

**IMPRESSIONS OF THE GRID:
VEIL, *VELO*, AND THE PRINTED IMAGE IN EARLY MODERN EUROPE**

by

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Abstract

Shortly after the initial experiments in linear perspective began during the early fifteenth century so too did the printed image begin to assert itself with increasing prevalence. As a purely linear medium, and with the presence of crosshatching, printed images visualize the grid in ways unlike that of painting. The grid is often presented within these images wholly and integral, as that which is not only responsible for mapping space but also for making space. However, the grid also seems to appear at its most salient precisely in the places within the image where it seeks to conceal or naturalize its presence; places such as shadows, empty walls, or between pleats of fabric.

From the outset it was Alberti's intention that his *velo*, a perspectival tool comprised of a gridded net-work of threads reticulated inside an empty frame, transcend its materiality to reach the level of internalization in its users. This would assist in the development of an intuitive sense of proportion and perspective – as a tool to alter the individual's perception of the world and therefore change the way it was represented. Similarly, theorists of the printed image have commented on its ability to materialize perceptual processes, to transmit information through the process of impression. By examining Alberti's *velo* alongside the theme of the Veil of Veronica as it appears in the printed image, my thesis will consider the notion of reproducibility as it relates to both the iterability of the homogenizing system of linear perspective as well as the replication and dissemination of printed images in order to point to the pervasive power of the grid as a form which infiltrates the image in early modern Western Europe and acts as a structural paradigm of modernity.

Lay Summary

Among the forms that surround us and shape our everyday experiences, the grid form is one of the most common. This thesis questions the appearance of the grid at a certain moment in history, the emergence of crosshatching in early modern European printed images as they are seen in representations of the Christian theme of the Veil of Veronica. This approach is intended to reveal a set of interrelated material and conceptual practices that revolve around the grid form and emerge more or less simultaneously alongside the initial development of printing images in Western Europe from the beginnings of the fifteenth century to the middle of the sixteenth century.

Preface

This thesis is original, unpublished, independent work by the author, Lucas Kling.

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Dedication

This, and everything, for Jonathan.

Chapter 1: Introduction

In 1917 British sculptor, designer, and printmaker Eric Gill completed his wood-engraving titled *The Holy Face* (Fig.1), a modern interpretation of the Veil of Veronica theme popular in Christian devotional imagery from the early fifteenth century. The print was one among a series of woodcuts Gill created to depict the Stations of the Cross, based on similar stone carvings he had been commissioned to complete for the interior pillars of the recently consecrated Westminster Cathedral.¹ In *The Holy Face* Gill depicts the face of Christ in a state of calm by using boldly cut lines and a stark contrast in colouration. With his eyes closed and mouth relaxed, Christ's face appears to meld into the background in a way which renders the boundaries of the face indistinguishable from the veil onto which it is impressed. The same lines used to depict facial hair and skin transition into those which illustrate the ripples of the fabric. Gill lends his image dimension and depth by highlighting the forehead, nose, and chin, while flanking the face on either side with folding fabric which appears to recede into the background – an illusion assisted by depicting a rectangular frame which surrounds the veil and from which it is hung in two places. The uppermost right corner of the veil breaks the boundary of the frame, a subtle and clever visual trick employed by Gill to assist in achieving this perspectival depth. The visual characteristics of this image identify the print as a woodcut, and yet, Gill's choice to use the medium of the woodblock print together with the Christian theme of the Veil of Veronica seems anachronistic for 1917.

¹ Malcolm Yorke, *Eric Gill: Man of Flesh and Spirit* (New York: Universe Books, 1981), 179.

In western Europe the first decades of the twentieth century witnessed a renewed interest in woodblock printing. While originating in east Asia nearly a millennium beforehand, printing images from designs cut into wooden blocks became a popular mode of representation in Europe from the beginnings of the fifteenth century. Although the woodblock print is the earliest means by which an image could be replicated, over time subsequent developments in printmaking technologies introduced new techniques that gained in popularity and often, though not always, displaced woodcuts as the preferred means of image replication. This resurgent interest in woodblock printing occurs most notably in the work of the German Expressionists, whose adoption of the centuries-old medium connected them to the strong tradition of woodblock printing in Germany.² However, the Expressionists distinguished their woodcut work from this history by adopting secularized subject matter that addressed their contemporary concerns, such as life under conditions engendered by accelerating modernization and rapid urban consolidation, as well as by distancing themselves from the predominantly Christian and illustrative uses of the medium typical of previous generations of woodblock prints.

While Gill was working contemporaneously to the Expressionists, albeit in a British context, his use of the medium to depict Christian subject matter should be seen as a refusal of using the woodcut for modernist means and instead as a faithful return to the fifteenth century emergence of woodblock printing in Europe and its old prominence as a means to disseminate primarily religious imagery. His recent conversion to Roman Catholicism, which took place only four years prior to the completion of *The Holy Face*, may also account for this predilection.³

² Ibid., 162.

³ Ibid., 202.

Furthermore, Gill's choice to include a Veil of Veronica print in his woodcut series on the Stations of the Cross, despite its absence from the Westminster Cathedral carvings, demonstrates his awareness of the importance and self-referentiality of the Veil theme for the history and medium of the printed image.

Alongside the Expressionists many other modern artists were experimenting with newfound visual vocabularies. In some cases, these artists were utilizing existing forms by configuring them into new compositions. In her formative essay titled "Grids," art historian Rosalind Krauss makes a case for the importance of understanding the particular form of the grid as it appears in these modernist art practices from the beginnings of the twentieth century onward. Krauss locates the initial appearance of the grid within the work of art in pre-War cubist painting, and she continues her exploration of the form by citing other painted works from artists like Piet Mondrian, Jasper Johns, and Agnes Martin. Among the significant qualities the visualized grid produces she writes that it consistently reaffirms certain modernist ambitions, "modern art's will to silence, its hostility to literature, to narrative, to discourse."⁴ Ultimately, she argues that no form has sustained itself so relentlessly while being so impervious to change. And while there can be little doubt that appearances of the grid within modern art increase alongside the temporal progression of modernity, there is a central claim Krauss makes with which I disagree.

Krauss chooses to isolate the appearance of the form of the grid in the work of art specifically within the boundaries of the twentieth century, and in explicit terms argues that it appears nowhere in the art of the last century, and by extension the centuries prior to that one.⁵

⁴ Rosalind Krauss, "Grids," *October*, vol. 9 (Summer, 1979): 60.

⁵ *Ibid.*, 61.

While she concedes that indeed the grid can be observed in fifteenth and sixteenth century treatises on perspective, this does not satisfy her definition of the grid in art because, as she argues, “Perspective was, after all, the science of the real, not the mode of withdrawal from it.”⁶ In other words, these perspectival treatises were explications of the system of linear or one-point perspective and therefore have more to do with the history of optics rather than the history of art.

However, perspectival issues aside and regardless of whether or not one agrees with Krauss’ statement, I have identified the presence of the grid form in artwork contemporary to these early modern treatises, although they are grids which are somewhat different in nature. In this thesis I will argue for the early modern European printed image as a site where the appearance of the grid form can be observed in the use of crosshatching – a technique used to illustrate depth, dimension, and darkness within a purely linear medium limited to the use of a single colour, that of black ink. Crosshatching can be observed in printed images from both the techniques of woodblock printing as well as the intaglio print process of engraving. This study will use examples of each printmaking technique in order to attend to the inherent similarities between the two, both of which employ crosshatching and are the earliest means from which images could be replicated.

From the moment printed images began to be produced in early modern Europe they have displayed the use of hatching, repeated parallel lines, to create tone and shading which lends dimension to the resulting printed image. As is the case in the creation of the grid form, when hatching is taken and overlain with another network of parallel lines in a perpendicular fashion this is referred to as crosshatching. Crosshatching is apparent in most printed images from this

⁶ Ibid., 52.

time period, though there is certainly development in the use of this technique. The earliest prints often only display minimal and marginal crosshatching, as opposed to later ones which sometimes display an overwhelming use of the technique to achieve certain means. Similarly to hatching, the density of lines permitted by crosshatching allows for areas of darker pigmentation on the resulting image. It is possible to achieve this result because each carved or engraved line supports or holds the ink which will then be transferred to the paper ground. The higher the concentration of lines, the more ink, the darker the resulting image.

Of the many early prints which offer an image of the crosshatched grid, this study will focus on representations of the veil, or sudarium, of Saint Veronica. This is for three reasons: one, to offer an avenue into and focus within the capacious category of ‘printed images,’ two, to see the Veil of Veronica as a self-referential statement on the importance and power of printmakers and their trade, and three, as a popular theme in early printed images from the Christian visual tradition that complicates the grid form beyond simply the presence of crosshatching by introducing the question of ‘veiling’ alongside that of the grid. Furthermore, these printed images of the veil visualize the gridded warp and weft structure of the fabric upon which Christ’s face is represented through this technique of crosshatching, which also questions the material support upon which the image is printed by calling attention to the importance of rag paper in the emergence and proliferation of printed images from the mid-fifteenth century to the mid-sixteenth century in Western Europe.⁷

⁷ While this study focuses on printed images produced in Western Europe it is important to remember that these producers were often incredibly influenced by ideas from elsewhere and that their resulting prints were not restricted to the boundaries of such a place and circulated outside it, nor that this was necessarily the way early modern Europeans considered themselves

This study is also motivated by a guiding question posed by German media theorist Bernhard Siegert in his writing on cultural techniques. In his latest book, *Cultural Techniques: Grids, Filters, Doors, and Other Articulations of the Real*, Siegert dedicates a chapter to examining the grid form where he asks, “Can the expansion of Western culture from the sixteenth to the twentieth century be described in terms of a growing totalitarianism of the grid?”⁸ He defines the grid as a cultural technique, not only because of its capability to allow for the conceptualization of both place and being-in-one’s-place, but also because of the grid’s general tendency toward order, how it effectively merges representation and operation, and the ways in which it bears on the interactions between imaging technologies and mathematical, topographical, geographical, and governmental knowledge.⁹ And while Siegert does briefly mention veiling and the printed image within this chapter, although somewhat separately, he chooses to focus his analysis on the cartographic or topographic grid instead.¹⁰ This is likely due to his interest in the fundamental question cited above which is concerned with notions of territorial expansion and colonization. I suggest that in an effort to best address this question the importance of the printed image becomes even more significant due to the medium’s inherent capability to distribute information across vast distances while providing viewers with a unique visual experience. In other words, an examination of the power of the grid form in the processes of increasing expansion and growing totalitarianism is incomplete without a sufficient analysis of the printed image, which visualizes

(ie. as Eastern, Central, or Western Europeans). Instead, alongside existing practices in early modern scholarship, I use this term to refer to a general geographic area.

⁸ Bernhard Siegert, *Cultural Techniques: Grids, Filters, Doors, and Other Articulations of the Real*, trans. Geoffrey Winthrop-Young (New York: Fordham University Press, 2015), 98.

⁹ Ibid.

¹⁰ Ibid., 99.

the grid in the presence of crosshatching and facilitates previously unprecedented production, due to the relative speed of replication, and previously unprecedented dissemination, due to the ease in which paper impressions can travel, as well as the relative affordability of such images, which made it possible for new social classes to own and intimately experience images.

In order to attend to this central question I will also turn to Caroline Levine and her recent work on the development of a new formalist method which seeks to connect form with political, social, and historical context. On this account Levine writes, “paying attention to subtle and complex formal patterns allows us to rethink the historical workings of political power and the relations between politics and aesthetics.”¹¹ Throughout the humanities the relationship between form and context has often been seen as a problematic one; the two are conventionally positioned as mutually incompatible and with attempts to reconcile them offering tentative or unsatisfactory results. However, in my alignment with Levine, I believe it is precisely this tension between form and context that makes it possible not only to identify certain forms and the power inherent to them, as in the case of the grid, but that this approach also yields further questions and varied, thorough answers that neither approach could do individually. Although Levine grounds her work in literary analysis, I have attempted to apply her ideas in an art historical context in ways which demonstrate the applicability and adaptability of her formalist method to other disciplines besides literary studies. With this in mind, what this thesis attempts to do is to reveal the power of the grid form at a certain moment in its history, the introduction of the printed image to early modern Europe, in an effort to demonstrate that the grid exists not only as a form embedded

¹¹ Caroline Levine, *Forms: Whole, Rhythm, Hierarchy, Network* (Princeton: Princeton University Press, 2015), xiii.

within certain material practices but also as one within which human thought and experience has been entrenched. I hope that by drawing attention to the grid form – how it operates and how it organizes – we can become increasingly aware of how grids shape and structure our experience of the world, thereby transforming passive receivers of forms into conscious manipulators of them.

Chapter 2: What is a Grid?

“By virtue of the grid, the given work of art is presented as a mere fragment, a tiny piece arbitrarily cropped from an infinitely larger fabric. Thus the grid operates from the work of art outward, compelling our acknowledgement of a world beyond the frame.”¹²
- Rosalind Krauss, “Grids”

Among the forms that permeate human existence, those that structure and organize experience, the grid is perhaps one of the most pervasive. With an unparalleled ability to break down information, surfaces, and spaces into individually discrete and discernible modular components, the grid lends the human agent the capability to understand singular parts and how they relate to the whole. Today the grid has a diverse range of applications and can be observed in places as distinct as architectural design and construction, computer and television screen pixelation, bitmapped images, electronic spreadsheet programs, galvanized metal or plastic utility fencing, and the layouts of warehouse distribution centers, to name a few. Even the system of binary code – the foundation upon which most computing and digital communication is made possible – takes the form of the grid in its use of ones and zeroes, presence and absence, lines and the interstices between those lines. In fact, the grid form is so ubiquitous that it somehow masks or normalizes its omnipresence, users often unaware or unconscious of the different ways in which the grid infiltrates their experience of the external world, and therefore how it informs internal subjective experience. Somehow the grid seems to be at once everywhere and

¹² Krauss, “Grids,” 60.

inconspicuous at the same time, which makes the following question sound strange but nonetheless necessary for continuing with the remainder of this thesis: what is a grid?

A grid can be described as a network of repeated parallel lines against a series of lines that run perpendicular to them. This series of lines can achieve the form of the grid in as little as two vertical lines superimposed with two horizontal lines, creating one of the most pervasive forms of the twenty-first century, the hashtag – also known as the pound sign, the number sign, or the octothorpe.¹³ Oftentimes grids involve a higher number of these lines however, such as in the graph paper commonly used in mathematics and engineering, and they can hold the potential for infinite expansion due to the simple and repetitive nature of the form itself, as in the case of the Microsoft Excel spreadsheet for example. These lines therefore create modular and rectilinear interstices which normally appear in the shape of squares or rectangles. When grids overlap at certain angles they can create interstices which resemble a diamond or lozenge shape, characteristic of most chain-link fencing. When this pattern is created it is referred to as a *moiré*, taken from the French etymology of the word which describes it as silk subjected to heat and pressed between rollers, which gives it a rippled or watered appearance.¹⁴

In some cases the positive and negative components within a grid can be reversed, but in a way which still qualifies the arrangement as a grid. For instance, envision a generic classroom

¹³ While the etymology of the word ‘octothorpe’ is debated, note that the word makes use of the prefix ‘octo-’ or ‘having eight,’ which corresponds to the eight points of the sign itself, and ‘thorpe,’ which may be derived from the Old English ‘thorp’ meaning a small village or hamlet. As the octothorpe takes the form of a grid in its smallest size together with what it means to be or to live ‘on the grid’ suggests an interesting connection, especially given the pervasiveness of the hashtag and how it operates within the ‘global village’ as a tool to connect users.

¹⁴ “moiré, n.2 and adj.1”. OED Online. May 2018. Oxford University Press.
<http://www.oed.com.ezproxy.library.ubc.ca/view/Entry/120771?rskey=oMM37N&result=2&isAdvanced=false> (accessed May 15, 2018).

composition with standard rectangular desks arranged individually in rows and columns, separated by aisles. The lines that structure this individual grid are not made manifest by a visible mark, rather the opposite is the case, it is the space that exists within and between the grouping of desks that qualifies this arrangement as a grid. In cases like this the usual roles are reversed. The desks, which would normally be seen as the spaces between the lines, like the cells in a spreadsheet, instead stand in for the duty the line normally fulfills and occupies the positive space. The space that surrounds and permeates the arrangement of desks then accounts for the negative space within the grid, as it takes the role of the line, even though in this case it is the immaterial aspect of this formation. Next, imagine the same classroom but instead with all of the desks gathered together to form a single large square or rectangle. This arrangement still takes the form of the grid, despite the absence of space between these desks, and the lines which divide are made by the edges of these desks against one another. This seems to demonstrate that the distance between the desks, the nodes within this network, is not a defining feature of the grid, rather it is the rectilinearity of the arrangement and the necessary relationship between lines and the modular spaces between those lines that qualifies it as a grid.

These are a mere few individual examples of arrangements which can be defined as grids, and surely many alternative examples of where grids can be recognized in daily life could be elaborated. Despite this myriad of present-day applications, and the implicit assumption that the grid is a by-product of modernity, the grid seems to have a history as equally long as the history of humankind. It is within this history that one finds precedent for contemporary iterations of the grid form. In her study on this history, *The Grid Book*, art historian Hannah Higgins locates the appearance of the grid as early as 9,000 BCE, alongside the development of the initial

agricultural settlements in what today is referred to as the Middle East.¹⁵ Alongside the domestication of livestock and the cultivation of crops, the first agrarian river valley societies also produced mud bricks which allowed for the production of a built environment that cemented their relationship with a certain place, rooting them to their surroundings and distancing them from a nomadic way of life. These mud bricks were handmade and used to create walls which resemble a modern conception of the grid form. Eventually, around 6,000 BCE, wooden molds began to be used which standardized the size and shape of these bricks.¹⁶ As a result of this technological innovation the bricks required less time and labour to produce, thereby allowing an increase in production and a more standardized and easily stackable brick.

Higgins then isolates certain moments over the next five thousand years of human history, titling each chapter after a unique instance in which the form of the grid can be identified in a certain object or arrangement: tablet, gridiron, map, notation, ledger, screen, type, box, and network.¹⁷ Without doubt many others could be added to this list. Among them I would include the art of weaving, one of the most ancient textile practices that relies on warp and weft, a system of threads crossing one another at right angles.¹⁸ In fact, textiles and printed images in early modern Europe may be considered together by the common history they share when it comes to the initial production of paper. The remainder of this chapter will involve a consideration of the grid form as it appears within a constellation of interrelated materials and practices that emerge

¹⁵ Hannah B. Higgins, *The Grid Book* (Cambridge: MIT Press, 2009), 15.

¹⁶ *Ibid.*, 17.

¹⁷ *Ibid.*, TOC.

¹⁸ Syniva Whitney, "The Grid, Weaving, Body and Mind," *Textile Society of American Symposium Proceedings* 60 (2010): 1.

alongside one another from the beginnings of the fourteenth century to the end of the fifteenth century.

The relationship between textiles and printing did not begin with the initial production of paper in southern and western Europe in the fourteenth century, but instead began centuries earlier with the practice of stamping designs carved from wooden blocks onto textiles by hand in a method not dissimilar from the way woodblock prints would be produced once paper became more readily available.¹⁹ When it comes to the earliest examples of images printed on paper, the medium itself could be described along the lines of what defines a craft practice. As is the case throughout the history of art, whenever a ‘new’ medium comes into use at a given moment in time it is always a composite, a hybridization of multiple modes of representation that preceded it.

Such is the case for the medium of engraving for example, which relies on the previously established image-making practices of woodblock printing and niello work in particular. Niello, a practice which dates to the ancient world, involves the incision of decorative designs or figurative work upon metal surfaces, often body armour or weaponry.²⁰ These designs would then be filled with a black substance called *nigellum* which resulted in a dark pigmentation that highlighted the incised lines and allowed for a perceptible image.²¹ The use of this technique was widespread, and can be observed in varying degrees of use throughout the following centuries. As this was a practice in metalworking, many of the different facets of such a technique can be

¹⁹ Anthony Griffiths, *The Print Before Photography: An Introduction to European Printmaking 1550-1820* (London: British Museum Press, 2016), 15.

²⁰ Jay A. Levenson, et al., *Early Italian Engravings from the National Gallery of Art* (Washington: National Gallery of Art, 1973), xvi-xvii.

²¹ Ibid.

observed in goldsmithing for example, a practice and profession of vital importance to the emergence of engraved images. For instance, the burin, a pointed metal tool designed to be held in the user's hand a certain way and used to incise lines or make marks on metal, was a tool first used for the niello technique as well as for goldsmithing, and which later becomes one of the most important tools within the engraver's repertoire.

Engraving is also similarly indebted to the history of the woodblock print, which emerged in Europe with some certainty roughly fifty years prior to that of engraving. Although alike in many ways, the mediums of woodblock and engraved images differ on one fundamental level: woodblock printing involves the removal of material from the wood block where the design is being carved, a relief process resulting which in lay terms might be described as a large stamp, while engraving is distinct in its use of what is defined as an intaglio print process. This requires the incision of lines and the removal of some of the surface material, in this case metal, often copper, and the application of an ink wash to the surface which is then pressed inside the grooves carved out by the maker. In the case of woodblock printing images can be made by hand, as the printer takes the block, applies the ink often with a roller, and then presses the paper to the block. Printing engraved images involves a more complex process, and requires the necessary addition of a specific kind of roller press. In this case the copper plate, once filled with ink, is positioned underneath a blank sheet of paper, then sandwiched between two boards and pressed through rotating cylinders. The ink held inside the incised grooves is pushed onto and into the paper support by the extreme pressure exerted by the roller-press apparatus. This process often resulted in finer lines than could be achieved in woodblock printing, which has often been thought of as a cruder medium as a result.

This hybridization between existing practices in image-making and print media may be taken even further when considering the beginnings of paper production in Europe. While woodblock printing onto textiles was already an established practice in late medieval and early modern Europe, once paper was able to be produced the popularity of printmaking began to accelerate rapidly. However, in order for paper to be made this required the transformation of certain textiles into new compositions. The first step in this process involved the acquisition of suitable linen or hemp rags, which lends these early examples of paper the designation of ‘rag paper.’ In some paper-making centers across Europe, places like Fabriano and Nuremburg, laws existed which prevented the disposal of white rags by any means other than by giving them to paper makers.²² When suitable rags were gathered, the gridded warp and weft system of threads was broken down by pulverizing the cloth in water with large wooden hammers.²³ The resulting pulp was laid into rectangular molds which contained a grid of metal wires which ran both vertically and horizontally, lending early modern paper another name, that being ‘laid paper.’²⁴ The use of these molds resulted in a textured paper that physically resembled the grid-like structure of the fabric from which it was created.

What I find most compelling about this history, for the interests being developed within this thesis, is the physical presence of the grid form within each step in papermaking, which led toward the eventual impression of crosshatching onto the paper support. In fact, given the

²² Evelyn Lincoln, “The Engraved Line and the Viewer’s Imagination,” in *The Brilliant Line: Following the Early Modern Engraver 1480-1650*, ed. Emily J. Peters (Providence: Museum of Art, Rhode Island School of Design, 2009), 107.

²³ Alison G. Stewart, “The Birth of Mass Media: Printmaking in Early Modern Europe,” in *A Companion to Renaissance and Baroque Art*, eds. Babette Bohn and James M. Saslow (Chichester: John Wiley & Sons, 2013), 265.

²⁴ Ibid.

materials involved, there seemed to be little difference between woodblock printing onto textiles and printing onto paper. While printmakers did not often produce their own paper, it is likely that they were aware of the processes involved in the creation of something that was absolutely essential to the continuation of their trade. This leads me to suggest that one reason early printmakers may have picked up the theme of the Veil of Veronica with such enthusiasm was precisely to acknowledge the necessity of textiles as the foundation upon which their work was created, and as a self-referential gesture which not only demonstrated the knowledge they possessed over their own craft but which also served to legitimize their profession by borrowing from an important Christian theme. This idea, that a humble linen veil was actually embedded in the paper upon which they were printing their versions of the Veil of Veronica, may not have been lost upon viewers of such images either.

By the 1430s acquiring paper was rarely a problem.²⁵ This directly correlated to a substantial increase in the production of printed images. Interestingly, it is at the same moment in time that other iterations of the grid form were being developed that directly affected the way images would be conceptualized and created. In this regard I am referring to the system of linear or one-point perspective, which like the carved or engraved image operationalizes the grid form in order to aid the user in circumscription by achieving the illusion of three-dimensional depth on a two-dimensional plane. Linear perspective is also a visual system which originates from within the same geography discussed here, and one which also contributes to Siegert's examination of the grid form in western culture.

²⁵ Ad Stijnman, *Engraving and Etching 1400-2000: A History of the Development of Manual Intaglio Printmaking Processes* (Houten: Archetype Publications, 2012), 35.

One way such a visual effect could be achieved was by using a perspectival tool, or some variant of it, originally described in 1435 by Italian polymath Leon Battista Alberti in his treatise titled '*Della Pittura*,' or, '*On Painting*.' Significantly, within this treatise Alberti refers to this apparatus as the *velo*, the Italian word for 'veil,' which he designed as a device to aid the artist. His description of the *velo* reads like this: "I believe nothing more convenient can be found than the veil, which among my friends I call the intersection, and whose usage I was the first to discover. It is like this: a veil loosely woven of fine thread, dyed whatever colour you please, divided up by thicker threads into as many parallel square sections as you like, and stretched on a frame. I set this up between the eye and the object to be represented, so that the visual pyramid passes through the loose weave of the veil."²⁶

Like the crosshatching found within the printed image, this translucent network of thread also takes the form of the grid. As a tool, Alberti's *velo* was designed to offer the artist a simplified means of creating images that adhered to the newly emerging system of linear perspective. This innovative system was designed to translate the three-dimensional visual world onto a two-dimensional surface by using techniques which resulted in a standardized image. It is a practice that was positioned in opposition to the heterogeneity of images that preceded it and in light of the apparent lack of an existing unifying perspectival system – a departure from the relatively flat visual field of a medieval world filled with symbols. On one hand this visual system came to be associated with divine grace, as a way of accessing a kind of infinite and homogenous space where God's omnipresence is made visible – the search for a kind of 'truth' within the laws of

²⁶ Leon Battista Alberti, *On Painting and On Sculpture*, ed., trans. Cecil Grayson (London: Phaidon, 1972), 67-69.

optics and geometry that could access God's design for the universe and therefore bring the viewer closer to Him. While on the other hand linear perspective was born out of Renaissance humanism that grew from a renewed interest in classical texts from antiquity and which suggested the primacy of the individualized subject and their experience of the world.

It is in the latter of these two opposing features of linear perspective that we find Alberti's *velo*. As opposed to the earlier perspectival experiments undertaken by the artisan-turned-architect Filippo Brunelleschi, Alberti's *velo* introduced as a more secularized alternative. Brunelleschi's perspectival device operated with the use of a mirror-like mechanism and light, along with its divine associations, which sought to reflect the world as it was arranged by God. Conversely, Alberti's *velo* opposed this approach by opening onto actual nature, without being a mere reflection. In this way, linear perspective seems to position the viewer as capable of rationally comprehending the world according to a set of laws instituted by human agents. But to simply use Alberti's *velo* as a tool was not enough. Instead, it was Alberti's intention that his *velo* transcend its materiality in order to become internalized within the user's mind. Along with this internalization came the ability to impose an immaterial grid as an intersection between the viewing self and the visual world in hopes of developing an intuitive sense of proportion.

Interestingly, it is precisely this development of linear perspective that introduces three-dimensionality and depth to the printed image through the presence of crosshatching. The crosshatched grid is used as a technique within the printed image to give the illusion of depth by illustrating shadows. However, it is often only the medium of painting which is spoken about in scholarship surrounding the presence of the grid in linear perspective – nowhere in the studies that I have examined have I encountered an existing association of crosshatching with the form of the grid. In the case of Alberti's *velo*, the grid affords the organization of visual space into

modular components where the information contained within these discrete units are interrelated to ensure pictorial unity. Likewise, in the case of the printed image, the crosshatched grid serves to define space by increasing or decreasing the concentration of lines to darken or lighten certain areas of the image as necessary to achieve an illusionistic representation and guarantee uniform treatment across the different things rendered within the frame.

Albrecht Dürer, one of the most influential early modern European artists, demonstrates how Alberti's *velo* would have operated in one of the woodcuts from his theoretical treatise on perspective titled, "Instructions for Measuring" (Fig.2). In this image the artist stands before the seated subject, separated by a table-like apparatus which supports a vertical frame. This square frame would have held within it both a gridded network of thread for the purposes of measuring as well as a drawing surface upon which the artist could make marks which would later guide the linework of their drawing, more clearly evident in another woodcut from the same treatise where an artist is preparing to draw a reclining nude female subject (Fig.3).²⁷ While the arrangement in the foreground of the first example is the intended focus of the image, Dürer unifies the disparate parts of the room through his use of crosshatching which lends the image depth and dimension. This is most evident in the spaces of the room that are intended to be perceived as the darkest ones, the space underneath the canopy of the bed and against the far wall.

²⁷ While not the focus of this thesis, the gendered nature of the Veil of Veronica theme together with Alberti's gendered use of the *velo* begs further inquiry. In both instances of veils, garments intended for female wearers have had their subjects displaced or altogether disappeared. While Veronica's veil was removed for the impression of a male subject's face, removing Veronica herself from the image and its implications, Dürer maintains the female subject behind the veil, yet in a way which objectifies her because of how Alberti's *velo* was intended to operate, treating anything and everything beyond the *velo* in the same manner.

I argue that what these examples of the grid form do, in line with Krauss, is compel our acknowledgement of the world outside this frame, but in ways which structure our experience of the world according to the same grid logic. While the crosshatched grid may appear as just another of the many instances of grid forms discussed so far, where it differs is in the visual experience it provides as a result of its presence within the print medium. In what follows the importance and uniqueness of the print medium will be discussed in regard to what it affords the grid form.

Chapter 3: Printing Veils, Facing Grids: The Experience of the Printed Image

Within the existing scholarship on the printed image sufficient time has already been spent attempting to locate the precise geographic and temporal origins of the medium. Regardless of the lack of evidence which would help to determine the specificities of these beginnings, debates have been ongoing even since the writings of Renaissance intellectual Giorgio Vasari – the first individual to comment on this history. In the second edition to his *Lives*, published in 1550, Vasari argued it was the Florentine goldsmith Maso Finiguerra who developed the engraving technique sometime around 1460.²⁸ Though, even the advisor to the revised publication, Vincenzo Borghini, encouraged Vasari to expand his description of engraving both on a geographic as well as chronological level to account for such insufficiencies and simplified claims.²⁹ Since then many others have examined and re-examined this moment of origin and initial experimentation in the practice of engraving to provide alternative possibilities. Nonetheless the general consensus within the field seems to suggest the emergence of engraving occurred along the Rhine river during the early to mid-fifteenth century.³⁰ Similarly, while there is consensus that the introduction of woodblock printing to Europe came from Asia, debates which attempt to trace lineages of styles and influences according to individuals and geographies continues.

²⁸ Sharon Gregory, *Vasari and the Renaissance Print* (Surrey: Ashgate, 2012), 8.

²⁹ *Ibid.*, 9.

³⁰ Jay A. Levenson, et al., *Early Italian Engravings from the National Gallery of Art* (Washington: National Gallery of Art, 1973), xv.

Such origin stories attempt to seek answers by imposing different conceptual boundaries in which such a complex and uncertain history can be made perceptible by containing it within identifiable moments in both time and place. Even if these accounts are convincing in their claims, they nonetheless present and perpetuate the notion that inventions or innovations in artistic practice emerge in specific places at particular times under the intervention of certain individuals. This method is resisted by the history of the printed image. Whereas an apparent lack of specific information, material or historical, is often cited as the determining factor in the inability to write such precise origin stories, I would suggest an alternative answer – perhaps no such unique and individual origins exist. Instead, it may be the case that these printing techniques emerged more-or-less simultaneously in different centers across western Europe, either without concerted exterior influence or as a result of networks of exchange and interaction where mutual and concurrent developments in the medium took place. It may be the case that certain conditions within this large geography – social, political, or aesthetic – gave rise to an early modern European cognitive apparatus that welcomed the printed image and with it, for the interests of this thesis, a newfound visual representation of the form of grid in the technique of crosshatching.

In the past the discourse surrounding the beginnings of these histories preference an examination of the link between what is often referred to as ‘the north’ and ‘the south,’ meaning both Germany and Italy and the bidirectional relationship normally imposed upon these geographies. The shortcomings of this method lie in the setting up of a false dichotomy. This approach first creates and continually reaffirms the importance of certain geographies, and indeed certain individuals, over others, and maintains an emphasis on attempting to identify examples of ingenious artistic invention through the perpetuation of difference rather than

through searching for commonalities and patterns of repetition throughout the use of the mediums as a whole. This often results in the exploration of other, necessarily more ‘minor,’ histories positioned against the hegemony of such a narrative and which seeks to justify or warrant the inclusion or incorporation of these histories into the same structure rather than envision a distinct alternative.

Instead, what I intend to do in this study is to think of both woodblock printing and engraving as artistic practices which resulted from the synthesis of different mediums which preceded them and as a result of multidirectional exchange within a network of different actors and places.³¹ The risk with employing such an approach lies in its potential to fall into complete homogenization in neglecting certain meaningful particularities. In an effort to avoid such generalizations, rather than characterizing or thinking about prints in a manner corresponding to differences in their formal appearances due to medium specificity and geographic distinction, I have instead isolated the grid form which appears in the presence of crosshatching and therefore one which applies to many early printed images in a way that does not seek to preference any person or place over another. This approach seeks to understand Europe as a site of production for these images while containing the study inside a chronology where the mediums can be defined as within their early years of experimentation, that being 1450 – 1550.

³¹ A similar approach has been taken in another recent study on the engraved image, where the editor notes in the preface that a fluid geography of early modern engraving will be emphasized over a regional approach in an attempt to observe connections among practitioners and the effects on knowledge they shared, how successful systems of engraving worked, and in order to identify novel approaches to the medium. See Emily J. Peters, ed., *The Brilliant Line: Following the Early Modern Engraver 1480-1650* (Providence: Museum of Art, Rhode Island School of Design, 2009), 9.

This approach is aided by the methodology set out by Caroline Levine, who encourages the study of forms through the question of affordances.³² In order to use this method, Levine suggests that when considering a specific form, ask what it is that specific form affords, or in other words, what it allows for. For instance, the form of the printed image affords many things all vital to the central concerns of this thesis. I will outline three of these crucial affordances as I see them, however, by doing this I do not wish to suggest that these are the only three affordances the printed image gives rise to, for there are likely many others that could be identified. Rather, these are the three I believe to be most significant in light of the present study. In fact, this seems to be both one of the opportunities as well as one of the challenges presented by utilizing Levine's formalist methodology. Interrogating form through the question of affordances enables one to identify many perceptible, even latent, iterations and applications of a specific form. Though at the same time such an approach can seem overly capacious, with the ability to attribute a great many affordances to a single form.

First, printed images afford movement. Whereas prior to the inception of the printed image in Europe visual representation was predominantly confined to sculpture and painting, and their places within certain architectural settings. These are mediums that both, in comparison to the printed image, afford a certain stability or rootedness in place. As an early modern European viewer, oftentimes this would require travelling a distance to a certain place to experience the work of art. Examples might include visiting a local place of worship to see a painted or carved triptych altarpiece, often only opened or made available for important holy days, or perhaps by travelling greater distances to experience sculptures or relief decoration a certain structure was

³² Levine, *Forms*, 6.

well-known for, often by means of religious pilgrimage. In these cases it is the body that moves through space to seek the visual experience, while in the case of the print it is the image that moves instead and seeks out the viewer. This mobility affords the experience of the image in a newfound variety of places. It also affords increased ease in which visual information can be transmitted across great distances, and because such information may be presented without the intervention of language in the form of text, printed images convey their messages in a relatively universal fashion to be decoded and perceived more quickly and easily without literary translation. This aspect of the printed image is an argument in favour of its power as a means of communication over that of the printed word.³³

According to Levine's methodology this first affordance of the printed image satisfies a fundamental quality which all forms must fulfill, that of portability. She suggests that there are two ways forms move, by enduring across time and space and through their existence within aesthetic and social materials.³⁴ When the capacity the printed image has for ease of movement across space meets the temporal durability intrinsic to the grid form, and it's always-existing presence within human culture as elaborated by Higgins, a potent combination of affordances permits the crosshatched grid a unique place in an examination of the early modern visual experience. This is further emphasized by Levine's insistence on the relationship between form and materiality, which she argues are inextricable.³⁵ In other words, in this case the form of the grid requires the material qualities of the printed image in order to be disseminated and as a

³³ Anthony Griffiths, *The Print Before Photography: An Introduction to European Printmaking 1550-1820* (London: British Museum Press, 2016), 24.

³⁴ Levine, 4-5.

³⁵ *Ibid.*, 9.

result to determine further material iterations of the grid form, or what Siegert might describe as fulfilling its totalizing power.

Second, against any form of visual representation that preceded it, the medium of print affords rapid replication. In the case of engraving, while the copperplate upon which the design was incised could take the engraver anywhere from several weeks to several months to complete, once the plate was finalized multiple impressions could be made, distributed, and sold daily. Because this process required the heaviest investment of time at the outset, one plate from which many copies could be made, it stands in opposition to painting for example, which would require similar amounts of time to produce copies as it did the original. This affordance results in a variety of things. Among them, because of the speed in which the engravings were produced they could respond more quickly to events or concerns in contemporary life, reflecting and refracting an image of certain early modern societal realities – subject matter often deemed inappropriate for other practices such as painting. Also, the material components of the print were generally more affordable than those of other mediums. This, taken with the rapid replication, allowed for the generation of a producer surplus made for an available consumer market; and because printed images were more inexpensive to purchase than other kinds of visual representations, such as illuminated manuscripts, they were able to reach wider audiences comprised of buyers from different socioeconomic backgrounds.

Third, and following from these two previous affordances, prints afford a personal and intimate experience with images. Whereas previously such experiences were limited to those individuals in the highest economic tier, printed images largely, but not entirely, opened the opportunity to own an image. Prior to this moment experiences with visual representations were often communal or congregational, as was mentioned above in relation to the increased

movement printed images afforded. Oftentimes this meant beholding a painting as part of a crowd within a church or court setting for example. Printed images increased the opportunity for buyers to develop private collections of another kind, and furthermore, provided the possibility to closely study or consider such images according to the privileges permitted by individual ownership.

Nevertheless, this third affordance, the intimate experience that printed images allow for, occupies a place of central importance when evaluating the power of the grid form. This is especially the case when considered together with the first affordance of the printed image, ease of movement. During these initial years of experimentation printmakers from throughout Europe and beyond learned of different techniques by receiving examples of printed images from elsewhere. Print historian Evelyn Lincoln emphasizes this point when she writes, “A logical but often overlooked fact is that one of the primary audiences for engraving was engravers, for whom the form of the engraved line was a type of knowledge to be studied, imitated, and sometimes rejected.”³⁶

Many printmakers often copied painted, and even sculpted works of well-known artists. This demonstrates that their work extended beyond the interest of solely other printmakers and that it would have been desired by artists who worked in other mediums to either see and learn from examples of famous works of art or to interpret the different styles and techniques being used in other regions. These printmakers received printed images from distant places with a keen interest and attempted to decode the different systems of mark-making in order to apply them to their own practices. This included interpreting how other printmakers were using stippling, varying

³⁶ Lincoln, 107.

pressure in line application and undulation, and of course how they were using different kinds of hatching, including crosshatching. This close, careful, and prolonged attention paid to examining such techniques encouraged printmakers to learn how to instrumentalize the grid form through practices in crosshatching in order to create different tones as well as depth and shadow in their work, and the increasing exposure of these printed images to other artists would have encouraged them to think about such forms similarly, consciously or otherwise.

However, artists were not the only ones who enacted such scrupulousness upon printed images. The intimate, hand-held, experience of printed images also encouraged the close attention of collector-connoisseurs and pious devotees alike. As noted by Lincoln, “Renaissance viewers tended to look long and carefully at their prints.”³⁷ As an example to demonstrate this assertion Lincoln cites an account from the late-sixteenth century regarding the proposed sale of a large collection of valuable engravings belonging to the former Mantuan cardinal Scipione Gonzaga.³⁸ The collection itself was advertised as having many uses, primary among them as a way to, “pass the hot hours of summer and to escape idleness.”³⁹ The potential to escape idleness indicates the monetary value of the collection, for in order to find oneself in a state of idleness one must first have the financial means to do so. Although, this experience of close viewing for extended lengths of time was not solely limited to the wealthy elite. For those individuals who could afford a single engraving or even a woodblock print, often the more inexpensive alternative, the intimate experience prints permitted was made accessible.

³⁷ Ibid., 107.

³⁸ Ibid., 107-108.

³⁹ Ibid., 108.

Besides the artists, fellow printmakers, and connoisseur collectors who acquired and carefully examined these images in either scholarly or lay secular settings, prints in early modern Europe were also often sites of Christian imagery aimed at a pious audience. An example of such a series would include imagery on the Passion, illustrating the Stations of the Cross and the suffering Jesus Christ endured on the journey up to and including his own crucifixion at Calvary. Such Passion images were intended as objects of contemplation, to encourage viewers to envision the events through such a visual aide in an attempt to reach a state of empathy for Christ and the pain he withstood for the salvation of humankind. One such example is the sixth scene within the Stations, the veil of Saint Veronica. As has already been elaborated, the experience of such images did not require the ability to read and allowed for a kind of personal and private access to the divine for illiterate and literate viewer alike. These prolonged acts of devotional viewing and contemplation encouraged a kind of visual literacy in the different technical features employed by printmakers in the creation of their images, and this includes the grid in crosshatched form.

In his essay titled “The Authority of Prints: An Early Modern Perspective,” William MacGregor relates the formal conventions and techniques of prints to the internalization of the technology and experience of the printed image.⁴⁰ Citing research on the relations between new technologies, communication, and creation, he writes, “One derives a certain mental world from regular exposure to and use of a certain medium.”⁴¹ As a result of this thought MacGregor attributes a number of metaphorical associations between the medium of print with the human

⁴⁰ William B. MacGregor, “The Authority of Prints: An Early Modern Perspective,” *Art History* 22, No. 3 (September 1999): 405.

⁴¹ *Ibid.*, 404.

mind to this precise moment in the history of early modern Europe, alongside the initial developed of the medium. With the expeditious growth and widespread popularity the printed image experienced over a relatively short period of time, MacGregor argues that it replaced the old and crude, yet nonetheless widespread, analogue of the Aristotelian wax tablet and the mind, as a blank and malleable surface upon which to record information. Instead the printed image introduced similar metaphors, like ‘impress’ and ‘imprint;’ words that happen to remain ubiquitous today and which center around the notion of impression as that which both applies to the process of making printed images as well as how the mind receives and records information. If this is indeed the case, then it seems likely that the form of the crosshatched grid, visualized through the purely linear techniques of woodcut and engraving, and experienced by users according to the affordances of the print medium – movement, rapid replication, intimacy – impresses itself upon the mind of the early modern user to structure their mental world, and as a result of this internalization, influences or even determines material and immaterial arrangements in the physical world.

Similarly to MacGregor, art historian Michael Baxandall has also written on the experience of the image during the sixteenth century. However, Baxandall chooses instead to focus his attention on painted depictions as opposed to the printed ones, despite his repeated use of the print medium throughout his study. This essential difference between these two approaches often appears to cause conflicting claims on behalf of both authors. For instance, by positioning the printed image as the new wax tablet, MacGregor argues that metaphorical concepts had fundamental implications for early modern ways of thinking, and he attempts to demonstrate the importance of understanding the power of the metaphor of impression which actualizes a certain

mental world primarily through the adoption of the metaphor itself.⁴² On the other hand, Baxandall argues decisively against such a conception of the early modern mind when he writes, “The public mind was not a blank tablet on which the painters’ representations of a story or person could *impress* themselves; it was an active institution of interior visualization with which every painter had to get along [emphasis added].”⁴³

The foremost distinguishing feature between the two authors and their arguments relies on the degree to which they believe early modern viewers had agency or control over the ways in which images entered their internal, mental world and determined their subjective experience of the external world. And while both find themselves somewhere in the middle ground, suggesting that such a process is often a mixture between conscious and unconscious processes, Baxandall leans more toward the idea that human agents enact some kind of conscious control within the experience of an image while MacGregor tends toward the latter. Regardless, unlike MacGregor who chooses to understand such interactions between image and viewer according to the notion of impression, Baxandall instead elaborates what he refers to as cognitive style.⁴⁴ He defines cognitive style as the culturally-determined interpretive skills one happens to possess: the categories, model patterns, and habits of inference and analogy, and he divides the concept into two conventions that speak to either predominantly conscious or unconscious skills in interpreting visual representations.⁴⁵ The first of the two conventions is more immediately related to what it is that can actually be seen by the eye while the second convention is more

⁴² Ibid., 405.

⁴³ Michael Baxandall, *Painting and Experience in Fifteenth Century Italy* (Oxford: Oxford University Press, 1972), 45.

⁴⁴ Ibid., 30-32.

⁴⁵ Ibid., 29-30.

abstract or conceptual in nature and requires the intervention of human cognition to attribute certain meaning to a given form. However, according to Baxandall both conventions involve a willingness on the part of the viewer to interpret marks on paper as simplified representations of an aspect of reality, for in order to truly experience an image one must accept that it is inherently just that – an image formulated by an implicit set of rules that allow for certain forms or marks to signify certain physical things taken from reality.⁴⁶ Although, even in light of this definition, what remains uncertain about Baxandall's account of cognitive style is to what degree agency is required to participate in such a system of visual interpretation, especially when he writes statements such as these which arguably preference the idea of human awareness in this process: "In any event, at some fairly high level of consciousness the Renaissance man [sic] was one who matched concepts with pictorial style."⁴⁷

⁴⁶ Ibid., 32.

⁴⁷ Ibid., 36.

Chapter 4: The Veil of Veronica

Within the Old City of Jerusalem lies the *Via Dolorosa*, or ‘Way of Sorrow,’ named after the fated journey Jesus Christ took on the day of his crucifixion. It is believed that as he travelled this pathway on that day, bearing the immense weight of the cross on his back and with his head wreathed in a crown of thorns, he encountered a woman named Veronica. Overcome with pity, she offered her veil to Christ, who took it in his hands and pressed it to his sweating and bleeding face. From this act came a miraculous result; the image of Christ’s face had been imprinted on the cloth. This image – the only ‘true’ portrait Christ left to humankind – is known as the veil, or sudarium, of Saint Veronica. In fact, the Latin etymology of Veronica’s name references the very nature of the veil itself, *vera* meaning ‘true’ and *icon* meaning ‘image’ or ‘likeness.’

In the tradition of religious imagery from within the Christian faith, the motif of the veil of Veronica occupies a place of exceptional importance as the only ‘true’ image of Christ’s face. For centuries artists have used the theme of Veronica and her veil to visualize a number of distinct as well as interrelated ideas: to illustrate the sixth Station of the Cross, to represent the veil among the *Arma Christi*, to convey an image of a pious woman acting in loving devotion, to depict Christ’s face as it appears in the final moments of his earthly life – either as a serene and unblemished or as bloodstained and suffering – and among others, to speak to the miraculous nature of divine intercession. Furthermore, artists have used the theme of the Veil of Veronica in their work, though perhaps not always consciously, as a self-referential statement on the power, importance, and authority of devotional images, thereby asserting the significance of their profession.

In the application of the theme of the Veronica to the printed image, a number of interesting affinities emerge. Foremost, both the image of Christ's face on the veil as well as the process of printing images requires the act of direct impression in order to materialize an image. In his essay, "Prints and the Definitive Image," Charles Talbot points to this meaningful fact when he writes, "Though one might go too far by suggesting that the Veil of Veronica is the prototype of all printed devotional images, the analogy between the Sudarium and the nature of prints was not overlooked by those artists who made woodcuts and engravings of the pained face of Christ as if it were beheld upon the veil. The meaning of Veronica's name, 'True Icon,' further underscores the strength in the belief that contact with the original form imparted special authenticity to the resulting image."⁴⁸ While I would tend to agree that there is indeed a direct processual and physical correlation between the capturing of Christ's face on the veil and the action involved in making printed images, whether they be woodcuts or engravings, it remains curious that Talbot does not support his claim with either evidence or a further argument. Instead, after the end of that statement he merely cites an image of a single woodcut that demonstrates the theme of the veil as sufficiently explanatory of his argument, without referencing any written sources, by neither artist nor intellectual, which corroborate his claim that early modern artists were consciously aware of this connection. However, it would appear that he was correct.

A survey of the output of early European printmakers reveals that, in fact, the theme of the Veil of Veronica is featured within many of their practices. This can be observed in the case

⁴⁸ Charles Talbot, "Prints and the Definitive Image," in *Print and Culture in the Renaissance: Essays on the Advent of Printing in Europe*, eds. Gerald P. Tyson and Sylvia S. Wagonheim (Newark: University of Delaware Press, 1986), 201.

of the three earliest and most noteworthy engravers – Master of the Playing Cards, Master ES, and the first engraver known by name, Martin Schongauer (Fig.4-6). It seems, as Talbot suggests, that early modern printmakers were aware of the affinities between the processes involved in creating printed images and the miraculous impression of Christ's face on the veil, and following from the previous discussion on the relationship between textiles and papermaking, perhaps these printmakers were conscious of this close connection as well. Just as Alberti's *velo* acts as an intersection between the user and the thing represented, so too does the Veil of Veronica operate the same way – as an intersection between Veronica and Christ. Although, in the case of the veil, Christ's face was said to have been captured within the gridded warp-and-weft structure of the fabric itself.

The three printed images indicated above from these early engravers are those that were completed prior to the introduction to the system of linear perspective, and as a result the grid does not feature with the same strength as it does in the work that follows. It is in the figure of Albrecht Dürer that we see significant growth in three-dimensionality and depth within the printed image, and along with it the crosshatched grid, as we have already seen in the case of his treatise on measurement. As not only an artist, but also a theorist on perspective, Dürer is often credited with establishing the link between the north and the south and likewise for bringing linear perspective along with him. His print, *The Sudarium of St. Veronica* (Fig.7), is one example of the several Veil of Veronica images Dürer completed over the course of his career. This is also a place where one can perhaps more easily note the connection between the crosshatched grid, linear perspective, and textiles. Amongst the folds of the fabric an overlapping and complex network of crosshatching has been layered in order to give the viewer an impression of dynamism and depth through the use of light and shadow. For this image Dürer

chose a composition that demonstrates the mastery and control he and his workshop had over such techniques in linework and crosshatching. Yet, another example of the Veil of Veronica theme completed by Dürer three years later, *Angel Spreading out the Sudarium* (Fig.8), reveals an example of linework gone awry. While the theme of the Veil may have endowed artists with the opportunity to demonstrate their prowess with the print medium, the chaos and cacophony of lines within this woodblock print are evidence that such ventures were not always successful. Regardless, it remains noteworthy that many printmakers from this period picked up the theme of the Veil, and in cases such as Dürer's, repeatedly returned to it.

Talbot hints at the unique status of the Veronica as *acheiropoetic*, or in other words, 'not manufactured' or 'not made by hand.' However, the uniqueness of the Veil of Veronica is not only engendered by its *acheiropoesis*. In his study on the display of devotional icons in counter-reformation Italy, Andrew Casper positions the Veil of Veronica within an especially unique class of objects which he defines as "icon-relics."⁴⁹ These are objects which both satisfy the conditions of what defines an icon, as a religious work of art, as well as a relic, as the physical remains of a saint or venerated person. In Casper's argument the Veronica constitutes exactly one half of the objects within this small grouping. The only other object within this special class is the long piece of cloth known as the Shroud of Turin, which is said to have been wrapped around Christ's body in-between the deposition and the entombment, and as a result, material that displays the sanguineous stains from Christ's wounds and the shadowy apparition of his physical body.

⁴⁹ Andrew R. Casper, "Display and Devotion: Exhibiting Icons and Their Copies in Counter-Reformation Italy," in *Religion and the Senses in Early Modern Europe*, eds. Wietse de Boer and Christine Göttler (Leiden: Brill, 2013), 43.

In reference to their status as *acheiropoetic*, Casper also points out that, “these are the only icons of Christ that also enjoy the devotional prestige of an index.”⁵⁰ In this way, the Veronica simultaneously preserves both Christ’s presence as well as his likeness.⁵¹ Casper connects these unique and important attributes to what he refers to as “ocular communion,”⁵² or, in other words, the idea that sight provided the faithful with a viewable religious experience. This is especially the case for members of the Catholic faith, with whom Casper’s study is concerned, for as he suggests, it is the Catholic church who in light of the counter-reformation asserted its belief in the primacy of vision.⁵³ Though, for those who doubted their faith, he notes that the Veronica stood in as a “documentary witness to and participant in the principal events forming the cornerstone of the Christian faith.”⁵⁴ It is for these reasons the Veronica acts as dual object, one that both qualifies as devotional as well as documentary in nature.

For these reasons, and because of the unique and multifaceted nature of the Veronica, when this theme is used within printed images they seem to take on a certain set of qualities that add layers of meaning to their reception. In his appraisal of the devotional and documentary early modern printed image David Areford argues that our modern notions of reproduction are ultimately inadequate to describe the ways in which printed images reference other images or objects.⁵⁵ In this, there are several overarching thematic concerns that intersect with the interests of this thesis, beginning with his suggestion that in the case of miraculous images, reproduction

⁵⁰ Ibid., 45.

⁵¹ Ibid., 55.

⁵² Ibid., 53.

⁵³ Ibid., 43.

⁵⁴ Ibid., 44-45.

⁵⁵ David S. Areford, “Multiplying the Sacred: The Fifteenth-Century Woodcut as Reproduction, Surrogate, Simulation,” in *Studies in the History of Art* 75 (2009): 121.

was not used to document the exact details of the thing represented, but rather to communicate and important part of the experience of that thing to the viewer.⁵⁶ Areford also suggests that when printed images reference something specific with a similar scale, like a relic such as the Veronica, the experiential extension of the thing it represents lends a similar kind of power to the reproduction itself.⁵⁷ He writes, “The life-size scale thoroughly authenticates the image, allowing it to serve as a surrogate for the depicted object and as a fitting and powerful focus of devotion.”⁵⁸ While not true for all early modern printed representations of the Veil, some, like Agostino Carracci’s *Christ’s Face on the Sudarium* (Fig.9), make use of dimensions which resemble the size of the average human face.⁵⁹ This seems to demonstrate Areford’s point that the print could operate as meaningful object of devotion to its audience, providing the viewer with an experience of the thing it represented rather than merely a description.

In keeping with this claim that reproductions of relics such as the Veil could provide viewers with a similar experience of the thing itself, it appears as if printmakers were consciously provoking a certain kind of reaction to their prints, or at the very least appealing to a certain kind of sentiment. In their essays both Casper and Areford write on the public showings of the Veil of Veronica relic itself, which began during the thirteenth-century and would take place in the Holy City of Rome.⁶⁰ This display would often take place during annual processions

⁵⁶ Ibid., 124.

⁵⁷ Ibid., 130-131.

⁵⁸ Ibid., 139.

⁵⁹ Carracci is yet another artist who created multiple different printed versions of the Veil of Veronica over the course of his career. Because he was active in the last half of the sixteenth century, his repeated use of the Veil of Veronica theme demonstrates that this was not only popular among the early printmakers of the fifteenth century, but in fact often preoccupied printmakers for many years.

⁶⁰ Ibid., 146.

or otherwise on the occasion of a Holy Year, which was designed to appeal to pilgrims and normally occurred between every twenty-five to fifty years. Casper writes that these public showings were monumental affairs, with attendees numbering in the tens, and even hundreds of thousands of people – a practice that he notes continued into the late sixteenth and early seventeenth centuries.⁶¹ He cites a first-hand account written by an observer who attended processions where the Veil was displayed during the last quarter of the sixteenth century which reads, “the solemn presentation of the cloth with St. Longinus’s spear provoked ‘al the people [into falling] upon theyr knees, crying misericordia, and making doleful shoutes, and the Flagellanti then especially whipping theyr bodies and punishing theyr flesh.”⁶²

With this in mind, it seems the relic of the Veil of Veronica was able to provoke enthusiastic responses. This, taken with the unique experience printed images provided users as discussed in chapter three, demonstrates why it was both such a popular and powerful theme for the print medium. Understanding how the relic itself was experienced may provide further answers as to why the Veil was chosen as a theme so frequently, and sometimes repeatedly, by different printmakers. Not only was it the printmakers job to continuously develop their own technical skill, but it was also in their best interest to choose subject matter and themes that were appealing to their audiences, and therefore to a market of buyers. Multiple impressions of an image could be made from a single copperplate or wooden block. In the case of engraving especially, these plates were printed until the lines were no longer able to hold ink, and the quality of the impressions no longer rendered a saleable image on the paper ground. One of the

⁶¹ Casper, “Display and Devotion,” 50.

⁶² *Ibid.*, 49.

reasons that crosshatching became so valued as a technique in printmaking was because of its ability to create darker areas in an image in an economizing fashion, which could withstand the pressure of repeated impressions better than other systems of linework could.⁶³

The primary goal of all printmakers was not necessary to amass a collection of printed images to sell however. Andrea Mantegna used a precise system of parallel hatching to create tone rather than use crosshatching. The choice was a deliberate one, made in an attempt to distinguish his work from the existing association of printed images with a craft practice, and instead served to align his work with the ideals of art. Mantegna's drive to achieve chiaroscuro in print has been described as an obsession.⁶⁴ He hoped to achieve this effect by carving both deep and shallow lines to create correspondingly dark and light tones, although the shallow lines would often deteriorate too quickly underneath the pressure of the roller press which resulted in print editions that were quite limited in size. Though, despite these limited printings Mantegna maintained his opinion against crosshatching for his work. In places like Florence, the quality of a printed image began to be associated with the quality of the crosshatching, which determined their corresponding prices.⁶⁵ In this regard Landau and Parshall write, "The degree of care with which the lines cross one another seems, in fact, to be directly correlated to the overall quality of prints, so that those destined for the lower end of the market are cross-hatched with lines that meet at haphazard angles."⁶⁶ Coincidentally or not, it also seems as if Mantegna never tried his

⁶³ David Landau and Peter Parshall, *The Renaissance Print: 1470-1550* (New Haven: Yale University Press, 1994), 67.

⁶⁴ *Ibid.*, 69.

⁶⁵ *Ibid.*, 68.

⁶⁶ *Ibid.*

hand at the Veil of Veronica theme. It is interesting, to say the least, that the grid form in this case aligns itself with the interests of the market.

Mantegna's work stands in as a reminder that when there was such a wide variety of lines and systems of mark making to choose from, lines were not chosen solely based on technical skill nor their suitability to the chosen subject matter, but perhaps because they carried with them certain kinds of meanings or implications the artist intended to impart upon their viewers. Though, this process may or may not have always been a conscious one on the part of the artist, as they too were the subjects of the process of impression elaborated by MacGregor. Worth quoting at length, a famous passage from Descartes' study on the various properties of light comments on the nature of mark making in printed images, as well as the nature of printmaking more generally:

“made simply of a little ink placed here and there on a piece of paper, they represent to us forests, towns, men, and even battles. Yet from an infinity of diverse qualities which they lead us to conceive in the objects, they actually resemble them only in shape. And even this resemblance is quite imperfect, since engravings represent to us objects variously convex and concave on a surface which is entirely flat; and again, following the rules of perspective, they often represent circles by ovals rather than by other circles, and squares by diamonds rather than by other squares. Thus very often, to be more perfect images and to represent the object better, the engravings must not resemble it.”⁶⁷

Returning to Talbot who, like Descartes, comments on the finite visual vocabulary available to the engraver writes, “The printmaker, while seeking like the painter to represent the

⁶⁷ Ibid., 35.

shapes, mass, and textures of things in space, was limited to a vocabulary of lines, dots, and other graphic configurations that could be cut into wood or metal to hold the ink in place for printing on paper.”⁶⁸ Though this statement seems to ring true, there also seems to be within it an inherent contradiction. While of course one must concede that the printmaker was indeed limited to a certain set of lines or marks they could make on their block or plate, printmakers have demonstrated that in fact, there is nothing limiting about them. A burin in the deft hands of a skilled engraver could realistically represent the shape and texture of anything from the physical world. Some individuals even go so far as to suggest that engraved images can reproduce the phenomenon of colour.⁶⁹ Citing several individuals who argue for the ability of engraving to convey colour, including Rembrandt, Rebecca Zorach argues, “it is as if the black-and-white image *inseminates* the imagination, but without violence, enabling it to conceive the final product as the full-colour original.”⁷⁰ Zorach also suggests that in a contemporary context, informed by the photographic frame of mind that shapes how modern viewers interpret the world, the lines, dots, and hatches of early modern engravings appear quite obvious.⁷¹ Whereas to early modern viewers, these marks abscond themselves, allowing for the possibilities of experiencing materiality and colour within the engraved image.⁷² However, if this can be said to be the case, that printmakers had such a wide vocabulary of marks and lines to utilize, what does this mean for their use of the grid form?

⁶⁸ Talbot, “Prints and the Definitive Image,” 190-191.

⁶⁹ Rebecca Zorach. ““A Secret Kind of Charm Not to Be Expressed or Discerned”: On Claude Mellan’s Insinuating Lines,” *RES: Anthropology and Aesthetics*, no. 55/56 (Spring – Autumn 2009): 244.

⁷⁰ *Ibid.*

⁷¹ *Ibid.*, 236.

⁷² *Ibid.*

Chapter 5: Conclusion

Deleuze and Guattari define their conceptions of smooth and striated spaces as existing only in mixture, although they are not of the same nature.⁷³ Smooth space is nomad space, which always possesses a greater power of deterritorialization, while striated space is sedentary space, the space instituted by the State apparatus.⁷⁴ Although they do not associate the grid form with striation directly, they describe a certain understanding of striation as two series of parallels that intersect perpendicularly – a description I believe satisfies a definition of the grid form. Speaking about warp and weft and longitude and latitude, they write, “The more regular in the intersection, the tighter the striation, the more homogenous the space tends to become; it is for this reason that from the beginning homogeneity did not seem to us to be characteristic of smooth space, but on the contrary, the extreme result of striation, or the limit-form of a space striated everywhere in all directions.”⁷⁵ This statement also happens to draw a remarkable similarity to the technique of crosshatching. The tighter the network of crosshatched lines, the less space between them, the darker the resulting impression left behind, until the spaces between the lines are no longer perceptible and the crosshatched grid has collapsed into homogeneous darkness.

Grids are those which striate space. They are necessarily hierarchical, much like Alberti’s *velo* aided artists in fixing the apex of their visual pyramid in the pursuit of achieving linear perspective. They also schematize physical space and conceptions of space, which can be

⁷³ Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 474.

⁷⁴ *Ibid.*

⁷⁵ *Ibid.*, 488.

observed in the layouts of cities wherever private property is found. As Deleuze and Guattari write, striation relates primarily “to the role of the modern State apparatuses in the organization of capital.”⁷⁶ According to Caroline Levine, this is why forms are the stuff of politics.

In this thesis I have argued for the importance of understanding the grid form as it appears in the presence of crosshatching in early modern European printed images, particularly those which take up the theme of the Veil of Veronica. While this approach was not intended to suggest that this history of the grid form should be valued as any more or less significant than the many other iterations of the grid witnessed throughout history, it was intentional to open a nexus of interrelated concerns that beg further consideration. While I have preferenced a specific period in European history, Levine offers a reminder that forms do not belong to certain times and places, nor are they outgrowths of social conditions, instead hanging around ready for reuse.⁷⁷ It is true that forms permeate our existence, and to borrow MacGregor’s terminology, forms continually impress themselves upon us in subtle ways. Yet, at the same time, we are conscious users of these forms, and in some cases human actors decide how to operationalize them. If anything, I hope this study encourages us to question where and why the grid form functions in the organization of daily life, and how if the use of such a form were to change, how other possibilities for organization and experience may emerge.

⁷⁶ Ibid., 492.

⁷⁷ Levine, 12.

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