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Lesser Than Greater Than Equal To: The Art Design Paradox

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A thesis submitted in partial fulfillment of the requirements for the degree in Master of Fine Arts

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Abstract

Alongside a Masters of Fine Arts thesis exhibition, *Greater Than Lesser Than Equal To*, this dossier has five components: an introduction to the dossier, an extended artist statement, documentation of my work with an introduction, an interview with Sean Caulfield and my Curriculum Vitae. Together they present and illustrate my research around the question of art and design, and a brief exploration of how they operate (mutually and competitively) within the everyday of contemporary North America. As well, they allude to how my work developed in its present form. Through the “print-structures,” I explore the nature of design and art together, in combination with mid-20th-century influences, with the intention to emphasize the accessibility for a viewer that is enhanced when the two are combined.

Keywords

Art, Design, Printmaking, Everyday, Borderland
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Introduction

This thesis dossier is presented in tandem with my MFA Thesis exhibition, “Greater Than Lesser Than Equal To,” which takes place in the ArtLab Gallery from May 3\textsuperscript{rd} to 19\textsuperscript{th}, 2017. This dossier includes a comprehensive artist statement, a written practice component in the form of an interview with Sean Caulfield, and documentation of my practice. Together these elements represent research carried out over the course of my MFA Candidacy in the Department of Visual Arts at Western.

My Comprehensive Artist Statement is broken down into five separate sections. The first section addresses my overall research and thinking. The proceeding two sections describe how I navigate this research through my process and work. In these sections, I draw connections between my concurrent use of design—specifically graphic design—and art, and how I consider the relationship between these two categories. I examine the influences that art and design have on contemporary culture, and I consider how we orientate ourselves within a design-centric culture. In the fourth section of my Statement, I address my work as an attempt to grapple with the paradoxical relationship of art and design. My work represents both my research into art and design and an exploration of how they operate (mutually and competitively) within the everyday, in the world today. The final section is a brief conclusion.

Following my Artist Statement is an Interview with Sean Caulfield, a contemporary printmaker, and Centennial Professor at the University of Alberta, in Edmonton. Caulfield’s own interests lie outside of the relationship between art and design, but they revolve around the contemporary conundrum between the industrial and the natural. This research focus, as well as his technique and use of the printing plate, have been important influences for me.
The Third and final section of my dossier consists of my Practice Documentation, which offers a chronological overview of my work since entering the MFA Program. An indication of the work presented in my MFA thesis exhibition is also included here. Along with material and titling information, this documentation includes a brief description of each work and the technical processes involved in producing it. The documentation is intended as an aid and a visual reference for the preceding document, my Statement.

The elements of this dossier represent the research and exploration I have done during my MFA candidacy concerning the relationship of art and design and their vernacular function in contemporary life. This text contextualizes my shift from traditional woodblock matrixes to print-structures, which I then used as areas for exploring the paradox and subsequent conundrums I observe and explore in my interactions with the nexus of art and design.
Comprehensive Artist Statement

Through my work, I aim to explore and cultivate the permeability that exists between art and design. This borderland between art and design is accessible from either side; each draws respective qualities from the other that can disrupt apparently set paths, and each feeds into the others’ techniques and concepts, influencing them. In exploring and cultivating this borderline in my work, my hope is to introduce art back into the everyday experience of the individual who perceives himself or herself at a distance from art. I attempt this re-introduction through various forms of production and dissemination. These are used in combination with the traditional use of the gallery, as established through the institution of art.

The Art-Design Paradox

Design is perceived as having the ability to directly influence our daily lives through many tangible forms, from product design to graphic design. Art is often located at a removed position, operating in an arguably more remote sphere. My work and research draw from several influences: Russian Constructivist artists such as Alexander Rodchenko and El Lizzitsky; and modern designers including Alvin Lustig and Erik Nitsche. These influences will be considered in relation to historical Canadian uses of the graphic poster illustration, drawing from posters that promoted travel to Western Canada. I will focus on their shared used of geometric motifs, and how the simplification of shape and figure was implemented to promote visual accessibility and understanding. I see a point of connection between these examples and the work of the contemporary “visual
strategists” of NASA’s Jet Propulsion Laboratory, known as “The Studio,” which references similar “vintage” influences to inform their designs.¹

For some, art is thought to have lost touch with the layperson, moving beyond the possibility for general understanding, or even the ability for appreciation. This has raised discussions concerning the purpose of art and the benefits of supporting it, and where that support is coming from.² Through both my personal experience, and my ongoing MFA research, I have come to think that artwork, at least in North America, is becoming a mode of “enjoyment” available to those who can afford it, or those who move beyond the mainstreamed societal experience, often through education. Art is available to a select few individuals that choose to study and appreciate it in the forms that it has taken, or those who can afford it as a purchasable commodity.³

A third category audience is made up of those people who utilize design as an access point into art, without making a clear distinction between the two. Speaking personally, after switching from a New Media Program into a Bachelors of Fine Arts, I found that I was expected by some to translate this decision into a monetary or career-orientated goal. My personal experience of social pressure to justify the choice to pursue


art thus led me to consider the intersection of art and design. I am invested in the possibilities of how this intersection might help to bridge the significant distance that has been established between the layperson and art. This gap instigates an “othering” effect onto such humanities-oriented practices, promoting a system whereby social progress is often directly related to production and consumption, measurable financial or emotional benefit; the humanities are displaced from being career-oriented to a leisure activity, an available pastime for when work is complete. I would note here the aforementioned gap between art and portions of society is often filled by inadequately conceived or poorly represented, ideas. This familiar mass of imagery is produced through forms of inferior design, often made by untrained individuals, like such things as “male-enhancement advertisements” or numerous videos of cats. In this regard, some argue that art imagery can be expanded, enabling us to use our cell phones to create what Hito Stereyl calls “poor images” ourselves, the images commonly found in spam emails and on social media.

On the surface of things, it appears that as a partial response to this confusion in the visual field, some contemporary graphic designers draw inspiration from the Pop Art movement, and from Mid-twentieth century designers, to produce visually familiar poster

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series like JPL’s *Visions of the Future* posters. Yet designers may indicate little understanding of the influences and restrictions that were placed both technically and socially on those movements. Instead, they draw upon the visual form of the image to replicate a “vintage” style, assimilating the use of familiar visual tropes; large areas of color, and the simplification of form, and minimal text that allow for an easily comprehensible and nostalgic poster to produce a design that ‘looks like art.’

To consider “art” specifically for a moment, it could be said that the responsibility to try to understand the work of art remains largely in the hands of the viewer. I would argue that the work itself should be able to provide a point of entry for people of varying backgrounds and not only to those who have access to exclusive sets of knowledge or significant financial capital. Marcel Duchamp summarized one attitude to this when he addresses the intentions of his readymade objects: “All in all the creative act is not performed by the artist alone…the spectator brings the work in contact with the external world by deciphering and interpreting its inner qualifications and thus adds his own contributions to the creative act.”

While not all artwork will be accessible to everyone, nor even accessible to people outside of the “art world,” the gap between art and the layperson may be rapidly expanding, both from a lack of access to art and perhaps due to an expanding emphasis on business- and science-centric scholarship in post-secondary

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7 See Figure 1.

institutions. With society’s focus shifting continually towards efficiency in daily life, the
disjunction between art and the layperson is becoming even more problematic.\(^9\) In
response, one could argue that art, as well as the broader field of the humanities, needs to
be more readily available to a larger audience. Moreover, as an alternative, design as a
larger structure, while a valuable and important part of our society, does not generally
operate on the basis of speaking directly to the individual, operating instead in a more
generalized and commercially viable way.

Donald Judd stated, “Design has work, art does not.”\(^10\) Here he seems to suggest
that art allows for the expression of individual creativity and the pursuit of questions
without offering definitive answers. Design functions to address consumption and need.
In so doing, design might influence the viewer’s perspective or actions. In other
instances, design may serve no functional purpose other than to create visual fluff or
promote materialistic excess, superfluous commodities, or imagery. Clearly, both art and
design serve a purpose, and each has its place. However, where design has penetrated
into our daily lives, art, in general, has been shifted to operate on the periphery, outside of
the realm of the common individual. Despite the subversive intentions of the Avante

\(^9\) Kent, Eliza F. 278.

Garde movement, art is often confined to realms of exclusivity and the realm of elite individuals.11

With art and design operating in a paradoxical relationship, the “borderland” which I position between the two may be permeable from either side. With each drawing from the other what is needed to continue along their apparent respective paths, neither art nor design can or should exist without the other. That said, the act or the intention of art or design process differs, as is evidenced by the end product. Art creates critique and questioning. Design, in many forms, can act as a manipulator or motivator to influence our decision-making.12 It is aesthetic or materially influential but directed towards creating solutions and answering questions.

The distinction between art and design production can be at times unclear or undefined, but if we consider art production in relation to the “gift,” a concept defined by Lewis Hyde in his book The Gift, we may make further headway. In Hyde’s thinking, the gift is a constantly moving object of perceived value and meaning, inherent or social, not meant for capital gain.13 While Hyde’s framework does not fully ignore the use of the valuable material in the production of the “gift,” the value exceeds that of the materials we would consider to exist in the category of the “gift.” In contrast, the products

11 Andrea Fraser, "L’1% C’est Moi." 197.
generated through design are often part-and-parcel of an overall process directed towards capital gain, produced as a means to an end. The end goal, the apparent intention proposed through the realization and ultimate function of the work, is one method we might employ to identify the distinction between art object and design object.

That said, a distinction based on the procedures for making does not always hold. Considering art and design in terms of a dialectic, where one cannot exist without the other, a distinction based on the procedures for making becomes a false one. Indeed, if art and design act in a dialectical relationship, then one cannot clearly define them as separate modes, and in certain cases, the end goal or function of the object may induce a conundrum as to whether or not the product can be classified as “art” or “design.” This entails a number of possibilities: of either contemporary art or design being alternatively, or even wrongly, categorized, or unfixed, and the possibility of a shift from one to the other when the finished product is removed from the contemporary time or context of its making. These possibilities are illustrated in our contemporary perception of historical posters from the Russian Constructivists, or through the alternative function of architecture as a form of art when translated into other mediums, such as Alexander Rodchenko’s 1930 photograph, *The Stairs*.

It is often assumed that designers do not want to be directly tied to the idea of art, and artists do not want to be “limited” by the apparent structures of design. Yet if both are in a dialectical relationship, then the differentiation exists more in the intention of the act and less in the identity of the conductor. There have been instances of this in the past where there has been a clear crossover between art and design, where intention and the
end product have met in a space in between, or in the borderland. The works of Donald Judd and Paul Rand are examples of this.

Design began to flourish in the mid-twentieth century, with designers no longer limited by restrictive design approaches and free to incorporate more “artistic license” in their work. This was a point in design history when the field found itself pushed and propelled by various ways. Speaking as someone especially interested in printmaking, I relate this shift, at least in part, to the increase in the use of screenprinting, and the possibilities that this medium offered. This shift, in turn, influenced other print media like lithography.

**Design, Art, and the Corporation**

In a muted sense, the corporate use of design can be compared to propaganda, with corporations looking to influence the appearance of themselves through product or graphic design, test-marketed logo designs, and effective advertising campaigns. A company’s design is fed through corporate checks and balances to ensure that it fits within the corporate image. For example, in his work with General Dynamic from 1955 to 1960, Eric Nitsche created numerous posters that romanticized the company. The effectiveness of these posters, and of the design style as a whole is reflected in popular culture today, in poster series like “Visions of the Future.”

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14 See Figure 1
Design can function as a corporate tool, and much design has become corporately driven, from industrial design to branding. This is not to say that all designers are truly driven in such a way. Nonetheless, for the most part, the production or realization resulting from the work of designers is subject to corporate objectives. For example, we can consider Dean Kamen, who operates in a sphere of design that addresses the needs of physically challenged individuals. Seeing a recurring design problem in wheelchairs that keep them low to the ground and so unable to travel over rugged ground, curbs and up stairs, Kamen developed the *iBot* wheelchair. This being an utopic designer’s dream, yet due to its inaccessible cost, that chair suffered low sales, being discontinued for the mass market.\(^\text{15}\) In light of this, we might say that the social and impactful ideals of design get caught up in the world of the corporation and are inevitably exploited for financial gain. Design is not innately cheap, but it is eventually cheapened through corporate agendas.

The Corporate agenda undermines the kinds of social involvement encouraged by the projects of the mid-twentieth century designers. There we see graphic designers, whose end goals were not completely separated from the aspirations of artists at the time, for indeed there was an overlap between the two groups, as there always is. One saw designers engaging with smaller not-for-profit or organizations concerning the environment, equal rights movements, and other pressing movements taking place around

the world. Examples of this are posters; *We Remember Wounded Knee* (1972), by Bruce Carter, and, *Eat* (1967), by Tomi Ungerer. In these instances, we can see that through those programs, design, while not working for the purpose of a corporation, was helping impose an agenda through graphic engagement. So, where artists at that time were challenging and questioning the status quo, offering value outside of the promotion of commerce itself, designers were also driving a social agenda, offering a solution within commerce. By contrast, today design as a whole, whether industrial design or graphic design, has taken a front seat, operating in the marketplace becoming a constant, market-driven influence.

**Posters, Abstraction, and Recent Responses**

Through my interest in the history of Canadian promotional posters, such as those related to the Calgary Stampede, the CP tourism posters, and early posters promoting immigration to Canada, I developed an interest in graphic culture and how it relates to the everyday. Admittedly, much of the “art” that I was surrounded by before attending my BFA was the sort of the genre just described. My personal background and taste also sparked my interest in the distinction between design and art, because these posters were not only evidence of the power and appeal of design, but also suggested something of a consideration and understanding of art history, specifically of art’s potential to influence and inform the viewer through its reliance on visual language rather than textual information. This particular awareness of visual influence, occurring early in the twentieth century, was further developed later with the popularization and technical developments in screen printing in the nineteen thirties; this was in keeping with the
movement towards streamlined designs that seemed to suggest accessibility, and as well as affordability. What resulted was the paring down of information to the essentials, leading to advancements in branding and the continual development and integration of consumer culture – leading to what we understand today as the “logo.” This accelerating development continues today in contemporary design, from branding programs to the linguistic reductivism we regularly encounter in consumer culture. One example of this is the common use of acronyms like IBM,( for International Business Machines), and the shortening of words when using short message services, like texting, which influences language usage in design.

At an earlier point in my education as a graphic design student, my recognition of this shift in design aesthetics propelled my move from graphic design to studying art. With this shift from one to the other, I was left in awe by the justification that people needed in order to understand the switch. It led me to question the way people view the humanities and my transition from one to the other. Indeed, it was my hope that a move to art could help me address a perceived general lack of empathy towards the humanities. This includes misconceptions introduced to me on a cultural level, including surrounding the purchase of Barnett Newman’s Voice of Fire by the National Gallery of Canada in 1989.16

My interest in poster design and its influence on my artwork extends into the contemporary poster production, like work produced by JPL’s graphic Studio. JPL’s designers work with NASA through the California Institute of Technology in order to recognize their historical lineage in a visually compelling and convincing way. JPL’s Studio works in a way that is stylistically comparable to how Eric Nitsche conducted his work for General Dynamics between 1955-1960.\textsuperscript{17} At that time, General Dynamics wanted a friendlier image and to promote a less aggressive public opinion of their work; to be seen not solely as a military company but as a provider of safety or defensive necessity.\textsuperscript{18} A similar stylistic approach and agenda also informed Canadian Pacific tourism posters of the early 20\textsuperscript{th} century, which moved towards the use of more highly simplified, block-like fields of color. Designers and illustrators employed a form of geometric abstraction to simplify the shape and form of poster designs. By limiting the text and allowing the information in the posters to be condensed into the image, they provided the viewer with an image that was easily consumed, creating an overall more “decorative” scene.

Both General Dynamics and the Canadian Pacific Railway Company used their advertisements to influence social perceptions, and poster designers obliged, contributing to a romanticization of each company. For Canadian Pacific, this meant counteracting a nineteenth-century perception of the West as a “tough” place, no longer just for

\textsuperscript{17} See Figure 2

settlement and for pioneering. In the twentieth-century, Western Canada was to be presented as a tourist destination, the mountains an attraction as opposed to a hindrance to settlement.\textsuperscript{19} For General Dynamics, romanticization meant revising their appearance as a weapons provider and aiming instead to be seen as a defense contractor: a protector\textsuperscript{20} rather than an instigator.\textsuperscript{21} The romanticization of each company’s legacy and landscape was achieved through graphic design. In both instances, of course, the designers used design’s strategies involving colors, shapes, and simplified imagery that would promote familiar, warm, and appealing associations for the viewer.

Today, \textit{JPL Studios}, emulates these sensibilities with a series of posters, like \textit{Visions of the Future}, romanticizing the ideas of space travel and the opportunities it presents. JPL’s Studios and many other design firms draw from this “vintage” or “retro” style, benefitting from its previous successes while operating in a way which is historically significant for design and art. This style of graphic design encourages an appealing response from the viewer through nostalgia, and it is by no means the only design style to effectively achieve this in contemporary pop culture. Certainly, the \textit{Visions of the Future}\textsuperscript{22} series by JPL is strikingly similar to some of the early CPR

\begin{footnotesize}
\begin{enumerate}
\item[19] This could also be connected to the renewal of the Banff Springs Hotel, one of Canada’s ‘Grand Railway Hotels’
\item[20] Clifford, 110
\item[21] The poster series was created in relation to the ideas that they were working towards nuclear energy for military and commercial purposes, though since it was proprietary information Nitsche was not able to include anything in his poster designs beyond some symbolism. The atom for example.
\item[22] See Figure 1
\end{enumerate}
\end{footnotesize}
posters, or posters that were produced for General Dynamics. JPL’s imagery promotes tourism and travel to places that are arguably fictional, not fully developed or explored, yet people are inspired by the posters’ warm and appealing colors and designs.

Design, Art and My Own Practice

My work draws historical connections between art and design, and my practice considers the close relationship that printmaking has had with the two spheres. Print media has existed on either side of the borderland between art and design for hundreds of years, from the era of the invention of the Gutenburg press, and earlier, with developments involving moveable type. Arguably print media has existed on either side of the “borderland” for hundreds of years, working as a process of democratization of knowledge, and offering its influences. Ultimately, print in its many forms has fueled both art and design, from Albrecht Dürer’s (1471-1528) numerous etchings and woodcuts, to James Gillray’s (1756-1815) Political Caricatures. Though working in different eras, both Durer and Gilray utilized printmaking’s capacity to be disseminated widely, to spread images and ideas throughout their culture. Where Dürer’s work could be considered within the more traditional context of art, Gillray functioned in what is more akin to today's contemporary graphic design field, offering a critique through the

23 See Figure 3
24 See Figure 2
use of caricature. Both artists exemplify print media’s ability to effect change: their works reached into the household, as an extension of the town square. They served both as disseminators of knowledge and as prompts for questioning knowledge.

Printmaking’s intended function is to produce images in mass quantities. As a medium of expression, it has been historically considered for its capacity to produce non-precious art objects, enabling the “original” image to exist as a multiple. As an artist, I focus on both the production of the multiple and the necessary and corresponding potential for printed work to be restricted in numbers. This is where I locate printmaking’s success as an art form, and where one of my main interests in it lies.

In exploring the described borderland between art and design, my intention as an artist is to help bring art, in some form, back into daily life. While I understand that this has been the intention of many artists in Modern art history, from the Avant-garde to the Gutai and Performance art movements, to name a few, I hope to add to the conversation through my research and work. Using print-based methods of dissemination enhanced by design’s potentiality, I hope to achieve a broader presence for my work in the everyday. While at an earlier stage I considered the possibility of doing this through larger installation work, I have recently moved towards producing smaller multiples, following the same visual structures as my large pieces. These have recently been shared through existing social infrastructures for knowledge dissemination, such as the public library.

My Library Project is based on the space and the idea of the public library. Through this, I aim to access a larger audience who, in taking advantage of the library, appear to desire a form of stimulation beyond just what they have readily available to
them in their home contexts, via the Internet, television, and other forms of popular
culture. I felt that the institution of the library is appropriate for my project, based on how
the library functions in the community. The library’s physical location feeds into the
exchange of knowledge but operates outside or in addition to those forms of knowledge
exchange that occur online. It offers both the physical opportunity of going into the
communal space and functions as an institution of some discernment through the vetting
of materials and information. Originally the library was conceived of as a place to share
the knowledge of a society with the whole society. So, the connection between the work
on display in my MFA thesis exhibition, and my work that was present in the Library
Project is important. Both components could be seen to draw from the other, and in some
cases, they readily “produce” each other. The works in the library operate in an indexical
relationship to my work in the gallery, either through the evidence of similar designs or
due to the fact that some are direct reproductions: some of the prints for the library were
produced from the print structures in the gallery.

By using the processes of printmaking; the preparing of the matrix, the printing of
the image as a form of mediation whereby the matrix is treated as a generative vehicle, I
am engaging in a mode of production that exists outside of today’s commercial design
processes. Moreover, much of contemporary graphic design production takes place on the
computer. By producing physical plates by hand instead of using a digitals means of
production, and by printing those plates or using them as the basis for sculptural objects, I
differentiate my prints from the graphic design products that now exist in the everyday. I
consciously choose this differentiation, the physical over the digital, in part because it
allows the viewer to interact with the work in their physical space. My practice allows for my tactile interaction as a maker. Therefore, not only is the work differentiated through its physicality, but it is set apart through its production. When considering the *Library Project*, this distinction between the physical and the digital was an important one to draw out: I wanted to produce a physical object and give it a presence in the space of knowledge dissemination, rather than offering the designs digitally through an online source.

In reflecting on how such work came to be, I would assert that my interest in the production of the multiple is one of the leading reasons for initially starting to produce woodcut prints, with the serialization of the print form following shortly afterward. The ability to reproduce distinct serialized images that could connect and come together in a larger more intricate unit propelled me to create multi-plate print matrixes combined into printable structures. Moving beyond the plate and into a three-dimensional object then allowed my works to operate as an index of the means of their own production, while also enabling them to occupy a three-dimensional space. The works create a presence, moving beyond being solely matrices and becoming printable sculptures. Opposing the limitations of the print on the wall, my choice to present these “print-structures” in the gallery space encourages these works to better occupy the borderland between art and design. The work deviates towards neither side, operating as a conundrum of production and bringing the contemplation of art to a designed object, even as they bring the consideration of design to an art object. Through fostering this exchange, I argue that I am differing from previous readings of historical art and design connections, such as
were associated with the Bauhaus or the Arts and Crafts movement. Both of those movements attempted to bridge design and art: they suggested an answer and a question, and they aimed to create functional solutions. However, neither moved beyond the practicality of the object and instead remained tied to the use of the object.

For me, the dimensions of the matrix continuously influence the creation and layout of the pattern. The physical shape and scale of the matrix informs a pattern directly through the use of a grid, which acts as a deductive structure applied to the area of the matrix itself. I have found the reduction of the matrix into the image, the influence that the scale and dimension have on the pattern, specifically when working with the “print-structures,” to be productive and engaging steps in my work. The print is operating as an index of the matrix since the print itself is a reproduction and constituent of the surface area. In this relation between print-structure and matrix, I see the deductive structure of the grid operating in a similar fashion to the indexicality of the print. Each segment of the structure is a serialized single plate which, when combined, comes together to create a larger and more intricate print or structure.

In addition to the foregoing, this process also creates an index of the production of the matrix. The creation of the matrix within these “print-structures” not only introduces the idea of design onto the art object, but the amalgamation of the matrix creates an object other than the matrix. This produces a sculptural object that has a function, while also constituting a sculptural object that is the index of its function: to generate a print. The intended purpose of the sculpture is inherent within itself. The desire for the action of the form is activated in the viewer, who simultaneously creates it through the recognition
of the object’s function and also denies it through the recognition of the object as a sculpture. The impulse of the viewer to use the sculpture as a tool, to interact with it, remains integral to the work. It is important that this indexicality remains apparent, though not dichotic, in the work.

Regarding the graphic “look” of my work, my use of the monochrome black throughout my prints, including works beyond the aforementioned series, lets me trace the development of my work as a whole and anticipate future projects. The decision to treat each printed work in this fashion provides a stable point of entrance and acts as a formal intersection point between projects. As well as removing the possible confusion inherent in introducing color in the work, I draw from the visual familiarity of the simplified and historic black and white print. Regarding formal “shapes” in the work, each print or section of the structure remains distinct while the continued use of the circle allows for another connecting point between the differing projects; in itself, the circle represents a repeating form within a repeated form.

Though I am not offering a traditional narrative or a direct representation of my thoughts, I create figures that a viewer can digest and process from their own point of view. Fostering this association between projects suggest the possibility to the viewer that my works all connect and interact to create a larger whole.

Conclusion

Design surrounds us on a daily basis, influencing us and directing us through structures in space, society, and even within our personal routines. We are starting to live in a designed world. It is operating in all areas of our life, while outside of those of us
who choose it, art appears to operate on a daily level among a very few, thereby excluding many individuals who do not have the ability or knowledge to be able to access and understand the work, possibly silencing their “presence” in the work. Drawing on the intersection between art and design, using structures seemingly based on a concept of “non-composition,” mentioned above, I am hoping to reach a larger number of people, to provide them an access point, or to help promote an interest in art itself. I offer work that is not driven by a social purpose, but instead represents an exploration of a question, not providing the answers, instead offering up implied insights. Mainly, I propose the opportunity for the viewer to ask the question, to experience and explore an answer for themselves, allowing them to transfer their own personal ideas and desires onto the work, and experience it from their own unique point of view.
The Grand Tour from JPL Studio’s Visions of the Future poster series, 2016. JPL’s Studios is a contemporary design group working under Jet Propulsion Laboratories.
through the California Institute of Technology. *Visions of the Future* is a fictional poster series promoting immigration and tourism to various destinations in space.

Figure 2 - Mid 20th Century-Lithograph

(Convair 880: World's Fastest Jetliner by Erik Nitsche for General Dynamic, 1960. Nitsche’s work for GD was complicated because he could not directly show their products due to their proprietary designs. Instead, Nitsche shifted towards geometric...
abstraction and implemented visual metaphors to create a romanticized image for the company.

Figure 3 –Early 20th Century Lithograph

*Travel by Train*, by Norman Fraser, 1937. Between 1912 and the 1920’s there was a rapid shift from posters promoting immigration and tourism to Western Canada.
Bibliography


Kent, Eliza F. "What are you going to do with a degree in that?" *Arts and Humanities in Higher Education* 11, no. 3 (July 3, 2012): 273-84. doi:10.1177/1474022212441769.


**Figures**


Practice Documentation

My work has developed significantly since the start of my MFA candidacy, from when I was initially using a wood plate intaglio-like method, to the print structures that I have come to embrace as my artwork. This practice documentation section gives a brief chronological overview my work. It includes captions which indicate the title, and dimensions of my works, including the pieces that are included in my thesis Exhibition, and a brief explanation of the process I used in making the work.

Originally, I had been interested in operating outside of the traditional mediums of printmaking, in some way to circumvent or challenge the traditional processes of printmaking. I was, however, approaching it from a naïve point of view, with what I saw being a transgressive act, but failing on many fronts and thus hampering my own forward progression as an artist.

There was a substantial shift for me between my first and second semester of the program, where I moved away from the intaglio-like wood plates to a more traditional woodblock, while also shifting from the straight edge geometry to an exploration of the circle. The circle I feel is an interesting choice when working with the constraints of the form of the plate, from both a technical and theoretical standpoint. It is both a “representation of infinity” while being used graphically to create points of intersection or continuity in the prints, as well as between each print itself. The circle allows the prints
to be serialized and in essence be created infinitely (or until the plate is destroyed through the process of being used), allowing for large tile-like patterns.

This approach, however, still perpetuated my reliance upon the indexicality of the plate to produce 2D imagery from a low relief carving. This was a conundrum that I had problems with conceptually and was concerned to find a solution for my practice, especially one that I could relate back to my research interests. Through my research and the interview with Sean Caulfield, I eventually isolated the idea of the borderland which both allowed me to “clear the air” around how I was talking about my research and also lead me to the idea of the “print-structure.”

The “print-structure” has been an important kind of production for me, both technically and for the ability it offers to me to produce prints, and the apparent accessibility to the physical form it-can present to a viewer. And, the print structure is generative for me: the more I produce, the more it seems to offer me a large range of possibilities.

As an additional point, the use of the monochrome in my work has remained important and continues to remain important for me. Any deviations away from black and white seems to significantly weaken my imagery.
**Image 1** *Untitled*, Relief ink on Stonehenge, Hand printed. 8’x4’ November 2015
Will be presented in the exhibition

This piece and the proceeding piece was produced through the repeated printing of a piece of lath across the surface of the paper, with a blanket backer behind. The lath was moved across the paper in an overlapping pattern. The wood grain on the lathing was raised by using a steel brush to remove the softer wood and then preserved by waxing the piece.
Image 2  *Untitled Scroll*, Relief Ink on Paper, Hand printed. 30'x18” November 2015

Install shot from “Closed System/Sustainable Growth.”
Shifting from the waxed intaglio-like plates, similar to the lathing, I started to produce work from the more traditional woodblock plate, using a circular motif, as well as using the existing structure of the plate to help inform the production of the image. My method involved either laying out the grid in ratio to the plate or the intersections of the circles produced from the original starting point of the design at the edge of the plate. I also switched the positive and the negative as a way of emphasizing the design.
Image 1 *Untitled, serialized print*, Relief ink on canvas. 39”x 45” January 2016

Produced by printing one plate multiple times; each of my designs, in general, meets up along two or more edges, with a print of itself. Each print remains an individual action while connecting to create a larger whole.
Image 2 Untitled, serialized multi-plate print 3, Relief in on canvas, 24'x9' March 2016-Will be presenting the exhibition

Moving forward, I created several large series of segmented prints, which could tile together to create a larger more intricate pattern. The above is an example of a two-plate print, in which I explored the same pattern through two different methods. One was created with the use of a compass and measurements, and the other was a free-hand reproduction of the first.

Image 3- Detail of Serialized multi-plate print 3, on the left is the mechanically drawn print, and on the right, is the example of the print from the freehand plate.
Produced using a traditional woodblock, in combination with a collographic method, where a linear material, in this case string, is placed on top of a plate, either holding the ink on its surface or blocking it, to produce a trace. In this work, I have produced two images from one inking, one with the string present, left, and one with the string removed, right. The first acts as a block for the ink, and the second leaves behind an ink “shadow,” where the string had been. This allowed for a controlled yet more natural interruption of the prints that I had been producing up until then.

**Image 4** *Untitled, Relief Collograph 1*, Relief ink on paper. 28”x20’ each May 2016

**Image 5** Detail of string “shadow” from *Untitled, Relief Collograph 1*
Image 6 Untitled, Relief Collograph 2, Relief ink on paper. 20”x28” each May 2016
Variation will be present in exhibition

Drawing the string from the relief collographs, which through the printing process themselves became covered in ink, I was then able to produce a collographic print from the string. Placing the string on one piece of paper first, meeting it with one edge, I was able to mirror the image by placing the second piece atop the first, with the string sandwiched between.
Having received feedback about a shift from showing the print to showing the plate in tandem with my interview with Sean Caulfield, I made a shift towards the creation of the “print-structures,” this being the first iteration. However, I chose to continue with the serialized patterning had been present within my prints. To produce the “print-structures, I will first cut the plates to the desired size, before laying the pattern out onto the surface. I used a router to carve out the larger areas.
Image 13 Document of “I Know what you did Last Summer” (MFA Group Exhibition), October 2016, Including *Untitled, Print-structure 1, Untitled* (Sculptural Mobius strips), and *Untitled*, Serialized multi-plate print.

Figure 10 Install December 2016 Critique, Including *Untitled, Print-structure 2 and 3*
Figure 11 *Untitled, Print-structure 2, 3’x8’, Relief Ink and Pine Plywood.*

Will be present in exhibition

This “print-structure” represents the first mobile print structure, that is meant be used as both the tool of production as well as the produced object. The structure is both a tool that can create a repeating serialized print while being produced from repeated serialized elements.
Interview with Sean Caulfield

Sean Caulfield is a Canadian printmaker, researcher, and educator based out of Edmonton, Alberta, where he has held a Centennial Professorship at the University of Alberta since 2011, and previously taught printmaking from 2000-2010. Before the University of Alberta, he taught as an Assistant Professor in printmaking at the University of Illinois, Normal, Illinois. He received his Masters of Fine Arts from the University of Alberta in 1995. His work has been featured in publications like “Inno’vation,” a collection of essays by some top researchers in Canada from a wide range of disciplines. Working primarily as a printmaker, though he also draws and does sculptural work, Caulfield has done collaborations with various researchers from numerous research disciplines, and with artists of varying mediums. Caulfield’s work encompasses a broad spectrum of topics; he often explores areas of cross-over where two opposing thoughts or positions seem to meet, drawing from multiple perspectives, both through his own practice as well as through multi-disciplinary collaborations. Through this approach, Caulfield enhances awareness for the viewer and helps them to form an opinion on the subject being addressed.

Caulfield’s work has revolved around intersections between seemingly opposing facets of the modern world, industry and the environment, for example. From these “borderlands” as he sees them, he studies and contemplates the impact that these facets
have upon each other. From early on in his work, for example, he has looked at the “borderland” between the industrial, and man; the natural, and the environment. As his practice has progressed, the refinement of his process has allowed him to broaden the exploration of the varying subjects that he wishes to interrogate. For example, in “Perceptions of Promise,” along with other researchers from varying fields, he explored the ethical and philosophical aspects of stem cell research, through visual, literary, and scientific means. “Perceptions of Promise” was a collaborative project, bringing together varying disciplines in an attempt to showcase the complex issues surrounding such research. The collaboration of varying disciplines allowed for multiple perspectives, providing the viewer with an in-depth dissection of the content. One example is Contained Body, a print depicting a wall that is both holding back, although it is incomplete, and also letting through varying natural qualities and effects. Describing through his prints a particular problem, he hopes the viewer can establish an informed understanding based on the many perspectives and angles provided to them through collaboration. Caulfield tries to embrace this unbiased approach in his studio practice where he interrogates the complex issues that are facing society today. Not merely giving us a general picture of the issues, his work digs in and provides an open yet analytical take on complex issues. An interrogation of this “borderland” allows for Caulfield to


work through problems from multiple perspectives, and this is combined with his use of multiple processes utilized in the production of his work. While his work is not solely produced in a collaborative process, he produces in such a way that through viewing the work the viewer is implicated as part of the collaboration.

The notion of “borderland” does not stop purely with the concept of the work, but also extends to Caulfield himself. As an artist, he often helps to facilitate an intersection of other disciplines with art. Through operating within this “borderland,” he is drawing on a network of information which allows for varying viewers to draw from it, promoting awareness and accessibility through his work.

Caulfield’s use of the “borderland” both as an area of exploration, but also as an interdisciplinary meeting point is an effective way to broaden the discussion surrounding the topics presented in his work and helps the viewer to delve into the pieces themselves. When the content is created from multiple points instead of a singular one, the work is allowed to become more impactful, more meaningful. His works are created with many points of entrance into the narrative, with many varying outcomes, depending on who is viewing them.

Caulfield’s use of scale in his work, both technically and as a theoretical method, is also well thought through. Yet he does not try to visually overwhelm the viewer within the space, either conceptually or physically. So, instead of allowing the image(s) to encompass the space they occupy and overwhelm the “meaning” of the work, through the
work, he presents the viewer with a form of information via the images and allows them to draw their opinion from his work.

Caulfield’s use of the woodblock and print, in general, reflects its historical use in the spread of knowledge. Moreover, that medium is, in his handling of it, a kind of borderland, operating from a historical position, to introduce contemporary issues. Historically, print has been a vehicle for mass production and disbursement of seemingly accurate, repeatable images, and text. While Caulfield’s use of apocalyptic-like imagery is influenced by figures like Albrecht Dürer, a master printmaker during the late 15\(^{th}\) and early 16\(^{th}\) century who used print as a way to explore complex scientific and social issues in his time,\(^{28}\) Caulfield’s use of this influence to create tension in his work. For example, “Leaking Shelter” embodies this successfully; depicting a vessel that is leaking fluid from varying cracks, it is made of wood suggesting the vessel will fail. Tension is introduced into the image through the atmosphere of the image, with the dark smog and backdrop, combined with the leaking wooden vessel, proposing that without change, the container will break down, releasing its content into the environment.

Printmaking has in the past played a key role in social critique, both at a high-art level as well as a layperson’s level, because of its ability to be spread as a multiple. While it no longer holds the historical position that it previously did, there is a certain weight to

printmaking, to the commitment of an indirect method of creation that allows an artist to contemplate and work on ideas and concepts, striving to represent their importance through a medium with a formidable history. Caulfield is not simply copying historical processes; he is instead adding to them. While he is offering the viewer a detailed interrogation of the subject matter, he is also offering them an elaborate, well thought through, visual image; his ability to adjust the scale to the subject matter, or space, speaks to his technical capabilities. His technical capacity adds to the viewer’s opportunity to appreciate the information that is being presented to them. The dedication that is used in the conception and creation of the works is reflected in the finished product, furthering the strength of the work beyond the separate means deployed.

In the interview below, Caulfield draws attention to the process of printmaking: its restrictions; history; and mindset; to help develop the work. Rather than resisting the process, he works through the unique requirements of the process to allow it to speak. He notes the process itself can offer methods of interrogation of subject matter. Allowing the process to come into the work, either through the inclusion of the woodblock itself or by demonstrating the restrictions that the process places on the creation of the work, Caulfield offers new methods of presentation or interrogation. While he is presenting contemporary social issues, he is doing so through a historical medium. Caulfield is not only drawing influences from the history of the medium, but he is also legitimating the use of hand printmaking in today’s digital age. Through the creation of conceptually and technically complex works, he is not replicating the historical graphic language, and not using the over taxed graphics of the digital world, but introducing his own unique style
into the mix. He is combining historical and modern techniques, using traditional wood carving tools, as well as power tools. For some of his projects, he is also using CNC machinery. Ultimately, by inhabiting the area of the “borderland,” he is placing himself as an artist at a gateway to the “borderland,” assisting the viewer, and also the other researchers that he is in collaboration with.

It could be said that from the interrogation of “borderlands,” Caulfield is not suggesting a method of change, but that change is needed, that the path that has lead us to the creation of these complex issues is not the same one that will help us to work through the issues. By proposing the question, Caulfield is allowing the viewer to form their own opinions on what or how change may happen. By operating in the “borderland” of printmaking where he is pushing the boundaries of print media, and not simply replicating the historical forms of printmaking, he is adding to them and further validating the use of a medium in today’s digital age. Caulfield shows a dedication to an indirect method of creation, drawing from historic graphic language as well as contemporary technologies, to move forward.

**An Interview with Sean Caulfield**

1-*What initially drew you to printmaking?*

For me there are some core principles involved with print that somehow seems to stimulate my creative process:

a) Working indirectly – Printmaking often forces you to work indirectly, which delays the creative process. I find this delay helpful as it forces me to slow down
my decision-making process. I feel (hope!) this results in more sophisticated work in the end. With this said, I also have a more direct drawing practice as well that enables me to shift the pace at which I work in the studio.

b) Resistance – I am drawn to printmaking processes such as intaglio and relief which force you to work in a material that provides a kind of resistance when working/drawing. It can be difficult to draw in copper or wood, they have a very particular quality that seems to ‘push’ back as you work with them, and my drawings/formal choices seem to improve as a result of this resistance. Of course, I suppose this occurs in almost any creative process where an artist is looking to enter into dialogue with the material, environment, instrument, audience, etc.

c) Process – Printmaking is a very process intensive practice. As with the above, I am drawn to the ways this slows my creative practice down and forces more opportunities for reflection.

d) Graphic language – I am also drawn to the strong graphic language that many print processes provide. As with the comment above about material, this graphic language provides a positive restriction. When drawing in a process like relief, one is often forced to distil and simplify, but this simplification can paradoxically open up new creative possibilities.

e) History – The history of print, both in the realm of fine art and illustration, has been an ongoing source of motivation for me in the studio.

-Why did you decide to continue primarily with relief printing?
For a long time, I worked primarily in intaglio on a smaller scale – with a focus on mezzotint. During this period, I made several collaborative artist’s books with writers. A few years ago, however, I began some new interdisciplinary collaborations involving biomedical researchers, scientists, and academics exploring the ways art could be used to explore ethical or philosophical issues raised by science or technology. At the same time, I also began to work collaboratively with a sculptor, Royden Mills. Roy was working at a much large scale than me, and over time I felt a need to expand the scale of my work and in a manner which revealed the physical process of working an image more. Woodcut provided me a way to explore both of these things.

In addition, collaborating with Roy encouraged me to make my own sculptural works alongside my print practice. However, even when I work three-dimensionally, my work still retains many of the ‘print’ characteristics that I noted above (graphic language, etc.).

2- Do you as a printmaker see art and design intersecting, and if so, how? And how do you use or see it interfacing in your work?

The most obvious ways that design has intersected with my practice has been the collaborative artist’s book projects that I mentioned above. For all of these books, I would collaborate with a writer for text, but I would also always bring a designer into the project, usually a colleague in our design program, Sue Colberg, to work on the typography and overall layout of the work.
Less directly I think my ongoing interest in the history of print and graphic media allows aspects of design and illustration to filter into my creative practice. For example, I have a strong interest in the historic scientific and medical illustrations, and I have no doubt that the design decisions in this historic work have impacted form and content in my practice.

3- You talk about the complexity of living in Alberta, with its dependence on oil and the effect that has on the environment. What about the complexity of using plywood plates in printmaking? While wood is a renewable resource, the harvesting, processing, and consumption of products like plywood leaves a large carbon footprint itself. What considerations do you take regarding this when you are preparing your work?

Yes, this is a good question as it is a tension I think artists are increasingly struggling with today.

The first thing I would say is that I believe there are cases in which the impact of work justifies the use of materials. In other words, an artwork might be created using very sustainable processes and materials but not be very successful in terms of its impact addressing environmental issues to viewers. At the same time, another artwork might make use of less sustainable processes but have a huge impact on a wide audience regarding environmental awareness. This is a balance we all have to consider in making art.

Another thought I would have is to say that I think we need to be cautious about what roadblocks we throw in front of ourselves in relation to an art practice. To my mind,
art plays an absolutely vital role in society, providing a unique and much-needed space for reflection and critique around pressing social, political and cultural questions, which in turn fosters a more innovative, healthy society overall. (If there is any doubt about this, just ask what is the first thing a repressive or totalitarian government does? – repress, censor and shut down artists and cultural institutions). So, yes we need to be cautious about waste and impact when we produce artwork, but we also have to remember that art plays a vital role contributing to dialogue around the complex issues in society, including sustainability.

4- How do you interpret scale impacting your work?

Most of the time I make decisions about scale through an intuitive process in which I wrestle with subject and form to find the right scale for the content of a work/series of works (I think this is fairly common for most visual artists). For example, I am working on a sculptural print now for an interdisciplinary project/exhibition exploring the theme of vaccines. Given this subject matter, it seems appropriate to create a work that is at the scale of the human body in order to speak to our own biology.

At other times, however, I am given a scale as a result of external factors such as a commission. When this happens, I attempt to make this restriction a positive, creative limitation.

5- In order to create the works, you separate your image into multiple plates. Technically, how do you resolve this? What processes do you use to plan and create your image and matrix on this scale?
For my large works, I simply lay a number of woodblocks on the floor together and begin to carve across the blocks to make a complete image. In the case of The Flood, the work was larger than my studio, so I would cut large sections of the piece together at one time (say 10 blocks), and then move them aside and carve another group of blocks together. This process involved a bit of back and forth to make the final image cohesive.

As part of my larger studio practice, I am constantly making small studies in my sketchbook. When I begin work on a larger block, I look to these sketches as a rough starting point but do very little preparation on the blocks themselves and rather start the images by just starting to carve. I work in this way to ensure that the working process can stay open and to allow for the work to evolve organically over time.

6- When you approach an installation work, like “The Flood” for example, how or where do you start when considering or imagining a work at this scale?

When I approached the curator at the AGA, Kristy Trinier, about a possible exhibition at the gallery I actually had a much smaller space in mind. After some discussion, she suggested the large Manning Hall space. I was a little overwhelmed by the scale, but after some reflection, I began to embrace the challenge she had set for me. To my mind, this is an important point as it is an example of a positive relationship between curator and artist in which a curator has challenged an artist to expand their practice, but at the same time also respected the core interests that the artist is pursuing.

Once I got into the project, the scale/space seemed increasingly to fit the themes I was trying to explore: complex questions related to the environment inspired by
a particular environmental disaster...this struck me as an issue that was right for a large-scale work that would have a mythic quality.
Bibliography


Finkelston, Adam W., Mr. and James E. Meara, Mr., "Sean Caulfield." The Hand Magazine, Issue #13, July 2016, pp. 28-33

Curriculum Vitae

Education-

2015- Bachelor of Fine Arts- University of Lethbridge, Alta.

Exhibitions-

2016- September- *I Know What You Did Last Summer*,
University of Western Ontario, London, On.

July- *Intersections*, (Solo Exhibition)
Trianon Gallery, Lethbridge, Alta.

January- *Closed System/Sustainable Growth*,
University of Western Ontario, London, On.

2015- April- *Halfpace*,
Trianon Gallery, Lethbridge, Alta.

February- *X 20*,
Dr. James Penny Building, Lethbridge, Alta.

2014- December- *Pensive- Abacus-Alienation*-(Solo Exhibition)
823 Gallery
University of Lethbridge

March- *Conjugation*
University of Lethbridge Art Gallery, Lethbridge, Alta.

February- *Marginal Benefits*
Dr. James Penny Building, Lethbridge, Alta.

Related Experience

2016- 2017- University of Western Ontario Teaching assistant, shop and technical assistance for Special topics sculpture
2015-2016
University of Western Ontario Teaching Assistant
VAS- 2236- Introduction to Print Media-Tricia Johnson and Colin Carney

2015- January- April

**Independent study of Experimental Print Media**
Supervised by Glen Mackinnon

**Bronze Casting: Lost Wax Method Class at the U of L**
Technical Assistant

**Studio assistant to Catherine Ross**-
Lost Wax Method and finishing, sculptural assistant

**Show Prep and Installation**
2017- **Annual Juried Exhibition**-
Student exhibition
Artlab, University of Western Ontario, London, Ontario

2014-

**Sense Like Blue-Exhibition installation**
*Dagmar Dahle-Mary Kavanagh- David Miller- Annie Martin*
Dagmar Dahle, Mary Kavanagh, David Miller, Annie Martin
Trianon Gallery, Lethbridge Alta.

**Mobile: Painting as a Practice of Peregrination**
Anne-Laure Djaballah
Dr. James Penny Building, Lethbridge, Alta.

**The Study of Where is Near**
Nick Wade
Trianon Gallery, Lethbridge, Alta.

**Volunteering**
Whetstone Magazine, Multi-Media Magazine,
Issue #3 2014 And Issue 4
Layout and Graphic design
Workshops

Lost Wax Casting-
September 2014

Writing for Visual Thinkers- Workshop
October-2014

Intersections
Multimedia group residency

Awards

2015/16 & 2016/17 University of Western Ontario WGRS-
2013 University of Lethbridge Faculty of Fine Arts Nominated
2011 University of Lethbridge Academic Achievement