you know something you can share it with someone else. So, I knew very few but I said, ‘okay, I can help you a bit with what I know’. But once again, it’s Christophe Auger who knew how to process, what to use, and had this idea of [an] open lab... At the beginning you use it but you don’t understand what’s going and then, ‘Ah!’ Now it’s interesting, to share knowledge and tools...”

As our conversation went on, I questioned Etienne and Joyce—who have spent the past year developing a potato starch film emulsion based off of 19th century historical processes originally developed by the Lumière brothers⁴¹—, on how the lab acts as a space for developing ideas and testing techniques with the film medium. Joyce, who has a Bachelor's degree in Physics from *New York University* and has been working at *MTK* for five years, reflected on this idea, “that’s why I am really happy working here, because you have this very experimental set-up, like a lab experiment”. It’s like, “I am a scientist... I have one object and I am going to try one thing, and then what’s the next thing I can try to make it go a little different?”. Etienne interjected, “that comes from Christophe Auger again... his idea of a lab was to experiment with the medium, what can you do with that medium that industry doesn't want you to do?”.

In defining artist-run film labs as ‘experimental spaces where the affirmative evocation of the rights to preservation, culture, and memory can be expressed through independent film

⁴⁰ Rosa De, Maria and Burgess, Marilyn. “State of the Art: Understanding, Appreciating & Promoting Analogue Film Practices in the 21st Century,” *Communications MDR*. (March 2016).

⁴¹ See *Appendix A* for a flyer from the screening of their results from an iteration of this experiment

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production’, I am pulling from this same notion that was held at their origin. Artist-run film labs today are sites for experimentation, where knowledge and practices that were once proprietary information of commercial film producers, can be shared and expanded on. Similarly, in the November 2018 *Necsus* article by Rosella Catanese and Jussi Parikka titled “Handmade Films and Artist-run Labs: The Chemical Sites of Film’s Counterculture”, the authors define artist-run film labs as:

“...shared spaces, often international networks, cooperatives, and collectives; besides fulfilling technical work related to, for example, photochemistry, labs can sometimes function as experimental media archaeology sites, practicing techniques that have been used during the early days of cinematography and now recontextualised as part of a living legacy of film and media.⁴²”

This felt the most true to me during my visits to the labs in Europe.

At *MTK* Etienne and Joyce taught me how to do flatbed printing, also known as contact printing, by hand.⁴³ The process is similar to that of late experimental filmmaker Stan Brakhage’s famed 1963 film, *Mothlight*, where Brakhage placed the wings of dead moths onto print stock, exposing small parts of film at a time with a flashlight. In this case, I cut up two negative rolls of film that I shot in London and processed the day before at *MTK*, and used a small flashlight to create a positive image by exposing a yard at a time onto about a 100 feet of color print stock. Etienne and Joyce taught me their method for this printing process, where an arms-length at a time is printed using a flashlight and colored filters and then that strip is processed individually. I

⁴² Catanese, Rosella. Parikka, Jussi. “*Handmade Films and Artist-run Labs: The Chemical Sites of Film’s Counterculture*”. *Necsus*. (23 November 2018). www.necsus-ejms.org.

⁴³ Urlus, Esthe. et al. “To Go Boldly: A Starter's Guide to Hand-made and D-I-Y Films” in *Documents on Filmlabs.org*. Accessed Online. August 2020. www.filmlabs.org

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spent somewhere between six and eight hours in their darkroom that day, fascinated by the process and results. I later recorded the experience in my field notes:

“They showed me how to flat print using two pieces of glass and overlaying the negative film on to unexposed print film stock, doing an arms-length at a time and then processing them individually... I tested a lot of things, mostly filters, red-light, [objects like] screens and a glass crystal, and multiple exposures. It was very satisfying to see [my] experiments work out (or not) as early as 60 sec. in the developer (when using the sodium light).⁴⁴”

Almost a week later, while I was visiting *AnalogFilmWerke*, in Hamburg, Germany, I worked with Christopher Gorski, experimental filmmaker and Director of the *AnalogFilmWerke* Board, to attempt a processing technique that was new to both of us. I had purchased a couple hundred feet of expired double-perforated 200T film—a printstock no longer manufactured—from *Negativeland*, where I had been frequenting to use their darkroom while learning how to hand-process. I shot this roll of film at half exposure while in Grenoble and then reloaded it into the *Bolex* camera I was using to expose the film again in Hamburg. Chris and I then stayed up very late cross-processing the film under fluorescent lights of the basement filled with analog film and photo equipment that houses *AnalogFilmWerke*.

Most film is developed as a negative and then the image needs to be flipped into a positive, either through re-photographing the image onto print-stock or through a digital scan. Some film stocks, like the famed *Kodachrome*, which *Kodak* relaunched last year, are reversal films. Meaning, there is no negative that needs to be turned into a positive, the original copy of the film is itself a positive. So, to cross-process the film, Chris and I treated the negative film stock as if it was reversal. We mixed the proper chemistry by following a recipe a friend of

⁴⁴ Stills from this film experiment can be found in *Appendix B* of this document.

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Chris's designed for a workshop at the other New York based artist-run film lab, *Mono No Aware*, where Chris worked prior to moving to Hamburg. We wore white lab coats and green gloves to protect us from exposure to the toxic chemicals, a stark contrast to my time processing film in Grenoble, where I was instructed to use my bare hands to move the film around in the chemistry. We then processed 50 feet of film in a *Lomo Tank*—a light tight tank with a hose, spiral and detached upper-reel, commonly used for hand processing film. Unsure if the process would work, we were both pleasantly surprised to see faint images on the first film strip. For the next 50 feet we adjusted some parameters, knocking the chemistry temperature down by 1 degree celsius and processing the film in developer for 45 seconds less than we had done initially. This produced better results, where the image was less blown out than it was with the first attempt.⁴⁵

In the time I spent working at *AnalogFilmWerke* with Chris, the creative and experimental possibilities of a lab space were being revealed to me through experience. Chris shared with me that his interest in analog film and photo stemmed from a curiosity for the photochemical process. He has now been working with the medium and has been connected to the film lab circuit for almost a decade but reflected on how difficult it was to get involved when he was just starting out. He later said during our interview, “my primary goal in having an artist-run film lab is that I don't want it to be as hard for other people, as it was for me, to get into film.” Similarly, in the research report funded by the *Canadian Council of the Arts*, titled “State of The Art: Understanding Appreciating and Promoting Analogue Film Practices in the 21st Century”, the authors, Maria De Rosa and Marilyn Burgess, write: “The goal of the labs is

⁴⁵ Stills from this film and a photo of Chris's lab notes can be found in *Appendix C* of this document.

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to ‘open the doors to anyone who wants to work on film material, whether they are beginners or expert filmmakers, whether they make experimental films, contemporary art, or performance pieces’...”. Chris expanded on this idea, “I want people who have the interest, have the passion, have the curiosity, to come and be able to learn about film. It's about creating this ecosystem, where it's much more advantageous and much more enabling to people who are just getting into it and to people who are really committed to continue working on it.”

Before moving to Hamburg, Chris lived in New York and studied at *The New School*, where he finally found resources that met his interests, eventually leading him to run workshops at the artist-run film lab *Mono No Aware*. Chris and I have the shared experience of studying with New York based artists and filmmaker's at *The New School*, particularly Joel Schlemowitz and MM Serra, who continue to teach celluloid filmmaking methods. To my knowledge, the film curriculum at *The New School* is one of the few left in the country that requires students to learn on 16mm before using digital cameras. The Universities *Media Studies Film Office* is equipped with about twenty *Bolex* film cameras, three film projectors, and has a basement for student use filled with *Steenbeck* editing tables, a 16mm animation stand, *JK Optical Printer* and other analog film editing equipment. While the University provides students, like Chris and I, with access to the knowledge and resources to make films on 16mm, Chris attributes much of his film practice to his time at labs.

When he first moved to New York from Portland with his partner, Laura, who also studied at *The New School*, they were both interested in learning how to hand-process film and came across the 4x6 yellow flyers scattered around New York City that advertise filmmaking workshops at *Mono No Aware*. His partner took one of the workshops and shortly after Chris

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took one as well, within a few months they both began teaching there. Working at *Mono No Aware* gave Chris an understanding of how a film lab could successfully operate.

When he and Laura moved to Hamburg, Chris said he was desperately trying to find resources to complete a film project. After a long period of research, sometime in 2017, he came across an obscure *Facebook* page that was named after the processing machine that *AnalogFilmWerke* was eventually built around. Chris contacted the group and attended their upcoming meeting. He was an outsider amongst local art-school students who were given a broken processing machine and trying to figure out what to do with it. They wanted to open a film lab but, “everyone had tunnel vision around this machine”⁴⁶. Chris said, “they thought they would rebuild it in a few months and in that time all of the art school students who had been involved lost interest”. He then spent the next year fixing the machine with occasional help from others. In 2018, Chris requested to be elected to the Board, and since then has been trying to, “create a community of active filmmakers [in the area] who are working on film”. Each school year, students from the local University spend some time at the lab processing their films and a month before I visited *AnalogFilmWerke* co-hosted a screening with a larger neighboring lab in Berlin called, *LaborBerlin*.

While we were waiting for the cross-processed film to dry, both feeling on the fringe of delirium around two in the morning, Chris spoke excitedly about a film processing workshop he hosted a year prior at a Hamburg based film festival and his hopes for doing more of that type of work in the future. He shared that in the recent past, both *Tetenal*—a major film manufacturer in Germany—and *Kodak*, have donated supplies to the lab. Expanding on this idea, Chris noted:

⁴⁶ Christopher Gorski, interview by Author, Hamburg, Germany, 23 January 2020

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“as it’s been put to [him], [for] companies [whose] business depends on people working on film, it’s very interesting in today's climate because... before we were direct competitors and we could have never conceived of working together, but today in this ecosystem, where all the giants have fallen and everyone's trying to see like, ‘okay how can we continue to exist and produce our products?’, there's an interdependence, and it's like a collaboration... on one hand, you can look at it like a bad co-dependent relationship or... a wonderful opportunity for collaboration.”

Here, Chris pointed to an indisputable fact, while artist-run film labs today exist in opposition to the commercial film industry, there still remains a connection to commercial manufacturers.

In the past, the industry of film manufacturers supported and, in-turn was supported by, mass media and commercial cinema. It differs today, where the industrial scale production of film products is largely characterized by an interdependent relationship with small-scale independent filmmakers. This is all part of the ecology that supports analog filmmaking practices in the 21st century. As Maria De Rosa and Marilyn Burgess put it in “*State of The Art:*

Understanding Appreciating and Promoting Analogue Film Practices in the 21st Century”:

“To make their films, analogue filmmakers rely on a host of suppliers and service providers to access basic necessities such as film stock and camera equipment, editing equipment, sound transfer services and film printing services. A supportive ecology for analogue film is key to enabling production, distribution and exhibition of artists’ film works.”

The analog film ecology can be understood as an interrelated network of artist run and commercial organizations that provide equipment, materials, services and training to support analog filmmakers. Maria De Rosa and Marilyn Burgess expand on this idea in their research findings:

“... the ecology comprises artist-run and commercial organizations that provide equipment, materials, services, training and access to the public. Over the same period that saw the radical decline in an economy for industrial analogue film, the arts have been party to a renaissance in photochemical filmmaking made possible by both existing and new artist-run and artist-friendly infrastructures.

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In addition to Kodak, a number of smaller film manufacturers continue to support analogue film production, including German-based ORWO and Wittner Cinetic, as well as FOMA Bohemia Ltd of the Czech Republic.⁴⁷

As the research paper “*State of The Art: Understanding Appreciating and Promoting Analogue Film Practices in the 21st Century*” indicates, knowledge and skill sharing of celluloid film production is increasingly happening outside of fixed institutional and academic settings. The authors write:

“Artists working in analogue include individual filmmakers, artists’ collectives and visual artists. Professional training is provided by colleges and universities, and increasingly, by artist-run organizations. Production is being supported primarily by infrastructures created by artists, notably independent film production centres and artist-run labs. The ecology includes a small number of commercial suppliers including commercial laboratories, post-production studios and equipment manufacturers. There exist a variety of exhibition platforms, including online, specialized festivals, micro-cinemas, galleries and museums.⁴⁸”

This trajectory aligns with Chris’s hopes for the future of analog filmmaking, where access to resources and education are not reserved for those with the privilege to go beyond gates of an ivory tower, but open to anyone who is interested in experimenting with photochemical film processes. While he did not initially intend on starting a film lab when moving to Hamburg from New York, the experience gives him hope for the future of film. In thinking about how film functions in our current age and its prospects for the future, Chris said, the thing, “that people don’t think about, it’s not just like film still exists, film continues to evolve... People come up with new ideas or they bring back old ones and people interplate all this knowledge into

⁴⁷ Rosa De, Maria and Burgess, Marilyn. “State of the Art: Understanding, Appreciating & Promoting Analogue Film Practices in the 21st Century,” *Communications MDR*. (March 2016).

⁴⁸ Ibid. A copy of the graphic this research project uses to depict the ecology of analog film can be found in the *Appendix D* of this paper.

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something that's new". From his "perspective, working on film, there is no finite end to the frontiers you can encounter".

In the short weekend I spent visiting *AnalogFilmWerke* the theory behind my research was further put into practice. The experience of testing processing techniques in a lab made the definition of experimental film offered by Karel Doing while I interviewed him just a few days prior, feel all the more true. Karel said:

"Here's the big question, 'what is experimental film exactly?' And nobody knows, so maybe this is one of the possible solutions, one of the possible definitions of experimental film, is that you try something new and you see if it works and if you get a result then you try to push it further, and see how you can make something new work for you".

I asked if he does this often within his own film practice, to which he said, "of course, I love to explore things". Most notably, Karel invented a non-camera filmmaking method called "phytograms", which uses the photochemical elements of plants to create images on film emulsion. The plants are soaked in a mixture of vitamin C and water, and then laid out on film material and left in the sun to be exposed. He developed this process while studying for his Graduate degree at *The University of the Arts London*. He shares the methodology, research findings, history, and online workshops publicly on a "phytogram" blog. There he writes:

"I started experimenting with organic chemistry and film emulsion in 2014 and gradually discovered the possibilities that plants have to offer...sharing my experience has been rewarding, not only because of the enthusiasm of the participants but also by seeing fellow artists taking the initial idea further and producing astonishing results"⁴⁹.

Karel and I discussed the phytogram method throughout the day we spent together. During our interview he enthusiastically remarked that the phytograms have opened up new possibilities for his artistic practice, saying, "now, I have this suitcase with my little lab inside and I can go

⁴⁹ Doing, Karel. "Phytogram" in *Phytogram Blog*. Accessed Online. August 2020. www.phytogram.blog

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anywhere, and I don't need equipment, I don't need a darkroom, and I can make films together with people and plants... it's a collaborative thing". The most exciting part for Karel in the evolution of this research has been the connections it has allowed him to form with other people. He reflected on a workshop he gave in London, where he had "an older lady who goes to [an] english tea room and she's really enjoying this. She's almost crying and saying, 'I feel like a child!'" He continued, "it's beautiful, to have the possibility to connect to a person that... I would end up next to her, let's say in the tube, and we wouldn't connect at all, we would have nothing to talk about." For Karel, it's seeing this excitement in others, through the process of creative collaboration, that drives him. He closed our interview saying:

"I think that it sort of boils down to these more human connections... [that is, what] for me, all the time, feels important... I actually found out, going through my life and all the ups and downs, that, that is a core value, [and] maybe in the end [that is] the most important—much more than success as a filmmaker and reaching like one million people—is that kind of human connection, [that] is what really works for me and what makes me really happy."

Likewise, in conducting this research, aiming to understand how film has survived the digital age, I had the opportunity to forge connections with people I otherwise would not have met. The process of developing this writing and making the film it accompanies, has revealed to me an active community of artists who are passionate about film and responsible for its continuous evolution in the digital era. As Genevieve Yue describes in *Kitchen Sink Cinema*, "the most distinctive quality about the current artist-run lab movement is the international circuit that sustains it"⁵⁰. While I have only had the opportunity to visit a small portion of a much larger network, it is evident that the international community formed around artist-led filmmaking is

⁵⁰ Yue, Genevieve. "Kitchen Sink Cinema: Artist Run Film Laboratories," *Film Comment*. (30 March 2015). Accessed Online. December 2019. www.filmcomment.com.

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the driving force for the modern ecology of analog film. It is the process of creation that is facilitated at these labs, and furthermore through their network, that allows the medium to grow.

I consider myself a process-oriented person and that dictates much of my creative work. In doing this research, I have realized that spirit is what drives my interest in filmmaking as well. When I first set-out to do this project I thought it would reveal to me a deeper truth about analog film. An inherent quality of the medium, which I found to be so elusive, that could offer something in opposition to the “everything on demand” digital world with which I have grown up. In my filmmaking practice, I certainly feel a difference between analog and digital. While digital has the capacity to record much longer periods of time, allowing the camera to theoretically capture an infinite amount of time, analog requires practitioners to relinquish some control over the medium, mechanically reproducing their perceived world in a revolution of photographs limited by the physical length of a film strip. Furthermore, there is a notable contrast between pixels and grain. As Stephen Prince wrote for *Film Quarterly*, “the grain pattern is never the same from frame to frame, making each frame a unique visual experience. [...] It is the constantly changing grain pattern that helps make the film image so alive, and which also diminishes its degree of sharpness relative to DV [digital video].”⁵¹

I am still waiting for time to reveal the answer to my question: “does one of these mediums have a greater potential for capturing the *Truth*?”. As of now, there is one thing I can say for certain, when everything around us is so instantaneous, processing your own film happens in a slow laborious rhythm. For me, as a filmmaker, I think this is what I like the most about the analog medium, the patience it requires, the breathing and letting go.

⁵¹ Graf, Alexander. Scheunemann, Dietrich. *Avant-Garde Film*. Rodopi B.V. (2007).

“Through necessity and desire for freedom to practice their work the artists have taken control of the means of production and created a vibrant and nurturing alternative to working through/with the institutions of commercial cinema.”

Kathryn Ramey, *Experimental Filmmaking: Break The Machine*, (2015)⁵²

⁵² Ramey, Kathryn. *Experimental Filmmaking: Break The Machine*. (July 2015). Routledge.

Conclusion *The End of a Kodak Moment*

In 2012, the *Eastman Kodak* company declared bankruptcy.⁵³ The imminent failure of a once leading company within the realm of film and photo is simply a testimony to the times. The 21st century has shown a collapse in the commercial film industry as digital technologies have transformed the market. Presentally, there are only 65 commercial film laboratories throughout the world.⁵⁴ From a market based perspective, the inverse relationship between digital and analog media formats hints at a future ruled by digital technologies where film has gone absolutely obsolete. While it is true that the inevitable development of technology over time has pushed analog film to the peripheries of the commercial sphere, it has also opened up space for artistic innovations by independent filmmakers in a way that was unattainable when analog film was the dominant mode of mass media production. Therefore, the unintended consequence of a commercial film industry on the decline has been a flourishing community of artists continuing to work on celluloid.

Despite great reductions of available film stocks from major manufacturers, universities transitioning film programs from analog to digital, and the vast closure of commercial production sites, the technical knowledge of analog film as a creative medium persists and furthermore, it evolves. It is now created, preserved and circulated through an active ecology of artists who have established their own infrastructures for production, distribution and exhibition.⁵⁵ At the heart of this ecology are artist-run film labs.

⁵³ Merced de la, Michael. "Eastman Kodak Files for Bankruptcy," *New York Times*. (19 January 2012). Accessed Online. December 2019. www.dealbook.nytimes.com

⁵⁴ Yue, Genevieve. "Kitchen Sink Cinema: Artist Run Film Laboratories," *Film Comment*. (30 March 2015). Accessed Online. December 2019. www.filmcomment.com.

⁵⁵ Rosa De, Maria and Burgess, Marilyn. "State of the Art: Understanding, Appreciating & Promoting Analogue Film Practices in the 21st Century," *Communications MDR*. (March 2016).

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Artist-run film labs emerged at the end of the 20th century as the commercial industry decided film was no longer a viable format to work on, resulting in the abandonment of machinery by commercial film manufacturers and universities looking for digital upgrades. Suddenly, discarded equipment that was previously too expensive for the average filmmaker to own, was cheaply and readily available. In various pockets across the globe, groups of artists rescued and repurposed retired machinery, giving the equipment and knowledge a new home, and resurrecting the film medium. Knowledge that was once considered “secrets of the trade”, now has the opportunity to be openly shared and expanded on by independent artists within these spaces. As film is continuously pushed to the outskirts by mass media and academia, these labs are currently one of the few places where people interested in working on film can go to learn and practice. Film has evolved into the present day due to the international community of artists who continue to work with the medium. The overall goal of the international network of artist-led film production today is perfectly summed up in introduction to a booklet titled, “To Go Boldly: A Starter's Guide to Hand-made and D-I-Y Films”:

“This signifies a hope and commitment to making sure these techniques, tricks and handy tips remain openly available to all who might need them. Let’s not keep any secrets! These (chemical) receipts, printing processes, after dev. Effects, emulsion extras and celluloid experiments should be absolutely public. Let’s make hand-made d-i-y films! Let’s make a lot!⁵⁶”

I intended to visit more labs than I ultimately was able to, as my field research was cut short by the unprecedented global spread of Covid-19. Admittedly, living in New York in the spring of 2020, at the epicenter of a global health crisis, made me question this entire project. My passion for the film medium and the community surrounding it were at bay, as I imagined

⁵⁶ Urlus, Esthe. et al. “To Go Boldly: A Starter's Guide to Hand-made and D-I-Y Films” in *Documents* on Filmlabs.org. Accessed Online. August 2020. www.filmlabs.org

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artist-run networks would dissolve following the impacts of a global recession. I asked myself, “who could possibly care about artist-run film labs when the world is suffering”. It’s true, it is difficult to see the importance of art amidst times of crisis. Yet, if experiences of crisis contain lessons, there’s something to be said about maintaining the creative spirit as a mode of survival. As New York transitioned from “Lockdown” to “Phase 1 re-opening”, I had the opportunity to attempt Karel Doing’s phytogram method with filmmaker, educator, and Director of *The New York Filmmakers Cooperative*, MM Serra. After months of enforced solitude, MM and I worked together in her community garden, collecting plants, experimenting with the method and creating film. In these moments of creation my passion was rekindled. Closing this project through the same doors that opened it, a few days later, I went to *Negativeland* for the first time in months to splice together the phytogram strips before getting the film scanned. Opposing my fears, in the heavy heat of a New York summer, the lab was active, artists vibrant, and the medium of film was continuing to flourish.

Appendices

Appendix A. Flyer from the screening of MTK's results from an iteration of experimenting with developing The Lumière Brothers 19th century potato starch film emulsion.



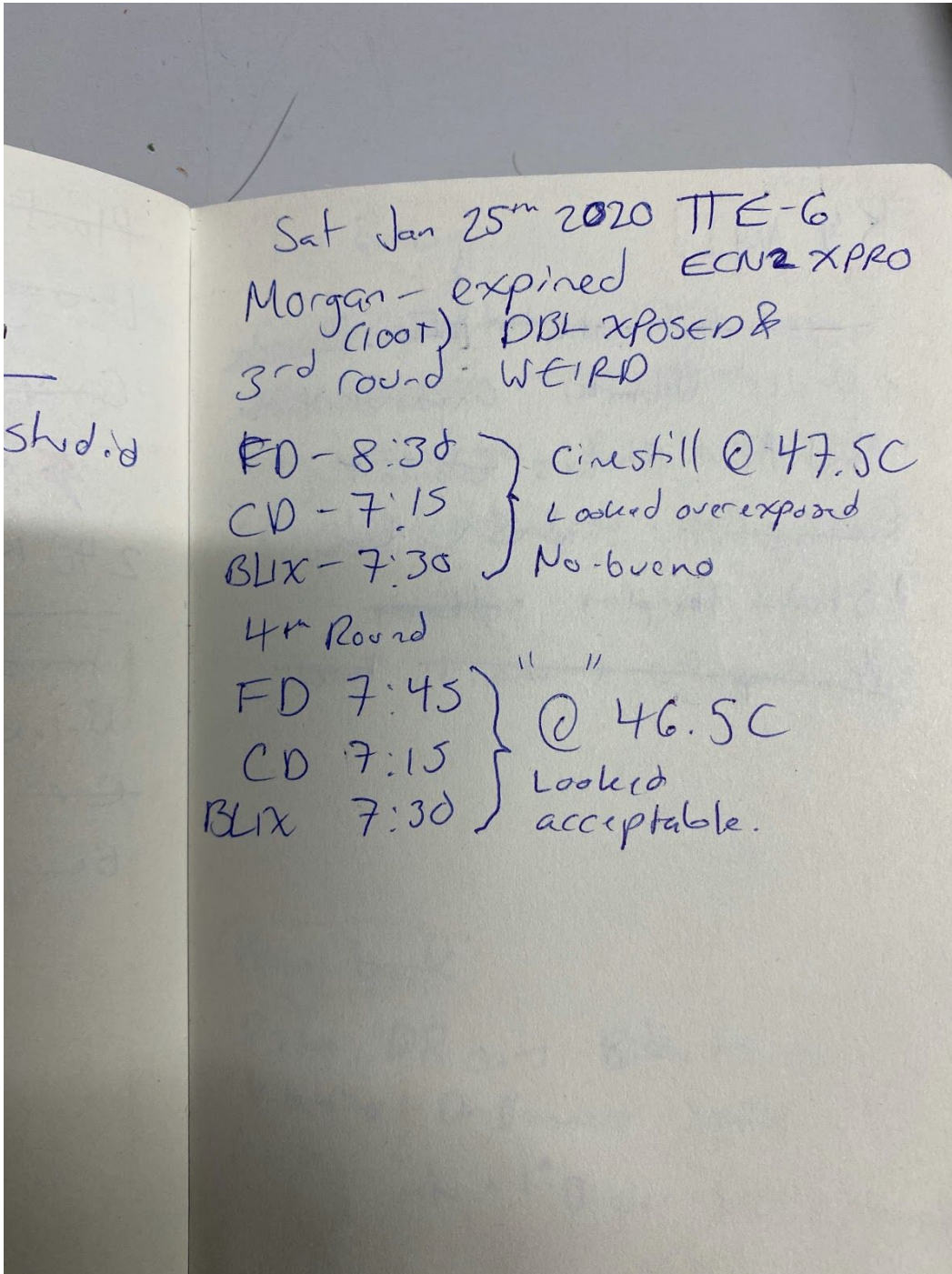
Appendices

Appendix B. *Digitally scanned film stills from 16mm hand processed film at MTK. Second image is an experimental contact print of the first image.*



Appendices

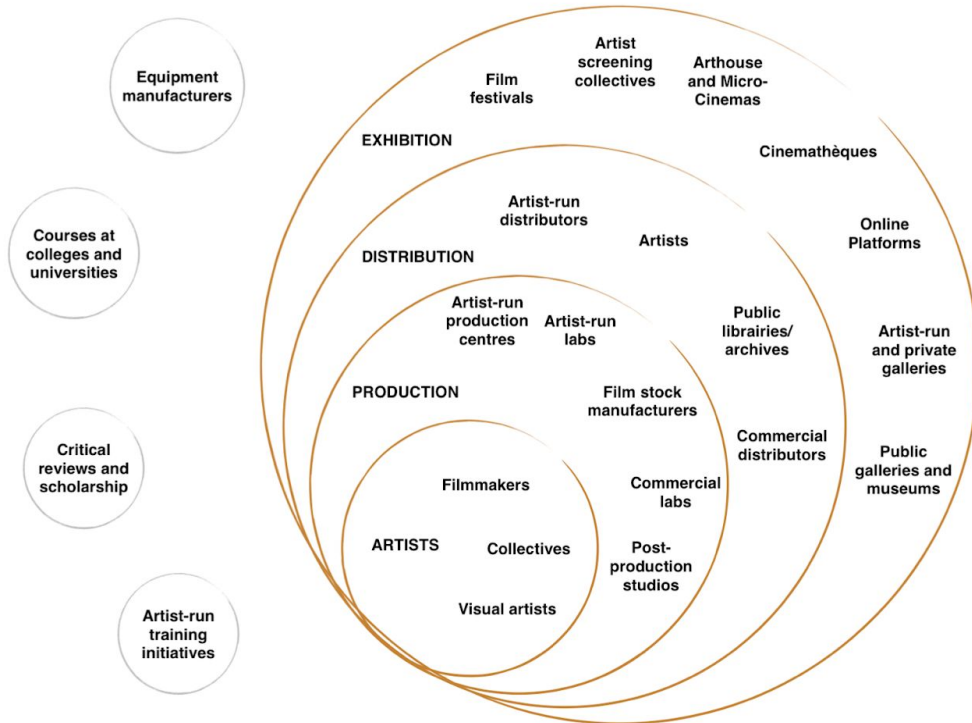
Appendix C. Notes from cross-processing film at AnalogFilmWerke, January 2020.



Appendices

Appendix D. *Graphic of “Analog Film Ecology” depicted by Rosa De, Maria and Burgess, Marilyn in “State of the Art: Understanding, Appreciating & Promoting Analogue Film Practices in the 21st Century,” Communications MDR. (March 2016).*

Figure 3: Analogue Film Ecology



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