Machine Based Artistic Production (MBAP)

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# Table of Contents

Introduction .......................................................................................................................... 3  
Earlier Work ....................................................................................................................... 3  
Machine Based Artistic Production (MBAP) .................................................................. 6  
Presence and Absence of the Hand .............................................................................. 10  
New Materiality, Generative Art, and Concrete Photography ....................................... 12  
The Darkroom .................................................................................................................. 15  
Conclusion ....................................................................................................................... 16  
Bibliography .................................................................................................................... 18  
Image List ......................................................................................................................... 19
Machine Based Artistic Production (MBAP)
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Introduction
My practice involves surrendering control to a variety of generative processes as a way to create an image. By exposing gelatin silver paper to obscure chemical processes, or using simple machines to create photomechanical drawings on large sheets of gelatin silver paper, the work is actively directed by the process. Visually, this work begins to relate to painting as much as photography, taking on elements typically associated with high modernist painting. Instead of paints and brushes, however, I employ a variety of chemical, mechanical, and process based tools to create the work. While I produce the work, the process creates the aesthetics and form, as with the series Machine Based Artistic Production (MBAP). The pieces that make up this series are unique images produced by the dance of several self-propelled machines mounted with lights, drawing their paths across the page. This process creates an illegible record as it traces an event that I set in motion; capturing a moment photographically without the mediation of the camera. Through my practice I investigate the relationship between the exercise of control and the element of chance in a process that actively and self-consciously embraces both.

Earlier Work
Over the course of my artistic practice I have explored many of the core concepts of the photographic, but my practice continues to return to the typological aspects of the photographic. For several years, I used the typology as a power mediator, a tool to gain control over what I was cataloging: modernist architecture, office supplies, snack foods.
Despite this work’s banal conceptual underpinnings—the infinite repetition of the modern world—it was essential in my mind that the work remains a formalist endeavor, countering the intentionally bland aesthetics of some conceptual and typologic photography. During these early series the actual process of image making became as much of a concern as the resulting pieces. It wasn’t enough that I was transforming through the lens, I began to play with other options for image making, whether it be the use of a flatbed scanner as an imaging device or through manipulation of the paper and chemistry of darkroom prints to highlight the materiality of the paper as an object as well as a surface. This was especially important in a series of crumpled paper prints, where I began moving away from standard processes and into the chemical and physical manipulation of the printed images themselves, resulting in works that behaved as a combination of photograph, painting, and sculpture, outside of the traditional framed image.

During my second year, these investigations into process and materiality lead to a great leap forward for my practice; a series entitled *Mordençage (2013-14)*. This work went through a variety of iterations ultimately settling into a series of 300 unique prints made through a chemical process known as mordençage, that operates through a combination of chemistry and the flow of water. Each print starts with an identically manufactured base; a black circle is printed in the same spot.
on 5x7 inch sheets of gelatin silver paper and allowed to dry. After printing, these identical circles are exposed to the Mordançage solution which causes the circles to lift and, as they wash, the chemistry and flow of water create unique compositions from the silver emulsion - the raw material of the photograph itself. These pieces, resembling delicate folds of cloth moving across the print, capture and freeze the intangible flow of water into a physical medium, each piece creating a new representation of this phenomenon.

Ultimately, the work returned to my typological inclinations in its presentation, hung as a tremendous grid of prints, highlighting at once the sameness and uniqueness of each image object and the subtle variations caused by the productive elements of the process. Additionally, this work was an essential conceptual stepping stone - by allowing the process to control aspects of the aesthetics of the piece, it begins to remove my subjectivity and calls into question the authorship of the work as it becomes a collaboration between myself and the elements that actually make the image.
In keeping with the issue of control, I began to experiment with giving further agency to the mechanical elements of the photographic process, deepening my collaboration with non-traditional external elements. Rather than using camera or scanner to control light and image, my terminal project uses of a number of small self-propelled machines equipped with a variety of small lights that are set to run freely over a large sheet of light sensitive paper, measured out to roughly my own height. The small lights enable the machines to create tracks across the photosensitive paper, black marks that record their movement across the page.

The machines I use for this process vary greatly, some of them are purpose-built machines designed to complete utilitarian tasks, such as the household cleaning robots that randomize their paths, while others are educational machines designed to display basic locomotion functions, and others still are simple children’s toys. Though they differ in purpose, there is one common link - none of them are programmable, which means that the movements they make and thus the marks they produce are of their own making, completely removed from my hand. Though some traditionalists might have issues describing works as photography that do not use a lens to capture images, this work stands true to a core tenet of the medium as laid out by Lazlo Moholy-Nagy, in 1928, who stated that, “[t]he main instrument of the photographic process is not the camera, but the photosensitive layer: the specific rules and methods of photography accord with how the layer responds to lighting effects produced by different materials according to their light or dark, smooth or rough
Machine Based Artistic Production (MBAP)
Alex Krajkowski

characteristics”. As a result, this work stands firmly as part of the photographic canon, although it does begin to probe into other mediums, which will be expanded on later in the text.

While these works are firmly photographic in process and materials, they also start to explore the boundaries between other mediums. They begin to take on aspects of paintings, both in their visual reference to brushstrokes, and even in the language I use to describe these pieces. As John Szarkowski points out in the seminal The Photographer’s Eye, “[p]aintings were made...but photographs, as the man on the street put it, were taken.” The works in MBAP are not images captured of the world, but rather are ‘composed’ in a way similar to the way Szarkowski describes painting. There are also sculptural traits to be found in the works as a result of their scale. The images engage the viewer physically, especially as the images begin to move across several panels, entering into the viewer’s space through the curl of the paper, becoming as much about the monumental structure as about the image on the face of the print.

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1 Lazlo Moholy-Nagy, quoted in Carol Squiers, What is a Photograph?. 2014. Page 24
These prints, each roughly seven feet tall, are covered in abstract marks of varying sizes, ranging from light grays to deep inky blacks, running across the surfaces of the works in an assortment of patterns. The marks, patterns and tonality vary greatly from piece to piece; at points combining to make pieces packed with delicate swirls, and thick lines creating an almost impossible to discern field, while in other prints only a few black marks cut across the page, cleaving across the image’s white space to create a composition not unlike that of the Abstract Expressionists. At times the combination of these marks forms an illusionistic space, creating foreground and background. The work has taken a number of different forms, initially existing as singular prints on matte and high gloss paper, each 42.5 inches wide and about 7 feet tall. After some experimentation these pieces started to move across several panels, and became sequential. The gestures described earlier expand across five panels, each 42.5 inches wide and about 7 feet tall. These pieces require the viewer to interact with it as they would large paintings that required viewing from different distances to get the full scope of the piece. The work has continued to explore scale in a variety of ways, expanding across dozens of strips of thin 6 inch panels, each
10 feet tall, taking on a form similar to gigantic vertical blinds. Each one of these prints curls away from the wall creating a large concavity and visually references hanging film. Additionally, the tonality of the lighter backgrounds on these prints leads them to blend into the wall, furthering the reference to film. Other pieces have expanded to take the entire roll of paper, becoming 33 foot long pieces. These monolithic pieces drape from the ceiling, moving along to the wall, extending roughly ten feet into the viewer’s space. This installation of MBAP stood as my final terminal project installation, in the Disjecta Contemporary Arts Center. This expansion in scale intrudes into the viewer’s space and allows for the pieces to behave as a sculpture, rather than as a traditional wall mounted photograph. This scale also mirrors the creation of the pieces. Rather than having my subjectivity decide the trimmed size of the print, these prints take up an entire roll of paper - the size determined by the manufacture of the paper. All of these pieces are printed on glossy paper, creating strange reflective surfaces that bring the viewer into the work in a very literal sense.
Presence and Absence of the Hand

In traditional photography, a work’s author is he/she who holds the camera. My work calls into question the nature of authorship. Traditionally the author composes the shot, deciding what to include and omit from the frame, choosing the decisive moment to capture, making an exposure that is all their own. Described by John Szarkowski in 1976 as being, “a matter of choosing from among given possibilities...not finite but infinite”\(^3\). This act of selection and choosing is one that defines the subjectivity inherent in any discussion of the photographic document, that the photographer is present, and captured this image, making them the sole creator of the photograph. However, since its inception the photographic’s sense of authorship and objectivity has been a loaded topic. Henry Fox Talbot, one of the fathers of Photography, defined his new medium as being able to allow, “natural objects...delineate themselves without the aid of the artist’s pencil”\(^4\). For Talbot, the photographic process is a collaboration between photographer, camera, and the thing being photographed. Likewise, the prints in my terminal project are a collaboration between myself, and the machines which act both as camera and captured object. I am not the only author, as my singular hand does not make the marks on the page, and at the same time the machines are not the authors, as I modify them to create marks, and decide the scale of the work and the length of the exposures.

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Practically speaking, chance also plays a large part in the creation of these pieces. As opposed to traditional photography where there are rules and laws in place to ensure and predict a good exposure, there is no manual for this workflow. It is impossible to predict the results of any given piece and as a result, the authorship of the work is brought further into question as these stunning formal elements are not crafted by my hand. As discussed by contemporary photographer Mariah Robertson, these rules that make up traditional photography are ideal for exploration. In describing her practice, she discusses engaging with the, “…processes from within photography”, and confronting the familiar elements in, “…photography culture, [where] things are mounted this way, they’re matted this way, you use chemistry this way at this temperature, and you frame...so many rules! So it’s really perfect for a little poking”. This style of working upends the photographic process, creating work that exploits the chance that is ever present in the photographic.

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Investigating the photographic process and chance has led me to consider how chance operates in the creation of a work of art through Situationist traditions. In researching different modes of interacting with space and the built world, I found myself drawn to the Dérive - a practice championed by Guy Debord in which an individual wanders an urban space, allowing chance and psychogeography to guide them on an exploration of that space. This practice involves a letting go of control and allowing the psychogeography of the space itself to control the motion of a group of individuals through it, working to map society’s interaction with space. With a similar release of control, the machines with which I collaborate start to create maps, both as a visual reference and as a direct trace of their motions. Areas that are more travelled begin to darken, creating a sort of mechanical trail map, especially as the work expands to greater and greater scales. This practice of mapping an urban space mirrors my own practice - it is not about the city dweller bending the city to their indomitable will, it is a collaboration between city and dweller - together they create their own map of the space, just as these works map the collaboration between myself and the machine.

**New Materiality, Generative Art, and Concrete Photography**

Another area of my research has been focused on the history of the photograph as a mechanical reproduction of the world; made by a machine that controls light, projected onto a light sensitive surface, capturing and freezing a single moment into a timeless image. As a result of this legacy and my own inclination towards abstraction, my research has been focused on abstraction within photography, the tradition of cameraless work, and the thread of
generative/process/concrete photography, all of which calls into question the traditional relationship. Most pertinent for the development of my current work and its relationship to the photographic itself has been the thread of self-referentiality in abstract photography. As stated by Winfried Nöth, “[t]he abstract photograph is neither a non-sign nor an empty sign. It is not an allreferential, but a self-referential sign; a sign which has its referents within itself, in a network of internal references to forms, reflections and shades of light. It is this system of internal references which makes the abstract photo a pure light composition”\(^6\). The images I make are abstract, there is a visual code to them, but at their heart they do not have the traditional sign as a photograph does. As a result, they fall into the self-referentiality discussed by Noth, especially as it relates to the process of their creation. The resulting abstraction comes to comment on that process, and photography’s relationship with the mechanical.

Through this letting go of control to the mechanical, my current work begins to approach certain ideals of generative art. This relationship with generative practice comes through the presence of an autonomous system in this work that makes aesthetic decisions, as defined by Sol LeWitt, “[t]he system is the work of art: the visual work of art is the proof of the system. The visual aspect can’t be understood without understanding the system. It isn’t what it looks like but what it is that is of basic importance”\(^7\).

Thus, while retaining some of the aesthetics of modernist painting, and technically resembling the modernist ideal of photography as being a truthful document of the world as captured by the


photographer, as seen in the work of Capa or Cartier-Bresson, this work subverts the ideals of that period. Rather than being created by the mythical artist in control of the world, this work is made through a collaboration between man, machine, and chance, with no clear single author in sight.

The ideas of generative art translate into photographic practice through the writings of Gottfried Jäger, a German photographer and theorist. In a set of theories which Jäger puts forth as “Concrete Photography”, and defines as, “nonfigurative, self-referential, image-giving photo-processes that are based on a systematic, constructive foundation”\(^8\). Jäger describes a photographic method that is a productive process, rather than reproductive; stating that the lens-based photographic tradition only reproduces, bringing nothing new into the world. Jäger’s generative process based Concrete Photography, by creating new compositions rather than capturing the world around us, is a productive form of art described as, “pure photography, occupied only with its means, not with its meaning or associations”\(^9\). In this tradition, the images that make up my terminal creative project are productive; machines themselves create the drawing-producing a unique trace of their dance across the paper.

The ideas that permeate the work in my terminal creative project are ones that have motivated photographers for decades now, from the early Vortographs made by Alvin Langdon Coburn in the early 20th century to the gigantic photographic sculptures created by Mariah Robertson more recently. Explorations of the combination of abstraction and process has a long

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history, although one not generally considered part of the historical canon, and over the past few years it has become a major thread of contemporary work with several other photographers exploring the importance of both abstraction and the physicality of the photographic print, acknowledging that it is both a flat image and a three dimensional substrate that the print exists on as well. The work of Mariah Robertson, Liz Deschenes, Wolfgang Tillmans, gives as much thought to form as it does to image. Similarly in my practice, the physical print’s presence in space is an essential consideration in the making of work, as is shown through the physical presence of the reflective pieces that make up my terminal project.

The Darkroom

As digital practices continue to expand and the analog photographic process is increasingly thought of as an outmoded practice, an opportunity for artistic production presents itself through an exploration of an ‘obsolete process’\(^\text{10}\). In this case, the exploration of analog processes has helped to further my practice, especially as it relates to the documenting of a process or phenomenon. As stated in her seminal book, *On Photography*, Susan Sontag defines a photograph as, “...not only an image (as a painting is an image), and interpretation of the real, it is also a trace, something directly stenciled off the real, like a footprint or a death mask”\(^\text{11}\) (Sontag, *On Photography*, 154). The images I make are direct traces of the process I explore. *Mordançage* work is a direct trace of the flow of water and chemistry, and my terminal creative project is a direct recording of the motion of these machines, a ‘truthful’ document of their


passage across the paper. This visual information is all there, coded, and is just as telling of the motion of these machines as a video is, provided they can decode the visual system that describes their light and motion. While there are ways to accomplish similar aesthetics using scanners or long exposures, the inherent truth factor of the analog process is an essential aspect to this work - the paper was actually exposed by the motion of the machines across it - there is no translation through a negative, a digital sensor, screen, printer, etc, and as such, they are an actual direct record of the phenomena captured, and act as evidence for an event that is impossible to identically reproduce.

These works act as an index; a truthful representation of an event that occurred, produced by mechanical agents. However, due to the productive nature of the work discussed earlier, these works take on an aura, directly calling into question the claim Walter Benjamin makes, where, “that which withers in the age of mechanical reproduction is the aura of the work of art”\textsuperscript{12}. Despite being mechanically manufactured, these images cannot be recreated - they capture an unrepeatable instant, freezing it forever directly onto silver; acting as a record of the fleeting dance of machines.

Conclusion

The work in MBAP stands as an important step in my exploration of collaboration, chance, and generative processes. Through these explorations, I investigate how phenomena is recorded, working in collaboration with the machine to produce a record, rather than reproduce a moment. The record produced by this collaborative process records the moment, but becomes a

\textsuperscript{12} Walter Benjamin, “The Work of Art in the Age of Mechanical Reproduction”. 1936
coded document, impossible to decipher without an intimate knowledge of the process. This work, like the work that has preceded it, has a strong sense of aesthetics and through these formal concerns, the work tethers itself to painting as much as it is connected to the photographic concerns that drive the work conceptually. The installation of this work in Disjecta stands as the culmination of these explorations. Two identically manufactured rolls of paper exposed with marks made by machines quietly exploring the page. At once referencing conceptual art, contemporary photography, abstract painting and sculptural notions, all in the same simple elegant gesture.
Bibliography


Image List

1. Untitled, from *Emulsion* (2012)
2. Untitled, from *Mordençage* (2013-4)
4. Untitled, from *Mordençage* (2013-4)
5. Untitled, from *Mordençage* (2013-4)
8. MBAP #3, from *Machine Based Artistic Production (MBAP)* (2014-5)
9. MBAP #12, from *Machine Based Artistic Production (MBAP)* (2014-5)
10. MBAP #13, from *Machine Based Artistic Production (MBAP)* (2014-5)
11. MBAP #14, from *Machine Based Artistic Production (MBAP)* (2014-5)
12. MBAP #15, from *Machine Based Artistic Production (MBAP)* (2014-5)
13. MBAP #18, from *Machine Based Artistic Production (MBAP)* (2014-5)
14. MBAP #19, from *Machine Based Artistic Production (MBAP)* (2014-5)
15. MBAP #20, from *Machine Based Artistic Production (MBAP)* (2014-5)
16. MBAP #25, from *Machine Based Artistic Production (MBAP)* (2014-5)
18. MBAP #29, from *Machine Based Artistic Production (MBAP)* (2014-5)
20. MBAP #31 & #32, from *Machine Based Artistic Production (MBAP)* (2014-5) Installed in Disjecta Contemporary Arts