Reconsidering the Dante Series:
Botticelli’s Artistic Process as a Deconstruction of Vasarian Linearity

by

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ABSTRACT

Study of Sandro Botticelli’s graphic oeuvre – his drawings for the *Divina Commedia* (*Divine Comedy*) specifically – has long been at issue and unfrequented in art historical study, due in large to the transmission of the artist’s problematic biography and a lack of technical study of the art objects themselves. By first disassembling Botticelli’s complex historiographic inheritance, originally subverted by Giorgio Vasari, this study brings into question the accuracy of primary artistic biography, and the role it still plays in modern scholarship. By then examining and synthesizing the drawings’ material properties, with the incorporation of quantitative and digital media methodologies, this project offers a deconstruction of the “ideal” Renaissance, artistic process, as inherited by Vasari. These analyses in historical, rhetorical transmission, when combined with material evidence, propose instead that the artist worked according to an unsystematic, nonlinear method of production that seeks to elevate Botticelli’s graphic output and edify his modern biography.
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One year ago I first learned of Botticelli’s “Dante drawings” on vellum, at which point I read their textual precedent, *la Commedia*, and studied the very drawings in the flesh. I had the rare opportunity to begin my research with the primary source materials themselves, and began the project in much the same way Botticelli did his: with a textual narrative and dozens of vellum sheets.

I was fortunate to have initiated research on this topic at a time when Botticelli scholarship, on the public level, was gaining popularity once again. The art world of the twenty-first-century was undergoing the same resurgence that had occurred over a century ago, inviting a reconsideration of the artist and his works. It is my hope that this work, inviting close scrutiny of the objects’ material properties in conjunction with problematic primary record, will lend itself to future study on Botticelli’s artistic process and its repercussions on a long-supported, and yet problematic, historiography.

It is a great pleasure to express my gratitude to all who have helped me and made this exploration possible.

The success and, no doubt, enjoyment of this project are much indebted to the mentorship and guidance of Professor Ruth Noyes. From the beginning she allowed this project, in all its eccentricity, to be my own, and what a gift that has been. I simply could not have done it without her compelling wisdom, support, and kindness as I revisited the Renaissance and trod through its charged themes and scholarship’s complicated methodologies. It is on account of her tireless revisions and our lively discussions that I have improved as a writer, observer, and thinker in ways I had not thought possible.
A special thank you to Professor Nadja Aksamija for first planting the seed to study these two very important and influential artists, Dante and Botticelli, a motivation that spurred this most exciting year of research.

Both Professors Aksamija and Noyes are an inspiration and I can only hope that this work does them proud.

Additional thanks to Professors Phillip Wagoner and Joseph Fitzpatrick for taking the time to talk through aspects of my thesis with me and offer outside, interdisciplinary perspectives. And a final thank you to Professor Marco Aresu, for guiding me on all things literary and philosophical as I journeyed through reading Dante’s *Commedia*.

The idea of exploring Botticelli’s artistic process developed out of site-specific research, completed in the summer of 2016, to see Botticelli’s work within the states and abroad. This opportunity was made possible by the generous funding of the John T. Paoletti Travel Fellowship, provided by the Wesleyan University Art History Department.

Thank you to the following museums and collections that responded generously to my requests for information and their hospitality in hosting me: the British Museum, the Courtauld Institute and Gallery, the Morgan Library & Museum, the Met Breur, the National Gallery, and the Victoria and Albert Museum. I would like to personally thank Dr. Sarah Vowles of the British Museum, Dr. Rachel Sloane of the Courtauld Institute and Gallery, and Drs. John Marciari and Illona van Tuinen of the Morgan Library & Museum for being so forthcoming with information and for their encouragement while speaking with me about my research.
A special feeling of gratitude to my friends and family: my parents for their constant support, my sisters for their encouragement and push for tenacity, and my incredible friends for their warmth and understanding (Meghan in particular, who helped me construct my initial data table back before I could even conceive of its important implications for this study).

And a final thank you to the great artist himself, Sandro Botticelli, for inspiring this research. Though he still remains, in large part, an enigma, I like to think that in studying all the wonderful minutiae in his drawings I was able to get a bit closer to the man himself. The Botticelli I have begun to see is one unclouded by the veneer of history, and instead an artist, in the true sense of the word, here presented in a simultaneously static and evolving image.
PART I

The Invention of Botticelli: A Historiographical Dilemma
Circa 1480-1495 Sandro Botticelli (1445-1510) began work illustrating the complete text of Dante Alighieri’s *Divina Commedia* (*Divine Comedy*). This was a project of remarkable scale and required the artist to illustrate every canto of the *Commedia* on more than one hundred large vellum sheets. Botticelli’s renderings follow the character of Dante as he moves through the varied topography of the afterlife’s three realms: *Inferno* (Hell), *Purgatorio* (Purgatory), and *Paradiso* (Paradise). In substance, the series represents the merging of two of Florence’s greatest artists into a single body of work. It suffuses a foundational Italian literary narrative with the pictorial imagination of a visual artist whose canonical status in the history of art has remained by and large undisputed since it was first established by his cinquecento successors. His place within the canon, however, has been persistently misjudged, thanks largely to preconceptions set down by the same successors. This study attempts to scrutinize these preconceptions and their historiographic inheritance, and offer some alternative approaches to studying ‘a-canonical’ works like these drawings.

Apart from the recognized attribution of the ‘Dante drawings’ (as I will refer hereafter refer to them) to Botticelli, details of the commission remain elusive. One of the earliest documented sources on the drawings compiled in the 1540s, the so-called

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1 Most scholars agree that the Dante drawings were completed in the 1490s, a date first proposed by Herbert Horne and Bernard Berenson in the early twentieth-century. A second view, first proposed by Friedrich Lippmann in 1887, supposes that work on the cycle began before 1480 and continued with long interruptions until the artist’s death in 1510. See Hein-Th Schulze Altcappenberg, “‘per essere persona sofistica’: Botticelli’s Drawings for the Divine Comedy,” in *Sandro Botticelli: The Drawings for Dante’s Divine Comedy* (London: New York: Royal Academy of Arts; Distributed in the U.S. and Canada by H.N. Abrams, 2000), 24.
Codice Magliabechiano, notes that Botticelli’s “Dante on vellum” was executed for Lorenzo di Pierfrancesco de’ Medici. The cycle, featuring full folio illustrations, breaks with an elemental principle of manuscript illumination that favors the word over the image. Ambiguities in the drawings’ intended function, whether as a compendium of illustrations or an illuminated manuscript, only intensify the mystery surrounding the commission.

Evidence of the drawings’ whereabouts immediately following Botticelli’s death has proven elusive. Of his one-hundred and two initial drawings, eight

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2 I will address in the following pages the content and impact of this text by “Anonimo Magliabechiano,” which describes the commission as “a Dante on sheepskin for Lorenzo di Pierfrancesco de’ Medici” (Altcappenberg, “per essere persona sofistica,” 22). Also cited in R.W. Lightbrown, “Botticelli as a Draftsman and as Master of a Workshop,” in Sandro Botticelli: Life and Work (New York: Abbeville Press, 1989), 290.

3 In Medieval scholarship the terms “sheet,” “page,” and “folio” have different definitions and connotations as they relate to bound codices. In Renaissance scholarship, notably as it pertains to these specific drawings, of which the final structure and function are uncertain, these terms become relatively synonymous. For the purposes of this study I will use the three terms interchangeably.

4 Altcappenberg, “per essere persona sofistica,” 30. Ronald Lightbrown’s monograph argues that the drawings were a “Dante that Botticelli wanted just for himself.” See Lightbrown, “Botticelli as a Draftsman and as Master of a Workshop,” 290.

5 Evidence of the commission is lacking it is unknown how or for what purpose the Medici intended to use or display the finished codex or compendium. Thanks to inventories and other primary documents we know the circumstances of many other Medici commissions. If new discoveries are made citing archival documentation of the commission and its precise dating and function it might be possible to reconstruct the moment of the object’s making and the drawings’ unrealized plan. Dagmar Korbacher introduces some hypotheses held by scholars on the location of the drawings in these intermittent centuries, but, as noted by the author himself, they are “not convincing.”
illustrations (*Inferno II-VII, XI, XIV*) are thought to have been lost, while two more sheets with the unillustrated text of *Paradiso XXXII* and *XXXIII* disappeared from the Kupferstichkabinett in Berlin at an unknown date.\(^6\) *Paradiso XXXI* was never executed. With the exception of *Inferno I*, the upper sheet of Satan, and *Purgatorio I*, the text of Dante’s poem written in Humanist script by Nicolaud Mangona survives inscribed on the rough sides of the parchment.\(^7\) The text is written in four horizontal columns.\(^8\) The *Chart of Hell* and *Inferno I* are on the recto and verso of one sheet, respectively, and Lucifer occupies a double sheet. The surviving stack of drawings makes up ninety-two images on as many sheets.\(^9\)

In addition to the missing pictures from select cantos, each drawing’s level of completion varies, ranging from faint, barely visible preliminary sketches (*Inferno XXX, Purgatorio VIII, Paradiso XIX*) to partially or fully colored illustrations (*Chart of Hell, Inferno X, XVI, XVIII*). The work’s personality and aesthetic are thus fragmented and lacking “the illusion of a visual continuum.”\(^10\) The absence of originary documentation notwithstanding, the drawings’ present heterogeneous cross-series state of being reflects neither the stipulations of the artist’s commission, nor the

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\(^6\) The one hundred and two drawings in question would presumably have been composed of the thirty-three cantos each for *Purgatorio* and *Paradiso*, the thirty-four cantos for *Inferno*, the second drawing of *Inferno XXXIV*, and *Chart of Hell*.

\(^7\) Altcappenberg, “‘per essere persona sofistica,’” 19.

\(^8\) There is bit of dissention on whether the text was written before or after Botticelli made the illustrations. One perspective, by Hein-Th Schulze Altcappenberg, argues that the text was written after the illustrations on the basis that if it was written before, the lines that the scribe ruled on the verso would have disrupted the fluidity of the artist’s linework. The ridges produced on the recto by this kind of line ruling would have rendered interruption of the line. An alternative argument, advocating for the ruling of lines before Botticelli received the drawings, is proposed by Doris Oltrogge, Robert Fuchs and Oliver Han in their essay “Finito and Non finito: Drawing and Painting Techniques in Botticelli’s Divine Comedy” (both essays are in *Sandro Botticelli: The Drawings for Dante’s Divine Comedy*, 14-36, 334-342, respectively).

\(^9\) Altcappenberg, “‘per essere persona sofistica,’” 19.

\(^10\) Ibid.
patron’s expectations, regarding the delivery of a final work product. This is therefore an unfinished work, according to the (albeit few) known details of the circumstances of the commission. For the purposes of the present study, I will use the term ‘unfinished’ to denote a state of comparative completion relative to original project parameters and specifications – namely that the Dante drawings collectively were intended ultimately to become a bound volume of colored drawings with text. The series, in its unfinished state, raises the issue of different understandings of ‘unfinished’ in the late quattrocento, the consequences of which I will return to in my conclusion.11

The Dante drawings are situated in the midst of a tenuous conveyance of the artist’s biography and factor very importantly into two major moments in Botticelli’s historiography: the sixteenth and nineteenth-centuries. The lack of original documentary evidence for the commission, and the artworks’ disappearance in Botticelli’s own era, have created a “perfect storm” of circumstances, such that historiography from the first modern era, through the nineteenth-century to the present day, has made recourse to the late-cinquecento account in Giorgio Vasari’s Lives of the Most Eminent Painters, Sculptors, and Architects, or Vite (first edition 1550, second 1568). Vasari (1511-1574), an artist himself, is better known for his critical history of art, relayed through a series of primarily anecdotal biographies of

11 This issue of the ‘unfinished’ in Italian Renaissance drawing can best be explored through comparanda of similar period and material. Both Leonardo da Vinci’s The Burlington House Cartoon and Michelangelo Buonarroti’s, now lost, Battle of Cascina cartoon were large-scale preparatory drawings that, in their own time, were exhibited as final works of art, despite their incomplete states. For more analysis see Joost Keizer, “Michelangelo, Drawing, and the Subject of Art,” The Art Bulletin 93, no. 3 (2011): 304-24.
Italian artists.\(^{12}\) The analysis that follows offers a critical reading of Vasari’s version of Botticelli – notably as a draftsman for the Dante series – which has tenaciously endured for centuries, inflected in Friedrich Lippmann’s important 1887 expositional essay, through to the present day.

1.2 PROBLEMS IN BOTTICELLI’S BIOGRAPHY: RHETORIC AND TRANSMISSION

Vasari shaped his *Lives* primarily using literary narrative writings to create a textual paradigm for his own collection of artist biographies. The collective *Lives* culminated with Michelangelo Buonarroti as the “inevitable evolutionary acme of all art.” This teleology, motivated by Vasari’s own personal and professional aspirations, meant that all of the biographies leading up to Michelangelo’s were in some way subordinated within this larger, evolutionary scaffold. This then defined both the general form and content of the *Lives* as a whole as well as the form and content of each individual Life of each individual artist: “But the man who wins the palm among artists both living and dead, who transcends and surpasses them all, is the divine Michelangelo Buonarroti, who reigns supreme not merely in one of these arts but in all three at once.”

This particular framework, itself disparaging Botticelli to then elevate Michelangelo, is no means an accidental construction. In fact, the biographer structures his *Lives*, testified in its three-part division, to clarify his agenda, that of promoting the divine Michelangelo. This three-part construction creates a historical narrative that is relatively chronological, each part representing, in loose terms, a generation of artists. Botticelli is situated in the second part, or generation, while Michelangelo occupies the third.

If the first generation, beginning with Giotto, embodies, according to Vasari, antiquated notions of artistic production belonging to the past, and the third belongs

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14 Ibid, 282.
to Vasari’s present in a way that is meaningful for the future, the second generation is therefore a transitional period. He states that, while the second generation improved techniques of the first generation, the quality of these improvements were still lacking in five qualities [rule, order, proportion, design, style]. He then goes on to enumerate five qualities in which the second generation, that of Botticelli, failed. To list a few, “in proportion they lacked good judgment,” “in design they had not fully examined how to depict the muscles with that soft and graceful facility” and “their figures were crude and clumsy, offensive to the eye and harsh in style.”

Vasari claims that the third group of artists “caused the disappearance of a certain, dry, crude, and clear-cut style which was bequeathed to this craft” while the second group, defined as “artisans” instead of artists, failed with their “displeasing foreshortenings and perspectives, which were as difficult to execute as they were unpleasant to look at.” Vasari therefore aims to differentiate the third generation, that of Michelangelo, from the second by closely aligning the second generation, Botticelli’s, to the first, that of Giotto. His Lives allow that the second generation may master methods of artistic production important to the first generation, but prohibit that they supersede those of the third. According to Vasari’s framework, hereby laid out, a good artist not only had to have a professional biography that had a clear beginning and end, but also a particular teleological narrative that demonstrated stylistic development and, preferably, improvement.

Surviving evidence paints a different picture of perceptions regarding Botticelli in his own lifetime, or shortly thereafter. Contemporaries regarded him as

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16 Ibid, 279.
one of the great Florentine masters in his lifetime, aligning with the ancient artist Apelles of Kos.\textsuperscript{17} Botticelli died, however, just as the terza maniera high Renaissance style was on the rise, and therefore his artwork, which was relatively new, became old-fashioned almost immediately.\textsuperscript{18} Vasari’s account, being the primary biography of the artist, reflects this shift in Florentine taste. Given the scant scholarship during the seventeenth and eighteenth-centuries, Vasari’s biography is the lasting narrative on the artist and his Dante drawings.

The first record of Botticelli, by Francesco Albertini, canon of the San Lorenzo Basilica, described works of art housed in Florentine palaces and churches in \textit{Memoriale di molte statue et picture sono nella inclypta cipta di Florentia}, written in 1510, in which he referenced a small number of Botticelli’s works.\textsuperscript{19} Second to Vasari’s canonical account of the artists, and arguably the document’s inspiration and predecessor, is Anonimo Magliabechiano’s (or Gaddiano to some scholars) manuscript, \textit{Il Codice Magliabechiano}.\textsuperscript{20} Magliabechiano is thought to have taken Albertini’s existing list and added anecdotes to it, in turn forming the first narrative biography of the artist, though no substantial evidence confirms this supposition. Compared to Vasari’s \textit{Lives}, this manuscript, compiled between 1542 and 1548, relays a more rudimentary, though structurally similar, account of Renaissance artists.

\textsuperscript{17} R. W. Lightbrown, “Introduction” in \textit{Sandro Botticelli: Life and Work} (New York: Abbeville Press, 1989), 14. In this analysis I use the 1989 edition of Lightbrown’s volume, as opposed to the original 1978 edition, because it includes the images in-text and amends and updates any bibliographical or scholarly issues that may have differed from the first edition.

\textsuperscript{18} Ibid.

\textsuperscript{19} Francesco Albertini, \textit{Memoriale di molte statue et picture sono nella inclypta cipta di Florentia} (Florence, 1510).

\textsuperscript{20} K. Frey, \textit{Il Codice Magliabechiano cl. XVII. 17} (Berlin, 1892). For a detailed analysis of Botticelli attributions included in the Anonimo Magliabechiano manuscript and in the \textit{Memoriale of Albertini}, see P. Murray’s \textit{An Index of Attributions Made in Tuscan Sources before Vasari} (Florence: Olschki, 1959), 29-32.
Vasari’s immediate and unwavering influence in subsequent scholarship can first be seen in the relatively scant writings that remain from his century.\(^{21}\) Raffaello Borghini, a Florentine art critic and poet, when discussing Botticelli’s biography and oeuvre, paraphrases Vasari in his *Il Riposo*.\(^{22}\) Despite relying heavily on Vasari’s prose, Borghini mentions a handful of paintings that the earlier biographer overlooks.\(^{23}\) More complete records of the artist’s works can be found in Francesco Bocchi’s 1591 *Le bellezze della citta di Fiorenza*, a guidebook in kind that again references two works by Botticelli seemingly undocumented in earlier sources.\(^{24}\)

Many scholars accept the possibility that Vasari knew the work of Anonimo Magliabechiano, but doubt that he consulted it considerably.\(^{25}\) Despite this, if we accept the dates of Magliabechiano (early- to mid-fifteenth-century pre-dating Vasari), based on the similarity of the two texts, it is convincing that Vasari borrowed from Magliabechiano’s manuscript when writing his *Lives*, particularly his “Life of Botticelli.” While Magliabechiano’s text is arguably elementary, Vasari copies the structure, even down to the very order in which he mentions the artworks. Comparing the two works also reveals that Vasari, likely intentionally, suppressed several works

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\(^{21}\) Other references to the artist, less pertinent to the present discussion, are as follows: Florentine merchant Antonio Billi compiled as notes a now lost codex, *Libro di Antonio Billi*, a collection of references to Florentine artists and their respective artworks. See M. Luzzati, *Dizionario biografico degli italiani*, vol. 10 (Rome: Istituto della Enciclopedia Italiana, 1968), 470. Two now extant manuscripts derive from Billi’s notebook, one of which, the *Codice Petrei*, compiled between 1565 and 1570 by Antonio Petrei, then canon of the Florence cathedral, mentions Botticelli (now Cod. Magl. Xiii, 89 of Biblioteca Nazionale, Florence). Folios 38V to 51V derive from Antonio Billi, published by K. Frey, *Il Libro di Antonio Billi* (Berlin, 1892).


\(^{23}\) Lightbrown, “Introduction,” 16.


and added others.

Vasari’s second edition is shorter and manufactures a more unfavorable, and arguably more negatively biased, identity of Botticelli. This censure of the artist is likely due in part to Vasari’s misinformation that Botticelli’s financial accounts were in ruin as well as his political standing as part of the *piagnoni*, followers of Savonarola and enemies to the Medici, Vasari’s patrons.\(^\text{26}\) Perhaps more instrumental in Vasari’s disfavor towards the artist is that he found Botticelli a threat to the more prodigal Michelangelo, to whom Vasari was particularly attached, evidenced in his narrative framework. Vasari begins his “Life of Michelangelo” noting that the artist was born “under a fateful and fortunate star” – his name “inspired by One from above,” – destined to become “celestial and divine, beyond the usual human scope, as was seen in the horoscope of his birth, which had Mercury ascendant and Venus entering the house of Jupiter in a favourable position.”\(^\text{27}\)

While Vasari’s “Life of Michelangelo” claims a polemically partial tone, his “Life of Botticelli” is arguably distorted and, if we push it further, even biased against the artist. His anecdotes and treatment of Botticelli’s character read more as fiction than fact. A connection between the two artists is no doubt obscured by Vasari’s narrative strategy, in which he praises Michelangelo for his intellectual and creative abilities, and casts Botticelli in a position more akin to a craftsman who lacks formal education and intellectual facility. According to Vasari, Botticelli, while clever, was of a “whimsical mind” and did not particularly thrive in his academic pursuits. This is in direct contrast to the prodigy that Vasari claims Michelangelo to be.

\(^{26}\) Stapleford, “Vasari and Botticelli,” 398.
Vasari expresses this disregard for Botticelli, in addition to ridiculing the artist’s personality and social standing, by critiquing his artistic technique. In noting Botticelli’s exercises in engraving, and the fact that the artist put many things he had drawn into engraving, Vasari reports that they were done in “a bad manner because the cutting was badly done” but allows that the artist’s facility can perhaps still be seen in his *Triongo della Fede of Fra Girolamo Savonarola of Ferrara.*”\(^{28}\) Despite this muted critique of Botticelli’s craft, in so far as engravings, Vasari still manages to commend the artist, though minimally, for his sense of design. To quote Vasari, Botticelli painted his church fresco at San Pietro Maggiore “with masterful skill and minute attention;” he specifically praises the artist’s effort in rendering the heavenly spheres, his versatile constructions in foreshortening, and the calibration of space between figures and angels, all of which, to the biographer, were “executed with a fine sense of design.”\(^{29}\)

Vasari also allows that Botticelli was skilled in color theory and capable of depicting beautiful and lifelike figures. There is, however, a certain disparaging treatment, and one could argue condescension, of the artist in Vasari’s descriptions. While commending Botticelli, Vasari describes the artist’s method as being “executed with loving care” and the figures, while lifelike and revealing of the sitter’s personality, to be done with “minute attention.” This particular teleology caters to Botticelli’s generation, that preceding Vasari, in which attention to minutia and diligent and refined style, evocative of an earlier tradition, were valued. Vasari

\(^{28}\) Vasari, “Life of Botticelli,” 228. This engraving does not exist today, so we are unable to verify what precisely Vasari considered Botticelli’s “best,” at least in terms of engraved work.  
\(^{29}\) Ibid, 226.
characterizes this as Botticelli’s particular craft, which the artist amended with “imaginative details.”

As I have laid out, Vasari, by manipulating Botticelli’s biography, invents fictitious representations of failure for the artist, in his unskilled engraving practice, crippling debt, and antiquated skill in method and design. In doing so, he further mythologizes Michelangelo as a genius whose skill was so avant-garde that it shattered the dated practices of quattrocento artists. While Vasari wrestles with his own characterization of Botticelli, and is forced to acknowledge that some of Botticelli’s graphic work was coveted, his characterization of the artist’s style as predecessor of Michelangelo seems to argue that only Buonarroti could bring true disegno, design that devotes itself to line and contour, to fruition.

While Vasari’s critique of Botticelli’s artistic competency is somewhat subdued, his defamatory portrayal of the artist’s character is less restrained. Though he is purported to have earned a good deal of money from commissions, Botticelli “wasted all of it badly through poor management and carelessness” and lived, to quote Vasari, “a haphazard existence” after his sojourn to Rome.

Of significance for my study is the fact that Vasari insinuates a connection between Botticelli’s financial shortcomings, and his failings as a draftsman, in his discussion of his pen and ink illustrations for Dante’s Commedia. While he does not address the precise craft or skill of the drawings themselves, the author implies that the drawings drove Botticelli into financial and emotional ruin, and hints that they

31 Ibid, 230.
were unsuccessful, conclusions most certainly informed by bias.\textsuperscript{32} Vasari’s final disparagement of the artist is that he grew “old and useless,” having grown so dependent on his patron, the Medici, that without them he would have starved to death. Vasari’s slander of Botticelli’s character outstrips any account of his actual artworks: less than a third of the Life is dedicated to discussion of Botticelli’s art.\textsuperscript{33} In doing so, the biographer encourages a view of the artist as petty and preoccupied with base monetary matters, the purview of lower craftspeople, not refined artists.

Botticelli’s drawings for the \textit{Commedia} were excluded from the first edition of the \textit{Lives} but mentioned, albeit briefly, in the second, 1568 edition. Given that the structure of Vasari’s 1550 \textit{Lives} echoes that of Magliabechiano’s codex, it can be suggested with relative certainty that Vasari knew of the works.\textsuperscript{34} Why he withheld

\textsuperscript{32} Records indicate that Botticelli was a member of the Campania di San Luca, a confraternity founded in the fourteenth-century to serve the “spiritual and bodily” needs of painters. The artists met in Santa Maria Nuova where they used the hospital’s \textit{cappella maggiore} as an oratory. Having declined in the mid to late fifteenth century, the Compagnia made an effort to revive itself in 1472 with requisite fees by members, recorded in its Libro. From these records, we learn that Botticelli’s brother, Antonio, was one of the four Consiglieri of the Compagnia in February 1473. We also learn that “Alessandro di Mariando dette Botticelli dipintore” was a member by various payment and debt records dated 1473 to 1505. While he sometimes had outstanding debts for a few years at a time - the greatest being seventeen soldi and four danari between 1503 and 1504 – the sums, though substantial at the time, are certainly not enough to suggest crippling finance. Botticelli was debted six soldi for fees due to the guild in 1472. He paid these bills on October 18 of the same year, which included the yearling offering for the feast day of Saint Luke. He is recorded to have paid his dues again on February 7, June 4, and September 24, 1473. He is not mentioned again until November 1482 for paying ten soldi, based on the scant number of entries here noted as being left unpaid for the longest time. On October 17, 1503 his name returns to the \textit{Libro} where he is said to have owed seventeen soldi, and four danari towards the cost of paintings in the meeting hall for the Compagnia. He paid this debt in full on October 18, 1504, in addition to a newly charged seven soldi. October 18, 1505 is the last entry in the record, with a charge of seven soldi for the festival of Saint Luke, and four danari for more paintings in the meeting hall. He is recorded to have paid the charges that same day. See Lightbrown, “Botticelli as a Draftsman and as Master of a Workshop,” 303.

\textsuperscript{33} While Vasari likely consulted unreliable sources and had limited material to work with in constructing his “Life of Botticelli,” it is compelling to think that he also wanted to push the reader to develop a certain view of the artist.

\textsuperscript{34} There is some disagreement in the scholarship as to whether Vasari’s mention of the \textit{Commedia} was in reference to the drawings, or to corresponding engravings by Baccio Baldini published in the 1481 printed edition of the \textit{Commedia} (Niccolo di Lorenzo). Botticelli never completed engravings for the \textit{Commedia}, but it has been suggested that Vasari, given his misconstruing Botticelli as author of the commentary for the same 1481 printed edition – a role actually performed by Cristoforo Landino –
them in the first edition, then, is somewhat of a puzzle and cannot be determined with certainty. Vasari set up the basic terms for how we acknowledge and describe Botticelli, and yet he doesn’t appear to know what to do with the drawings at first, and what little space he allows in the second edition prescribes to his disregard for the artist. It is as a result of this relative chasm in the primary scholarship of these works, taken with lacking evidence of the commission and provenance, that the drawings didn’t find a place in scholarship and the Botticelli narrative until Lippmann in 1882.

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may have also thought (incorrectly) that Botticelli executed the engravings for the publication. See Peter Keller, “The Engravings in the 1481 Edition of the Divine Comedy,” in Sandro Botticelli: The Drawings for Dante’s Divine Comedy (London: New York: Royal Academy of Arts; Distributed in the U.S. and Canada by H.N. Abrams, 2000), 326-333. Despite scholarly lack of consensus surrounding this issue, my reading of Anonimo’s influence on Vasari clarifies that the later biographer was in fact aware of the vellum drawings, and recommends, with relative certainty, that Vasari’s mention of the Commedia illustrations in his “Life of Botticelli” were in reference to the vellum drawings.
1.3 A[FTER]. V[ASARI]. FROM THE NINETEENTH-CENTURY INHERITANCE TO THE PRESENT

The original set of Botticelli’s Dante drawings was broken up in the third quarter of the seventeenth-century, and are now distributed between the Vatican library and the Kupferstichkabinett Berlin. The seven Vatican drawings were bound into cod. Reg. lat. 1896, a miscellany that concludes with a dated bookplate, 1532, belonging to Parisian bibliophile Alexander Petau. In 1658 the codex went to Rome when Queen Christina of Sweden moved with her collection to the city. Cardinal Pietro Ottoboni, who became Pope Alexander VII in 1689, then acquired it, and later presented it to the Biblioteca Apostolica Vaticana.35

Victorian-era Botticelli scholarship, inspired by the 1815 removal of his Birth of Venus and Primavera from the Medici villa at Castello to the Uffizi, was founded on the iconographic and mystical beauty and significance of his works.36 To the Pre-Raphaelite Brotherhood, founded in 1848, major proponents for the emulation of early Renaissance artistic methods, Botticelli’s importance and aesthetic model lay in his ability to create a sensual and poetic world, executed by means of his refined and minutely detailed style.37 Rooted in religion and philosophy, his works were also romantic and fanciful and therefore did not demonstrate the artist’s capacity for technical and intellectual expertise.

35 Altcappenberg, “‘per essere persona sofistica,’” 21.
37 The Pre-Raphaelite Brotherhood, known as the Pre-Raphaelites, were a group of English poets and painters who rejected contemporary styles prescribed by the Royal Academy and instead sought to emulate the style of Italian artists in the period preceding Raphael, that of the fourteenth and fifteenth-centuries.
By the mid-nineteenth century, some of the Dante drawings, now in Berlin, had made their way from the hands of Giovanni Claudio Molini (1724-1812), residing in Paris, to William Alexander Louis Stephen Douglas, the twelfth Duke of Hamilton and ninth Duke of Brandon (see figure 1 for image of the so-called “Hamilton codex” binding with Molini’s notations). The last third of the nineteenth-century witnessed Botticelli’s “rediscovery,” as Walter Pater and John Ruskin, among other authors, established Botticelli as a kind of artistic paradigm. The 1864 work of scholars J.A. Crowe and G.B. Calvalcaselle identified, dated, and studied a good part of Botticelli’s work.

The majority of the drawings, eighty-eight in total, resurfaced at a London Sotheby’s auction in 1882. Included in the auction registry, which boasted many famed and coveted artworks, were the Dante drawings, at that point cased in an eighteenth-century French half-leather binding. This caused quite a stir in the museum world of late nineteenth-century London and Berlin. The drawings were cited in media and brought to the British public’s attention: rumors circulated that the

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38 Molini was a member of a Florentine family of book dealers and publishers active throughout Europe. Pasted on the front inside cover of the Hamilton Codex half-leather binding is a statement signed by Giovanni Claudio Molini, dated April 27, 1803, that records the drawings as being in his possession. See Altcappenberg, “‘per essere persona sofistica,’” 23.

39 Rehm, “Character Assassination with Consequences,” 139.


41 Two years later the objects were registered in collection inventory as codex Hamilton 201 with accession number 164-1884, information cited in the annotated Sotheby’s sale catalogue, The Hamilton Palace Libraries. In the catalogue the item was listed as “88 exquisitely beautiful designs by SANDRO BOTTICELLI.” A selection of the works is listed in a book entitled Reportium Bibliographicum, Or Some Account of the Most Celebrated British Libraries. It includes (page 260) a reference to the drawings: “Dante Alighieri, La Commedia, MS. On vellum, oblong folio. Saec. XV. This fine MS., written about the year 1450 contains the entire poem, with the exception of some Cantos of the ‘Inferno’. It is ornamented with eighty-eight original designs supposed to be executed by the hand of Sandro Botticelli, or some other eminent Florentine artist.” See Korbacher, “‘I am very, very happy that we have it,’” 11, 15.
Kupferstichkabinett was courting the Duke of Hamilton in an unveiled effort to acquire the manuscript. Queen Victoria herself was a major proponent for keeping the Dante collection in Britain.

Despite British efforts, however, the Berlin Kupferstichkabinett ultimately added the Dante sketches to their permanent collection, thanks largely to the efforts of Friedrich Lippmann, then director, who strongly advocated for the acquisition. Lippmann was not a Botticelli specialist in the strict sense of the word, but rather “a great admirer of Renaissance art.” He first viewed the drawings on June 9, 1882 at Ellis and White in London, and wrote the following day to Richard Schöne, director-general of the Königliche Museen of Berlin, to confirm that they were in fact the work of Botticelli.

Newly equipped with the Dante drawings, then esteemed for their novelty and increased press, Lippmann published their first companion catalog in 1887, five years following their acquisition. In large, this publication was a reduced facsimile of the originals and combined the newly acquired drawings from Berlin with the seven already housed in the Vatican. Lippmann prefaces the facsimile with a brief biography of Botticelli in which he details the production of the Dante drawings. This volume was again composed in response to the Pre-Raphaelite resurgent interest in

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43 Interestingly, Lippmann is not mentioned, or even cited, in most texts on the Dante series, with only a mention in the Royal Academy of Arts 2000 exhibition catalogue (Altcappenberg, “‘per essere persona sofistica,’” 20). He is given due citation in the Courtuld Gallery 2016 catalogue (Korbacher, “I am very, very happy that we have it,” 18-20, “Paradiso III,” 132).
44 Korbacher, “I am very, very happy that we have it,” 18. In 1887 Josef Strzygowski realized that the drawings belonged with those in Berlin and, in that same year, published them as a supplement to the Berlin’s facsimile edition (Altcappenberg, “‘per essere persona sofistica,’” 21).
Botticelli.\textsuperscript{45} Lippmann’s analysis, though brief, was the first published critical analysis and appraisal of the Dante drawings.\textsuperscript{46} This, combined with the tenuous response to Botticelli at the turn of the century, founded the artist’s modern reception, notably in regards to his biography.

Lippmann first describes Botticelli as “one of the most attractive” artists in European galleries, a generalization likely due in part to the tourism and intrigue inspired by his newly exhibited pictures. He quickly clarifies that Botticelli, however, when compared to the more illustrious and canonical Renaissance artists, such as Leonardo da Vinci, Michelangelo, and Raphael, lacked the ability to “dazzle and entrance, by force the splendor of his genius, the power and majesty of his conceptions.”\textsuperscript{47} Lippmann furthers this critique with a supposed quote by da Vinci shaming Botticelli for his inability to accurately depict landscape: “even when he [Botticelli] introduced a landscape background, he treated it as a mere accessory, and subordinated it entirely to the development of his figures, and their characterization.”\textsuperscript{48}

The verity of this quote notwithstanding, the fact that Lippmann included it in his essay of Botticelli affirms a prejudice against the artist, compared to his more acclaimed successors. Lippmann then clarifies that Botticelli’s charm instead lies in

\textsuperscript{45} Volume was originally published in 1885, but the commentary was added in 1887.

\textsuperscript{46} The drawings are thought to have been first mentioned in 1854 by Gustav Friedrich Waagen in his \textit{Treasures of Art in Great Britain}. See Waagen, Gustav Friedrich, Elizabeth Rigby Eastlake, and Algernon Graves. \textit{Treasures of Art in Great Britain: Being an Account of the Chief Collections of Paintings, Drawings, Sculptures, Illuminated Mss., &c.} (London, J. Murray, 1854). This publication was not directly made public before 1887, however, and was likely only known internally within the Berlin State Museums. See Altcappenberg, “’per essere persona sofistica,’” 20.

\textsuperscript{47} Friedrich Lippmann, \textit{Drawings by Sandro Botticelli for Dante’s Divina Commedia: Reduced Facsimiles after the Originals in the Royal Museum, Berlin, and in the Vatican Library} (London: Lawrence and Bullen, 1896).

\textsuperscript{48} Ibid, 6.
his “sweet and delicate play of fancy” with “depths of quaint and sympathetic emotion” and that his artistic process was predicated on rendering “decorative accessories” of little consequence.⁴⁹ These assertions suggest an agenda to diminish Botticelli’s achievements in light of the arguably more prolific artists that followed.

Lippmann acknowledges Botticelli’s skill in *disegno*, noting his “sharpness and decision of outline;” however, he also downplays the artist’s technical facility, describing certain figures and motifs as mere “ornamentation.”⁵⁰ While he describes Botticelli’s Madonnas and angels as “distinct” and possessing “very striking individuality,” he especially mentions that they are apart from “any high standard of ideal beauty.”⁵¹ He notes their “peculiarities” and the fact that the artist concerned himself less with the human form as an object for learned anatomical demonstration and detail, than as a medium for the expression of character and feeling. This is in direct contrast to cinquecento style (largely after Michelangelo), which used anatomical models and studies to depict accurately and scientifically the human form. Introducing this contrast reinforces the notion that Botticelli’s style and practice was antiquated, even to his immediate successors.

Lippmann makes this distinction explicit in his discussion of the Sistine Chapel frescoes. He notes that when Botticelli’s frescoes are compared to those of Michelangelo one cannot help but admit that even their “finest qualities fall short,” despite what he defines as their “many passages of great beauty.”⁵² In describing Botticelli’s focus on painting and drawing, Lippmann notes the artist’s shortcomings

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⁴⁹ Lippmann, *Drawings by Sandro Botticelli for Dante’s Divina Commedia*, 1, 3.
⁵⁰ Ibid, 3.
⁵¹ Ibid, 5.
⁵² Ibid, 9.
as a sculptor. In doing so, he minimizes Botticelli’s abilities when contrasted to those of Michelangelo, who mastered all three media. Despite the essay’s brevity, Lippmann’s prose and anecdotal vignettes, largely critical of Botticelli, moved the problematic construction of the artist, incepted in the sixteenth-century, into scholarship of the nineteenth and twentieth-centuries that followed.

Following Lippmann, art historian Hermann Ulmann wrote the first Botticelli monograph, published in 1893. That same year Aby Warburg’s Strasbourg dissertation on Primavera and Birth of Venus persuasively situated Botticelli in the intellectual context of Florentine Renaissance humanism. However, although Warburg’s study catalyzed subsequent scholarship, it concluded that Botticelli was an artist and man of malleable and weak character, and did little to address the artworks as objects per se, highlighting them instead as evidence “of the anxieties and sublimations of a group of intellectuals.” Such trajectory produced substantial research in the 1950s at the Warburg Institute. Subsequent work by Ernst H. Gombrich and Edgar Wind largely continued along these lines, situating Botticelli’s paintings with the context of Florentine Neoplatonism.

Ronald Lightbrown’s 1978 monograph was thus crucial to addressing the technical and formal properties of Botticelli’s painted works, the subject of which had largely been overlooked. More recently, Hans Körner’s 2006 monograph, Botticelli,
breaks from the canon (if only briefly), to explore artworks largely omitted from modern scholarship. Despite these recent developments, very little work has been done to understand the artist’s graphic works, a still unchartered territory.

Of this scholarship, technical study of the Dante series is lacking, circumstances no doubt exacerbated by the dispersion of this corpus of drawings specifically, and the difficulties posed by conservation issues prohibiting intensive study of the drawings “in the flesh.” Doris Oltrogge, Robert Fuchs, and Oliver Han have started to understand these issues in the past two decades. Ulrich Rehm’s essay “Character Assassination with Consequences: The Life of Botticelli According to Giorgio Vasari and Modern Art Historiography” addresses the paucity of scholarship on the artist’s draftsmanship, thereby asserting the need for further scholarship, as linked to biography. His own analysis, however, still subjugates the artist’s graphic works secondary to his painted oeuvre.

Rehm, in his critique of Vasari’s version of Renaissance, artistic events, proposes, “The more one becomes aware just how much Botticelli’s image (…) has been shaped by Vasari’s literary libel and his casting of the painter in the role of crank (…) the less one is surprised by the serious lacunae in Botticelli scholarship.” As Rehm suggests, there is a tendency in art historical scholarship to accept Vasari’s biographies as fact. Though he himself does not pursue the topic in depth, critical readings of the biographer have been frequent in art historical scholarship, the most thorough research of recent decades being that of Patricia Lee Rubin who, in 1995,

58 Hans Körner *Botticelli* (Köln: DuMont, 2006).
59 Doris Oltrogge, Robert Fuchs and Oliver Han, “Finito and Non finito: Drawing and Painting Techniques in Botticelli’s Divine Comedy,” 334-342.
60 Rehm, “Character Assassination with Consequences,” 131-141.
61 Ibid, 132.
sought to study the “motivations and consequences” of Vasari’s biographies and model of historical writing. Vasari criticizes Botticelli in his biography because he was among one of the earlier, “imperfect” artists of the generation before Michelangelo, derived from the three-part construction I enumerated above, and, more importantly, because Botticelli did not fit within Vasari’s larger evolutionary, artistic scaffold, perfectly personified by Michelangelo. Along these lines, Rubin’s construction simultaneously explains these motives with the argument that this intentional structure argues for a linear, generative method of artistic production in the Renaissance artist.

Thanks to Vasari, unconsciously ingrained in the construct of artistic biography are narratives of stylistic evolution, necessitating improved change in style over time. This argument allows us to bracket Vasari’s construct of Botticelli’s artistic process, detailed in my close reading, in a way that breaks from the nineteenth-century appraisal of Botticelli that mimicked Vasari’s criticisms. Botticelli’s approach to drawing evolves as he moves through the Dante series, showing an eccentric scattering of style that was most unusual, particularly when coupled with the Vasarian ideal. In this way, Vasari’s program for understanding artists does not really accommodate drawings like these. Their idiosyncratic qualities evincing nonlinear artistic process can be explored by examining the material and compositional structure of the Dante drawings, the strands of which I endeavor to separate in section two. Through this approach, I will shed new light on Botticelli’s studio practices, and demonstrate the alternative view of artistic approach to and

production of drawing that fails to conform to Vasari’s conception of the ideal Renaissance artist.
PART II

A Proposed Method of Studying the Dante Drawings
2.1

BOTTICELLI AS A DRAFTSMAN

Part I offered a critical reconsideration of scholarship that follows Vasari’s narrative characterizing Botticelli as a flawed draftsman. The Dante drawings are precariously positioned in current art historical scholarship because they call into question Vasari’s version of stylistic history, which imposes a linear development on the artistic process, so as to have a clear beginning and end, and structures a narrative generative framework that models the emergence of the autonomous art object. Art historical scholarship that harbors a similar Vasarian bias is thus not necessarily conducive to studying certain types of art objects per se, particularly drawings, thereby perpetuating an inherited predisposition against the Dante series, which does not conform to the model of the autonomous art object, and against the artist’s oeuvre, which does not assimilate into Vasari’s framework.

Besides the Dante series, only twelve surviving drawings can be securely attributed to the hand of the artist, including Allegory of Abundance, Saint Thomas, and Saint John the Baptist, with a limited additional few purported to be from his studio.64 The comparative wealth of documented paintings by Botticelli, and the many attributed to his workshop, together with the Vasarian tendency to privilege finished paintings over incomplete drawings, have led scholars to think of him first and foremost as a painter, a perception that the incredible volume of work and skill

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64 See Aldo Bertini, Drawings by Botticelli, transl. by Florence H. Phillips. First edition (New York: Dover Publications, 1968). Though significantly outdated, this volume has images of all drawings once attributed to Botticelli, as opposed to the most well known images that are included in the majority of Botticelli monographs of the last few decades.
presented in the Dante drawings encourages us to reconsider.\textsuperscript{65} Taken together, the Dante drawings suggest that the possibility to have all one hundred sheets available simultaneously may have triggered Botticelli’s explosive stylistic evolution. The drawings’ incomplete state makes this change visible and traceable throughout the series. This kind of artistic exploration could not be done in the production of a painting, but rather only with an opportunity that this particular project provided. Using the unique information provided by this series, I group the drawings according to materials and compositional strategies. These two technical, methodological practices can offer insight into Botticelli’s process.\textsuperscript{66} The approach to artistic process that my technical analysis suggests undertakes to discredit the narrative scaffold inherited from Vasari’s teleology.

Art historian Maryan W. Ainsworth observed in 1989 that historically, in the study of Renaissance European graphic media, “given the considerable lack of data –

\textsuperscript{65} It is tempting to compare and qualify Botticelli’s skill and style as a draftsman to his accomplishments as a painter. My analysis, however, seeks to do away with this approach and re-evaluate Botticelli through his drawings’ — the Dante series in particular — technical and physical attributes.

\textsuperscript{66} Pisanello (1395-1455) was an artist of the Italian quattrocento and relatively contemporaneous with Botticelli. He is quite well known for his sketchbooks and drawings on vellum, executed in metalpoint, ink, and watercolor. This positions Botticelli’s use of vellum, metalpoint, and ink within the Renaissance canon as opposed to strictly within medieval tradition. Pisanello’s work, closely following Botticelli’s in material, also brings into question the role of the workshop in Botticelli’s Dante drawings and whether the evolutionary model we see in the drawings is a byproduct of workshop production. This is a valid counterpoint, but not one without complications. Dozens of Pisanello’s vellum drawings survive, along with several vellum sketchpads and model-books. He is known to have employed his assistants in these drawings. The drawings in which scholars have argued for multiple hands, however, are not fine commissions and instead are very often “practice sheets” used for studio teaching. Given the paucity of drawings by Botticelli there is no precedent that the artist employed his workshop in the production of his drawings. Further, given that this was a Medici commission it is unlikely that Botticelli would have allowed an assistant to do considerable work, except for, perhaps, outlining pre-drawn shapes, though there is no scholarship affirming this kind of involvement. My analysis to follow (2.3.1) explores Botticelli’s use of ink, notably dark ink, as a tool for figuring aspects of drawing, no doubt the role of the master and not the assistant. For further reading see Luke Syson, Dillian Gordon, and Susanna Avery-Quash, “Artistic Individuality and the Workshop Tradition” in \textit{Pisanello: Painter to the Renaissance Court} (London: National Gallery, 2001), 190-235 and Doris Oltrogge, Robert Fuchs, and Oliver Han, “\textit{Finito and Non finito, Drawing and Painting Techniques in Botticelli’s Divine Comedy},” 334-342.
visual and textual – many issues relating to patterns of artistic practice have not been
dealt with.” Her implied methodological call to action remains largely unanswered.
Botticelli’s Dante drawings, for their number and diversity, represent the ideal case
study to explore questions of how, in the study of Italian Renaissance graphic media,
visual data gathering can derive patterns that relate to artistic process. By examining
the drawings, here ninety in total, and quantifying their constituent traces as data, I
group them and extract particular patterns revealing of material and technique.

The Inferno drawings, the most detailed and codified of the three canticles, boast crowded compositions populated with smaller figures executed in quick
gestural sketches. The Purgatorio composition closely follows that of Inferno in its
complexity of subject matter and populated landscapes, though the scenes are more
ethereal. In general, Purgatorio represents a slight change to the figures of Dante and
Virgil, demonstrating quickening movement and increased complexity of form and
subject matter. The drapery, in Inferno suggested with no more than a few lines,
becomes more descriptive in Paradiso. The Paradiso drawings depict the figures of
Dante and Beatrice, now large in scale, in the ethereal spheres. The agitated, and
calligraphic draperies of these figures espouse self-generated movement, and more
closely resemble the artist’s painted works.

The drawings are most heavily studied as illustrations for the Commedia.
Scholars note the drawings’ ability to realize with “miraculous fullness” the
spirituality and mysticism of the poem through its dramatic representations of Dante’s

67 Maryan W. Ainsworth, “Northern Renaissance Drawings and Underdrawings: A Proposed Method
68 The use of ninety drawings, as opposed to the full ninety-two, will be explained on page 37.
striking metaphors and intense allegories. The artist’s ability to describe the character’s movements and locational settings, with little deviation from the story in Dante’s text, causes many scholars to confuse the poet’s plotline with the artist’s production timeline. In this way, some conflate the written narrative progression of the three canticles with Botticelli’s presumed working progress in chronological order, following the poem.

Close study of the drawings, however, taking into account object-based evidence of their creation, calls into question such suppositions. Two drawings, Canto XXX of Inferno and Canto VIII of the Purgatorio, are simply sketched in. In many drawings some parts are inked in while the rest is left as a sketch, and in several drawings for the Paradiso the figures of Dante and Beatrice are inked, but there is no such treatment of other motifs. Four of the drawings for Inferno, including the Chart

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70 This is, in large part, a result of nineteenth-century scholarship, which supposed, by linking Botticelli’s creation of the drawings to the textual narrative, that, in creating the drawings, the artist experienced the same kind of spiritual journey that the character of Dante in the Commedia narrative. Lippmann, in large part, originated this mentality in stating that the drawings had a “perceptible deepening of spiritual intensity in the compositions as they follow the narrative,” so as to suggest some kind of evolution of the artist only as it pertained to the narrative (20). This viewpoint is tentatively held in the Royal Academy catalogue’s entry for Paradiso XXXIII, the illustration for which was either lost or never begun. Here Altcappenberg states if Botticelli, having journeyed through the complex texts in the act of illustrating, “took his author literally, then, after Dante’s remarks in Canto XXX on the impossibility of representing perfection, there never could have been an image of this canto, which dissolves, with its narrator, into utter forgetfulness of self” (288). See Altcappenberg, “Paradiso XXXIII,” in Sandro Botticelli: The Drawings for Dante’s Divine Comedy, 288. This viewpoint builds on that of Lippmann in suggesting that the artist had a spiritual journey that coincided with the Commedia narrative; when Botticelli got to the last sheet, as suggested by Altcappenberg, he could not bring himself to depict its narrative and spiritual complexity. This supposition, though still suggested, is better qualified in the 2016 Courtauld exhibition catalogue: [whether] “the artist intended to give the viewer Dante’s perspective must ultimately remain a matter for speculation” (148). The author, however, still stresses the end of Dante’s journey as one that is “beyond all images capable of imagination or representation,” echoing the sentiments of Lippmann and Altcappenberg that seems to link the inexplicable progression and spiritual end of Dante’s journey to that of Botticelli’s artistic process. See Korbacher, “Paradiso XXXI,” in Botticelli and Treasures from the Hamilton Collection, 148.
of Hell, have been partly or almost fully colored. This material evidence across canticles strongly suggests that Botticelli intended every drawing be fully finished, with all contour lines colored. This evidence further proposes, when taken together with the drawings’ differences in style, that Botticelli worked on them slowly and intermittently over a long period of time. This section’s scrutiny of the drawings as material traces, by extracting and examining their different layers and compositional elements, seeks to dissect Botticelli’s haphazard process (more circular vortex than linear vector), and refute Vasari’s model of a linear, evolutionary artistic process.

The following case studies aim to recreate, in part, Botticelli’s process, primarily in regards to composition, and working method.

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71 Cantos X, XV, and XVII in *Inferno*. 

According to Lippmann, Lorenzo di Pierofrancesco Medici provided Botticelli with just over one hundred in quality ovine vellum, sized approx. 325 mm high and 475 mm wide. They would have been provided as a block of pages, all uniform in size, the cost of which would have been substantial. Vellum (a fine variation of parchment) was an expensive material to produce because the animal skin (commonly calf, sheep, or goat) required substantial preparation to make a suitable substrate for drawing. In its manufacture the hide was washed several times, treated with lime, the hair of the animal removed, and then stretched and scraped to remove the impurities. Finally it was rubbed with chalk and pumice to smooth the surface. It was most often coated with a ground, composed of powdered animal bone, and burnished.

Vellum reached the height of its popularity during the Middle Ages when it was used as the substrate for diverse texts and images. The popularity of this material declined during the fifteenth-century due to an increasing availability of paper, a trend facilitated by the advent of the printing press with movable type, imported to Italy from Germany in 1465. Artists, who increasingly used paper, were either reimbursed for their materials or given the materials directly from patrons, but, more often than not, purchased themselves sketchbook paper for preparatory drawing. Though paper production increased and the material became cheaper than vellum,

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72 Korbacher, “I am very, very happy that we have it,” 19.
74 Ibid, 38.
paper was still a relatively expensive commodity, and artists often reused the verso of the sheet, a practice seen extensively in the sketches of Michelangelo.

As a result of vellum’s greater relative cost in the Renaissance, it was used for specific kinds of drawings. These included cases when durability was paramount, in codices such as the Dante project, or in studio model-books or compendia of architectural studies meant for re-use, such as Francesco di Giorgio’s instructional drawings. Vellum was also used for presentation drawings intended to impress, such as Pisanello’s Three Men from 1433, and Jacopo Bellini’s Louvre drawing album, dated from the mid 1400s.  

To put into better perspective the relative costs of paper versus parchment, a 1465 inventory of a Florentine stationer shows the price differential between paper and vellum. Five-hundred sheets of Bolognese papers, measuring roughly 350x500mm were valued at 110 soldi (0.22 soldi for a single sheet) versus 3 soldi (the price of over fourteen pieces of paper) for a single leaf of burnished goat vellum of roughly the same dimensions. This price difference economically underscores

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For the insight these kinds of artists offer into the speculative function and theoretical significance of the Dante drawings, see Note 66 for a discussion of Pisanello. Also see Luke Syson, Dillian Gordon, and Susanna Avery-Quash, Pisanello: Painter to the Renaissance Court and Bernhard Degenhart and Annegret Schmitt, Jacopo Bellini, the Louvre Album of Drawings (New York: G. Braziller, 1984).

76 Formats and sizes of paper made in Bologna, a major place for manufacture, were: imperial (51x74.1cm) reale (45.2x61.7 cm), mezzana (35.2x50.3cm) and rezzuta (51x74.1cm). These measurements and corresponding terminologies are known from a record of them carved into a stone slab from late fourteenth to early fifteenth-century originally located in the Societa degli Speziale, the trade guild to which paper makers belonged. See Hugo Chapman and Marzia Faietti, “Introduction: The Technique of Italian Renaissance Drawings,” 36.
the Dante drawings’ status as an exceptional project, one possible only because of the patron’s prestige and considerable wealth.\textsuperscript{77}

For this project, the text of the canto corresponding to the drawing on the preceding sheet was first written across the width of the rough, or “hair,” side of the vellum sheet in six columns. Botticelli’s drawings, each executed on single sheets of parchment, were intended to be viewed as horizontal oblongs. The final product, should it have been bound, would open upward with the drawing on the upper leaf and the corresponding text on the lower leaf (see figure 2 for a facsimile simulation of this procedure). With the exception of the \textit{Chart of Hell}, drawn on the rough recto (“hair” side) of the Canto I sheet, which would have opened the illustration set, all the illustrations are executed on the smooth (“flesh”) side of the parchment.\textsuperscript{78}

Metalpoint, the first tool employed in the design process, consisted of a sharpened stick of soft metal, most often silver or a silver-alloy which left a mark when applied to a drawing surface by literally depositing a minute fraction of the metal. As previously noted, the substrate, whether vellum or paper, would first be prepared with a calcimined bone, so as to ensure a rough surface that the metal shavings could successfully latch onto. Though quite similar in effect to graphite or charcoal, metalpoint was a temperamental and challenging medium that left very little margin for error. Once a line had been drawn the only means of erasure were to smudge it with a wet cloth, thereby disrupting the evenness of the ground, or to apply a fresh new ground on top of the marks in question, voiding the completed work on the rest

\textsuperscript{77} Lightbrown says that Botticelli did not make these for a commission by the Medici, but rather as an artistic exercise for the artist (see Note 3). But, the pricing alone of the vellum sheets, given their size and volume complicates this hypothesis.

\textsuperscript{78} Altcappenberg, “‘per essere persona sofistica’ Botticelli’s Drawings for the Divine Comedy,” 19.
of the sheet. The limited tonal range of metalpoint, usually a fixed neutral gray, meant that shading could only be achieved through the density of hatch marks, where more marks simulated a darker tone.79 While metalpoint has been used from antiquity, it was used predominately as a writing stylus and was not introduced by artists as a fine drawing medium until the late fourteenth-century. It began to see a decline shortly after 1500, marking roughly 1385 to 1500 as an Early Renaissance exploration and popularization of the material.80

That said, it is held by many scholars, upon first analysis, that Botticelli’s drawings follow medieval precedents of illumination, in terms of both materials and iconography. While I maintain that Botticelli’s drawings are rightly situated in the Renaissance and within that respective mentality, and therefore in no way reminiscent of Vasari’s first generation of artists, materially speaking Botticelli drew, in part, on medieval antecedents.81 An illuminator’s materials also consisted of a vellum substrate, onto which the text would have already been written by a scribe, and drawing media, consisting almost always of inks.82 The recipes for medieval inks varied, but the most common types were carbon inks, composed of charcoal or lamp-

81 See Note 68 for Renaissance use of medieval materials.
82 It is commonly accepted by scholars that Dante’s Divina Commedia was begun in roughly 1307 and completed shortly before the author’s death in 1321. Scribes were quick to duplicate the text following its completion and, while there is no extant manuscript in the author’s hand, over six-hundred manuscripts are known today. Surprisingly, of this large collection, only a fraction are illustrated. According to Julia Schewski, three different types of illustrated Commedia manuscripts can be distinguished: those in which the first initial at the beginning of each cantiche are illuminated, those in which each canto begins with its own decorated page, and those in which in canto is illustrated with at least one image. The latter category offers two different types of illumination: color-painted miniatures framed within the text itself, and unframed pen drawings, often shaded with ink wash or watercolor, executed in the margins. See Julia Schewski, “‘Illuminated Manuscripts of the Divine Comedy Botticelli and Dante Illustration in the 14th and 15th Centuries,’ Botticelli’s Drawings for the Divine Comedy” in Sandro Botticelli: The Drawings for Dante’s Divine Comedy. (London: New York: Royal Academy of Arts; Distributed in the U.S. and Canada by H.N. Abrams, 2000), 312-15.
black mixed with gum, and metal-gall ink, most often iron, made by mixing a solution of tannic acids with ferrous sulfate and gum. The ink’s black pigment is due to the ingredient’s chemical reaction. Carbon ink was a more antiquated medium, prevalent until the twelfth-century, while gall inks, though used intermittently in previous centuries, did not rise to popularity until the early twelfth-century. Botticelli’s method of illumination in many ways was an attempt to adapt his predecessors’ methods in order to achieve the results obtained by medieval illuminators. Though Botticelli obviously had access to these medieval prototypes and, from medieval tradition, borrowed the general narrative structure and typology and, most notably, the use of similar media, his use of medieval design is indeed modified by a larger-scaled composition and acute, Renaissance understandings of human anatomy. Botticelli employed two different types of inks: a light brown vegetable ink and a darker brown iron-gall ink. In kind with his painting process, Botticelli would likely have employed assistants to mix his inks using crushed gall and chemical solutions, and it is unlikely that the artist did so himself.

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84 There are elements in the Dante drawings that show Botticelli’s familiarity with Florentine manuscript illustrations of the Commedia and with the monumental fresco by Nardo di Cione, painted around 1357, that depicts Hell according to the structure and topography of Dante’s Inferno. Representations of rocky circles of Inferno and Purgatorio, even of the spheres of Paradiso, all have earlier precedents: the figures of devils and Lucifer are of traditional, iconographical type and his figure of Dante derives from Domenico di Michelino’s well-known fresco of 1465, painted in the Duomo of Florence. Virgil’s canonical hat also derives from tradition. Compositional motifs, notably from Inferno, echo the miniatures from earlier manuscripts (Lightbrown, “Botticelli as a Draftsman and as Master of a Workshop,” 294). For further discussion of Botticelli’s use of medieval prototypes in his construction of the Inferno canticle see Barbara J. Watts, “Sandro Botticelli’s Drawings for Dante’s ‘Inferno’: Narrative Structure, Topography, and Manuscript Design.” *Artibus et Historiae* 16, no. 32 (1995): 163–201.
85 Altenberg, “‘per essere persona sofistica’ Botticelli’s Drawings for the Divine Comedy,” 19.
consisting of a feather quill whose tip was sharpened to a point and then dipped into ink, was the favored drawing instrument throughout the fifteenth and sixteenth-centuries. The artist made preliminary notations using metalpoint that he then clarified and corrected using ink.

What has been significantly lacking in discussions of the Dante drawings is the artist’s employment of these different inks in relation to his processes of composition. The scholarship that has been done precisely conforms to the general trend of Botticelli historiography, and seeks to tie the artist’s dual inking methods to the iconographical significance of the figures depicted, purporting Botticelli’s intentional visualization of the narrative content. I propose that the connoisseurship of these drawings can best be informed by analysis of their ink pigments, information that provides a fresh look at how Botticelli worked. In the following analysis I will explore some ways in which Botticelli’s idiosyncratic use of inks can bring his artistic practice into question while simultaneously working to clarify the form and function of each stage of the artist’s process.

I will begin by examining the drawings in quantitative terms to suggest certain patterns in Botticelli’s working method, spanning the rough decade in which these drawings are posited to have been completed. Next, I will analyze three of Botticelli’s drawings, one from each canticle, that greatly exhibit the artist’s evolving, cross-canticle working methods and help to ascertain his ink techniques in relation to his approach to composition.

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88 For this kind of argument see Korbacher, “‘I am very, very happy that we have it,’” 25.
89 See Note 1 for a discussion of scholarly debates on dating the drawings.
To investigate further Botticelli’s compositional strategies, a subsequent trio of case studies focus on his use in certain drawings of a compass instrument, a practice that left visible marks on the vellum. The particular construction of the *Paradiso* series better outlines their production than that of the other two canticles. Upon close examination and scrutiny, under the current photographic imaging and conditions, outlined in the Appendix, some sheets, such as *Paradiso VIII* and *XXII*, bear these small puncture marks from the pressure of a compass point. It was not until the eighteenth-century that one of the legs of compasses was modified to take a pen or pencil, affirming that Botticelli used a compass with two sharp points that he would scratch into the vellum. In addition to the puncture mark in the center of the circles, also inscribed on the vellum, visible on some sheets and not others, is the preliminary incision of the circle scraped by the second end of the compass. This not only confirms what instruments Botticelli used, but also leaves evidence of the work’s manufacture and emphasizes their “in-process” state.
DATA COLLECTION AND DIGITAL MEDIA APPLICATION

Traditional art historical research of objects is most often pursued and presented within historical and stylistic contexts. Analyses are often organized according to genre, form, subject matter, and style, with equal consideration given to the artist and his social and cultural landscape. Much of my analysis strives to do just this. The material conditions of the artworks’ production, however, also invite larger questions that cannot be revealed through qualitative research alone. Given the large quantity of drawings in the Dante series and the patterns they suggest, as indicated above, complementary forms of analysis, such as data collection and modeling, encourage further research. Data collection enriches our understanding of the entire series of drawings and allows us to cast a wider net in looking for patterns while visualization strategies, through modeling and digitization techniques, illustrate change over time.\(^90\) The implications of interdisciplinary digital humanities on the field of art history are great and I hope that applying them to the Dante drawings will encourage the burgeoning field to delve deeper into its collaboration with the study of the graphic arts. For the purposes of this analysis alone, these techniques found my study of the drawings as a cohesive set and allow me to extract a sense of their sequence and shape otherwise imperceptible. I will first outline the processes of data collection, and quantitative analysis, used to categorize the different inks, followed by my strategies of digital visualization to discern elements of composition.

Excluded in this study are the drawings that are colored – *Inferno XV, XVIII* and the *Chart of Hell* – as well as *Paradiso XXXI*, which is a blank sheet. The former three are excluded because they demonstrate a higher state of finish, and are, for the most part, colored. The particular use of metalpoint and ink, integral to my analysis, could there not be satisfactorily extracted from these sheets. *Inferno XXXIV.2*, the double sheet rendering of Lucifer, counts as two sheets. The sample is therefore a set of ninety sheets.

We cannot separate the layers visually. High enough quality images of the drawings are not available within the public domain (see explanation in the Appendix), and physically separating the layers would be challenging even with these resources. Instead we must understand and define the separate layers by clustering them into different stages of the artist’s procedure. We cannot, down to the very drawing, outline an exact order, but, rather by isolating the inks, we can better suggest and understand his process. I have divided the different drawn layers into four distinct types, or categories: “medium to heavy metalpoint,” “faint metalpoint,” “dark brown ink,” and “light brown ink.” This is no doubt simplifying Botticelli’s draftsmanship, what I have previously argued as a complex process. Simplifying it into a few layers, however, allows us to make sense of his general process over the course of the series as a whole.

My method of categorizing these processes, as I will detail shortly, is illustrated in the data table below. There is evidence of ten variant methods within the series: (1) heavy metalpoint by itself, (2) heavy metalpoint with dark ink overlay, (3) heavy metalpoint with light ink overlay, (4) heavy metalpoint with both dark and light
ink overlay, (5) faint metalpoint by itself, (6) faint metalpoint with dark ink overlay, (7) faint metalpoint with light ink overlay, (8) faint metalpoint with both dark and light ink overlay, (9) dark ink by itself, and finally (10) light ink by itself. Each variation is numbered under the moniker “Co-occurrence of Material and Method,” as enumerated in Table 1, and groups the drawings according to their different methods of production. These numbers, in the right-most column of Table 2, when numerically organized, show the dispersion of the methods and materials across each canticle.

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<th>Light Ink</th>
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Table 1
This data table shows each of the ten variant methods sorted and numbered according to subgroups, defined as “co-occurrence of materials and method.”

91 The “Co-occurrence of Material and Method”, as I have labeled it, is called the “dummy variable” in statistics and is used in regression analysis to represent subgroups in a data sample. They are commonly used as devices with which to sort data.
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<th>(MP) Faint-None</th>
<th>(INK) Dark Brown</th>
<th>(INK) Light Brown</th>
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Table 2: This data table shows the entire set of ninety drawings in question. They are labeled according to their use of metalpoint and ink, and numbered according to the guide presented in Table 1. My working table, used to derive my analysis, functioned as an excel database and allowed me to sort the drawings according to different properties and materials. The data presented here is sorted by the “material and method co-occurrence” number, which reveals the dispersion of these method types throughout all three canticles and their respective cantos.

The first of the four categories is “medium to heavy metalpoint,” defined in terms of the refined quality of the forms and figures that are rendered, and in many cases reworked, in multiple construction lines. The highly defined contours read as figures with precise physiognomy, rather than gestural forms (see figure 3 for a visual explanation of this method). The second category, in direct contrast to the first, is “faint metalpoint,” the marks of which read more as gestural shapes. The metalpoint is therefore used merely as a placeholder, meant to indicate the artist’s planned figural placement, perhaps with suggestions of motion and mannerism (see figure 4 for a visual explanation of this method). A direct comparison can be made between these two categories, faint metalpoint and medium to heavy metalpoint. Why Botticelli heavily rendered some drawings and their respective figures in metalpoint is therefore brought into question. It can be inferred that the drawings with heavy metalpoint were either subjects that he had particular difficulty with, or that better held his interest. Either way, it can be confirmed that he spent longer on these drawings than the others. This observation does not situate this cluster of drawings within a chronology and does not tell us which he did first, but it does tell us how the artist worked.
The next stage in the process was ink. I have characterized the two inks as light and dark, as chemically confirmed in most recent conservation studies. The light ink is the most commonly used, meaning most of the drawings contain at least some light colored ink. Eighty-four of the drawings contain, in some measure, elements of the lighter ink. The amount with which Botticelli used light ink suggests that this was his first step in the inking process. The fact that the majority of his drawings employ a dark ink overlapping his light counterpart effectively confirms this. Thirty-seven of the drawings contain elements of the dark ink, which, presumably, given the different layering of the inks, was the final step. These drawings therefore seem to represent a later stage in the artist’s process. Fifty-eight of the sheets employ medium to heavy metalpoint, while light metalpoint occupies only thirty sheets. Quantitatively, the method that appears with greater frequency is heavy metalpoint and light ink, with heavy metalpoint and both inks and faint metalpoint and light ink as a close second and third, respectively.

There are thirty-three drawings that share both dark and light inks. They deviate in finish and the extent to which the artist used the two pigments. In some drawings, first employed in light ink, the artist fully traced the figures and composition in dark ink. In others, Botticelli just outlined portions of the light ink in the dark tone. The intermittent use of dark ink suggests how he worked on the page and approached composition. If we examine Paradiso III, dually-inked, we can observe that the artist layered the dark ink over the light ink, beginning at the head of the sheet before terminating its use in the center of the sheet (see figures 5 and 6).

For this kind of study see Doris Oltrogge, Robert Fuchs and Oliver Han, “Finito and Non finito: Drawing and Painting Techniques in Botticelli’s Divine Comedy,” 334-342. This is one of the only sources on the conservation of the drawings available within the public domain.
This kind of application, revealed in the data categorization of both inks, demonstrates irregular or in process ink application (see Table 1&2.) The use of metalpoint, integral to the data categorization, further informs the artist’s use of inks. It follows that a bare or vague metalpoint underdrawing would necessitate more planning and confidence in ink handling. The use of metalpoint then directly correlates to the artist’s handling of ink.

These processes, as detailed in the data table above, have been converted to a diagram to show their frequency within the series, thereby visually illustrating the trend of processes across the series (see figure 7 for bar graph and explanation). Using this quantitative information, connections can then be inferred as they relate to these different clusters. For example, in the drawings for *Paradiso VIII* and *Paradiso XV*, both of which are executed only in the lighter ink, there are splotches of dark pigmented ink. This less informs his artistic process, for example how he approached a drawing, but rather clarifies what his workstation may have looked like. This kind of information suggests that Botticelli had many sheets all together at his workstation and, in the process of consulting these different sheets in the creation of a new one, accidentally dribbled dark ink on the sheets still only inked in light brown. Though still large in number, this information links these two light inked drawings to the thirty-seven drawings that have dark ink, suggesting that he could have consulted these two, specific light-inked drawings when working on the drawings with dark ink. The implications of these ink splotches represent a perhaps more complex type of drawing and are not referenced explicitly in the data table. Though they are not integral to the close analyses that follow, I briefly mention them here to suggest the
sheer complexity of Botticelli’s process and the different avenues for quantitative research that this close study grounds and encourages.

Of the many possible categorizations of drawings invited by the quantitative representation of the series as a cumulative body, as I have presented it, the artist’s use of dark ink, in a trio of distinctive sheets, comprises the first of the following cross-canticle analyses. My close analysis of compositional elements, deriving theoretically from my quantification of inks, employs the Paradiso canticle. In order to visualize discernible patterns throughout the sample, I created a visual and interactive database of the Paradiso canticle, comprised of the twenty-one sheets that bear the circular design. Using Photoshop, a digital media application, and images from Artstor, I was able to isolate the drawn lines. The steps required to do so were to first turn the image file into black and white through the ‘greyscale’ application. Then I altered the exposure and the threshold, to best achieve maximum contrast, essentially simplifying the lines and rendering them more graphic. I varied the fill color of each drawing’s contour lines so as to differentiate them. Altering the opacity of each drawing allowed me to virtually layer them and compare their compositional elements. This then enabled me to cluster the drawings according to shared compositional elements, specifically as related to the artist’s use of a compass. The complete set of manipulated drawings, from which I extracted my case studies, is represented in figure 8.

It would appear that many of the drawings, at some point in their cryptic provenance, were slightly trimmed along their perimeter. For the purposes of

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93 Photoshop's ‘threshold effect’ adjusts images by converting all colors and shades of grey to either black or white, creating a stark, high-contrast image.
meticulous study, instead of aligning the *Paradiso* folios according to sheet edge, I did so according to the artist’s faintly scribed border notations. This alteration allows us to achieve the highest degree of accuracy. This method revealed three clusters, a total of ten drawings, of note that will constitute the second of the following cross-canticle case studies.
2.3.1

CASE STUDY 1: Dark Ink as Proof of Cross-series Execution

Despite their different states of finish, the Dante drawings present a group of homogeneous size and format, bearing the same material traces. These surviving traces indicate relatively clearly a typical working methodology, in which Botticelli first used gestural metalpoint, then light brown ink, and finally outlined his contours in darker brown ink. The visual-material data and corresponding graphs quantitatively show the varying stages in this normative process, and the artist’s use of the three media and four techniques. Dark ink, employed most sparingly, appears to have been a third layer overlaid over the lighter ink, signaling a more “finished” stage. This can be explained quantitatively in that most of the drawings that reached this particular stage are extensively worked and the composition more highly developed.

The idiosyncratic, atypical use of the ink present in Paradiso II, Purgatorio III, and Inferno XXVII will be the focus of my formal examination. The abrupt shift in light to dark ink, without a light ink underdrawing, is conspicuous in Paradiso II and Purgatorio III, and perceptible in Inferno XXVII. The tonal contrast and the change in materials signaled by this shift indicate that the artist likely paused mid-figure, suggesting that he also stopped mid-thought. This is perhaps what makes these three drawings particularly interesting. Instead of following the typical process, the artist used a tool for finish, the dark ink, as a tool for figuring the process of artistic creation.

Close study, both quantitative and qualitative, of the underdrawings reveals that he did not always heavily render the figures with metalpoint construction lines. Rather, sometimes the lines are just suggestions of form and space. The light ink is
then the tool with which Botticelli adds subtlety and expressiveness to the vellum surface, and invests his subjects with specificity and presence. The three drawings in this case study demonstrate his anormative use of the dark ink for these purposes. Due to the dark ink’s visible intensity, this atypical practice implies not just subtlety and expressiveness, specificity and presence, but also an aura of assertiveness, even authority. This authoritative character of the dark ink argues for the drawings’ execution in Botticelli’s own hand (as opposed to workshop production), and for the possibility that he applied this ink working across and between canticles. We can, therefore, with these three drawings from three different canticles, glimpse the artist’s material, stylistic, and perhaps even imaginative shifts.

That these three drawings relate in their deviations from the series’ normative process suggests that the members of this “set” may have been worked on simultaneously alongside one another or in succession. Such a circumstance therefore problematizes the presumption that the drawings were executed according to the narrative chronology imposed by Dante’s text. To further suggest the breaking down of a linear paradigm of artistic production, I structure the analyses that follow with the last canticle, Paradiso, first, Purgatorio, second, and Inferno, third.

The first drawing, Paradiso II, depicts the figures of Beatrice and Dante in conversation in the first star, or the heaven of the moon. Two figures – Dante and Beatrice – inhabit the larger celestial sphere: Beatrice motions towards the smaller sphere and Dante looks up in awe (see figure 9). The folio is in a considerably good state of preservation, despite some condition issues, including yellowing and slight

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94 See Note 65 for qualification of workshop production.
flaking along its perimeter, and irregularities suggesting that the sheet was trimmed down at one point, possibly for its eighteenth-century binding, since it is part of the Hamilton codex. The fragile vellum evidences a range of diverse marks and traces attesting to its manufacture: horizontal and vertical impressions left by the scribe’s ruling, indicating the parchments remarkable thinness and refinement, can be seen from the sheet’s verso. Botticelli began his mark-making by employing a compass (or dividers) to create metalpoint circles in two sizes, a large central one and a smaller left-adjacent one.

The thick, squared metalpoint lines indicate the type of mark-making implement Botticelli used: a thicker, square-tipped silverpoint stylus. In rendering the figures, faint lines of the metalpoint gestural crosshatching begin to formulate mass and shadow, while revealing a spontaneous and perhaps indecisive nature on the part of the artist. In the figure of Beatrice, for example, intricately calibrated folds and shadows model drapery, creating a subtle play of light and sensuous surface (see figure 10). The three separate lines outlining Beatrice’s shoulder indicate the reworking of this element, suggesting a rethinking of the figure’s anatomy and contour (see figure 11).

The figure of Beatrice, the most heavily worked in metalpoint and the only form retraced in light brown ink (with the exception of Dante’s right arm), exhibits a

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96 It appears as though the folio was taped at its head and foot, roughly ½ inch from the sheet’s edge, as some of the painted ground has been released and the underlying animal skin slightly lifted. There are faint metalpoint lines inscribed along the perimeter of the page, though these demarcations are uneven with roughly a 1-inch margin on the right ½ to 2-inch margin on the left, and an even 1/4-inch at the sheet’s head and foot. This irregularity along the border is curious. It is unlikely that Botticelli would have created an irregular sized frame, and it is far more likely that these inconsistent measurements are the result of their various handlers’ manipulations over the centuries. Since vellum is an organic, animal-based product, shrinkage and slight distortions over the centuries is a given. It would not, however, account for such uneven shrinkage along the perimeter.
fluid and confident linework in ink, which only echoes the contours indicated by the metalpoint hatch marks. Botticelli’s handling of Beatrice’s left hand, for instance, shifted it down and altered the form, its fingers redrawn to rest more closely on Dante’s chin (see figure 12). On her right hand, he retraced only the thumb and forefinger in ink, leaving the remaining three fingers a mere suggestion in metalpoint. The lack of hesitation and rapid economy of line imply that Botticelli was borrowing from his figural repertoire, graphic and even painted.

Thus far, the underlying metalpoint and light ink contours described adhere to what I have defined based on quantitative analysis as the artist’s normative process in the Dante series. In iconographic terms, among the aspects complicating this notion of normative process of ink handling are Dante’s right arm and surrounding drapery, rendered in light brown ink in this drawing (see figure 13). While many scholars try to connect the fact that Beatrice is the only figure in light ink to her divinity and “otherness” in the narrative, Dante’s limbs contradict such interpretations.

97 Beatrice’s draped ensemble is very similar to that of the artist’s painted figures, most notable being Pallas from Pallas and the Centaur (1482). This painting was executed around the same time as the Dante series (whether before or after is not specifically known) suggesting that the artist could have copied features from the painting or its missing corresponding sketch in his rendering of Beatrice. Alternatively, this sheet could possibly be the place in which he first realized the Pallas/Beatrice figure. The heavily worked metalpoint lines suggest that he was working to construct the figure’s anatomy and placement on the final sheet itself. And yet the laurel leaves of her crown are not outlined in metalpoint, but are instead executed in quick strokes of ink, underlining Botticelli’s spontaneous authorship. This complicates our hypotheses and suggests instead that he did create the Pallas figure first and reused these same features in his drawing of Beatrice. The shared vocabulary in Pallas and Beatrice’s head, face, and feet argue strongly for the connection between painting and drawing.

98 Given the similarities of the figure of Beatrice to that of Pallas, it would follow that Botticelli was similarly borrowing from the painting in the creation of Dante’s right side. Botticelli would have been working on the two forms simultaneously, on account of them both being in light ink. This hypothesis falls flat, however, because, while Beatrice is a perfect fit for Pallas, there are no similarities between Dante’s right arm and foot and the painting’s other figures, notably the Centaur. Instead, connections can be made between Dante’s right hand and the right hand of one of the seven allegorical liberal arts in the fresco A Young Man Before The Assembly of the Liberal Arts and the Virgin in Primavera. Apart form being completed around the same time (ca. 1482/83), any connections between these works and Pallas and the Centaur are tenuous at best. If we accept the idea that Botticelli’s paintings, or at least their preparatory sketches, were completed first, and that the messy metalpoint contours in the figure
problematizing this typical process, dark ink contour lines here define all compositional elements, with the absence of light ink underdrawing (with the exception of Beatrice). Figure 14 shows my manipulation of the image depicting the light ink in isolation, so as to suggest what the artist’s first stage of inking looked like within the sheet’s entire composition. I would hypothesize that Botticelli worked on this section separately. Moreover, factoring in dry and prep time, it could be postulated that the figure of Beatrice in light ink was in and of itself a separate project, most probably completed at a different time than the darker inks.  

When rendering the figure of Dante in dark ink, Botticelli retraced select metalpoint lines carefully, leaving others untraced, such as those composing the figure’s robes (see figure 15). He used dark ink to adjust his previous articulation of Dante’s fingers in metalpoint, and did the same with his laurel leaves. He also employed dark ink to correct errors in proportion in his metalpoint drawing, enlarging Dante’s feet (see figure 16). These details represent an intermediary stage, and yet Botticelli uses the dark ink, typically indicating an ultimate stage of “finish,” to perform such tasks. Figure 17 shows my reconstruction of the dark ink in isolation, in order to visualize how the artist may have re-approached composition on a single sheet. This is particularly revealing when viewed alongside figure 14.

The second drawing for comparison, Purgatorio III, resembles Paradiso II in ink usage (see figure 18). In narrative, this drawing depicts the figures of Virgil and Dante on the ‘island plain’ where they meet the souls of the excommunicated who are

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of Beatrice are mere coincidence, it could be suggested that the light ink areas were the areas borrowed from his paintings, and therefore were completed first and separately from the rest of the composition.  
99 For discussion on material properties and drying times see Ross, Pigments Used, 6.
Evidence of the vellum’s production can be seen on the right side of the sheet, in which the edge is somewhat deckled, clarifying the sheet’s fine, but still hand-made and imperfect, manufacture. The sheet’s impeccable quality is, no doubt, in large part due to the fact that it was housed in the Hamilton codex for a long period, particularly when compared to the Vatican drawings, which are inferior in their condition; it can therefore be supposed that at the time the artist was working on them they were pristine, if not close to. That said, it is difficult to tell, without extensive chemical tests, which smudge marks and discolorations occurred at the time of their creation and which ones are a result of their various caretakers’ handling over the centuries. For example, in the upper right corner of the sheet there are gray blemishes that were very likely transferred from a charcoal drawing, or something equally transferable. Whether this was Botticelli’s doing, by layering and storing his drawings in unfitting conditions, or a later collector’s mistake, is unknown. Given the drawings’ long histories, it is likely the latter, though it is compelling, when taken with Botticelli’s laissez-faire treatment of inks and metalpoint, that he was also less than attentive when storing his works.

Botticelli employs minimal metalpoint in this sheet. These contours are gestural and appear to indicate figural placement rather than specificity in anatomy or character. The only occurrence of codified, one could argue even messy, metalpoint is the group of figures in the lower right of the composition. It would seem that the artist paused while rendering the figures’ anatomy and placement, even changing his mind between the metalpoint underdrawing and its corresponding ink outline. Botticelli,

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after completing the metalpoint design, went in with light ink, sketching in the
majority of the rocky land formation (depicted in the upper right quadrant) and the
three central figures. Figure 19 illustrates the light ink in isolation, indicative of the
artist’s first compositional stage. He also sketched in the general composition of the
scene, clarifying the elliptical geography. Given the fact that these compositional
landscape lines meet those of the rock formation, one can speculate that he started
with the rock formation, and then drew the compositional, curvilinear lines to meet it,
all in the same light brown ink.

It is more difficult to discern whether he drew the central figures before or
after the rock formation. The lines overlap, but, given that they are the same color, it
would be outside the purview of this analysis to definitively say which came first.
That being said, given the gestural quality of the cliff, and its expressive lines, it can
be speculated that he could have drawn that first, so as not to interfere with the
figures. Given Botticelli’s traditional workshop painting practices, in which he would
begin with gestural sketches, the general, before depicting the details, the micro, it
would follow that he would determine the landscape before realizing the figural
studies.

The final step in Botticelli’s rendering is the use of the darker ink, isolated in
figure 20. He retraced the curvilinear landscape lines in this ink tone and also finished
the architecture of the rock formation with organic, and yet still structural, lines.
When viewed alongside the areas delineated in light ink, the tip of the pen used for
the dark ink appears to have been a smaller, finer tool. This is particularly noticeable
when the two lines overlap. The distinction in ink tone is particularly notable in the central figures of Virgil, in light, and Dante, in dark (see figure 21).

Confirming the illustrations’ references to their medieval antecedents, the artist’s interpretation of this scene employs continuous narrative, and Botticelli represents four different scenes, moving from left to right.\textsuperscript{101} Peculiar to this composition is that one and a half of the scenes are executed in light ink, with the rest dark. He depicts the central narrative, a solo Virgil and Dante conversing, along with Virgil from the following narrative, when he and Dante journey to meet more excommunicated souls. The use of the light ink follows the diagonal composition of the craggy cliff, also in light ink, positing the artist’s general approach to composition (see figure 22). Similar to that of \textit{Paradiso II}, this tonal shift signals a pause in the artist’s procedure. Curious still is the fact that there is very minimal metalpoint preparation (see figure 21 detail). This could advocate the possibility that Botticelli used a preparatory study for the drawing, or simply affirm scholarship that suggests he consulted medieval illustrations of the same text.

In general, given the perspective of the drawing and its smaller-scaled figures, the lines are somewhat less fluid and more controlled in order to achieve their level of detail. The fact that he did not employ much metalpoint, and also overlapped his ink contours, suggests a sense of spontaneity, if not lack of planning, in this sheet. A similar element of expediency in design procedure can be seen in the crowd figures’ common facial type. This suggests that Botticelli aimed to quickly draw a large number of figures and therefore borrowed from his repertoire, both within the series itself as well as the artist’s larger graphic and painted oeuvre. The figures then, that

\textsuperscript{101} Watts, Barbara J., “Sandro Botticelli’s Drawings for Dante’s ‘Inferno,’” 163–201.
bear individualized face, of which there are a few, would suggest Botticelli’s reference or interest in these more unique features (see figure 23). Given that only three figures are rendered in light ink, the artist’s depiction of physiognomy is exclusively formulated using dark ink. Juxtaposing Purgatorio III alongside Paradiso II shows that he could have worked on the precise physiognomy of Paradiso II’s Dante in dark ink, and then went back to the Purgatorio III sheet, already begun in light ink, to perfect the mannerism and facial features of the more individualized characters.

The final drawing in this study, Inferno XXVII, differs slightly in ink application from that of Paradiso II and Purgatorio III through sole use of the dark tone (see figure 24). The drawing narrates Dante and Virgil conversing with Guido da Montefeltro in the eighth bolgia for the punishment of evil counselors.\textsuperscript{102} In Botticelli’s interpretation of the same scene, however, the artist simply renders the two figures standing upon a bridge in the Malebolge landscape, looking down into a cragged canyon at the false chancellors, once human in form but now delineated flames.

\textit{Inferno XXVII}, when aligned with these two drawings, reveals slightly different material properties. It appears that at some point in its history the \textit{Inferno} canticle was bound or mounted separately, as there are small poke holes along the right and left sides and foot of the vellum sheet. Botticelli very sparingly sketched out the general composition in metalpoint, lightly demarcating the vertical and horizontal construction of the cavernous landscape. The most codified lines, of which there are

not many, structure the flame motifs. The artist’s assured and confident treatment of
the landscape and geographical iconography reveal alacrity of thought.¹⁰³

There is little to no metalpoint used to render the figures of Dante and Virgil,
with only the suggestion of form in the delineation and anatomy of the shoulder and
trim of the drapery (see figure 25). It is this minimal use of metalpoint that is
particularly revealing of the artist’s handling of ink. When Botticelli applied ink he
did not follow the metalpoint construction lines precisely, but rather invented
comparable lines and shapes, with slight variation, in the same point in the
composition. This is particularly evident in the flame designs which, given their
frequency in the pattern and greater use of metalpoint, reveal the variation in ink as it
corresponds to the metalpoint model (see figure 26).

Key to Botticelli’s characterization of ink in this sheet is, as previously
mentioned, his sole employment of dark brown. Instead of sketching out the
composition in a light brown preliminary drawing, Botticelli does so exclusively
using the dark ink. Given that only one ink was employed in this sheet the inking
process is quite simple to discern. The ink lines are swift and confident, executed in
only a few lines, clarifying his decisiveness. The line width varies, some lines thicker
than other, suggesting variation in how the pen nib was cut and with what width.
Some of the ink lines have bled, further suggesting fluency and alacrity of line.

The iconography of the figures of Dante and Virgil, given the facility and
confidence in which he depicted them in ink, was evidently known to the artist and
already established in his repertoire. He then would have gone in and embellished the
empty canyon with linear-structured frames, rendered with more specificity.

¹⁰³ Unlike Paradiso II and Purgatorio III, there are no inscriptions on this sheet.
This drawing shows the dominance of dark ink, completely deviating from the drawings’ normal process, as I have previously proposed. The fluid line quality and ease with which the artist achieved figural and geographical composition confirm the artist’s increasing confidence and authority. In this way, we see progression in the artist’s process that completely defies chronological order. If anything, it is anti-chronological, moving from Paradiso, through Purgatorio, to Inferno. It is so often thought that, since the Paradiso drawings are more detailed, and, one could argue, developed, as well as closer to the artist’s painted works, that Botticelli went through a kind of artistic evolution, beginning with the more rudimentary, simplistic renderings in Inferno, and graduating to more developed and sophisticated design in Paradiso. Survey of the dark ink strongly suggests this not to be true.
2.3.2

CASE STUDY 2: Geometry in the Paradiso Circles Indicative of Early Compositional Stage

From mapping the data introduced in 2.3 onto patterns of formal correspondence, the Paradiso circle motif emerges as an exemplar of certain aspects of Botticelli’s compositional methods, in terms of the configuration of underlying structural alignments. Clustering the drawings according to circular correspondences suggests that the artist employed a particular process predicated on precise attention to geometry. From these observations arise two important potential implications: that Botticelli worked simultaneously on the drawings that demonstrate geometric alignments – symptomatic of a synchronic procedure that cuts across multiple drawings – and that his conception of geometry changed in the course of production of this canticle – possibly indicative of a production chronology.

Attending to the prospect of locating such intentionality in Botticelli’s artistic process obliges consideration of charged principles such as proportion, harmony, and geometry. Impulse towards polymathy in the Renaissance led many scholars, Leon Battista Alberti in particular, to create parallels between the visual arts and mathematics. As such painters and architects adapted the use of whole number ratios to determine visual harmonies. To Alberti, all beauty was the result of fine proportion, a perspective no doubt influenced by ancient Roman architect Vitruvius. In combining Roman principles with Renaissance intellect, Alberti also consulted the classical written and visual corpus for inspiration and, in his own words, in the manner of Aristotelian philosophy, “a harmony of all the parts… fitted together with

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such proportion and connection, that nothing could be added, diminished or altered, but for the worse."\(^{105}\) In *Della pittura*, a text known to have greatly influenced the work of Botticelli and his contemporaries, Alberti aims to describe systematically the primarily figurative arts, by means of geometry.\(^{106}\)

The *Paradiso* series is particularly interesting because its composition follows a relatively simple and constant design, in contrast to the drawings for *Inferno* and *Purgatorio*, fraught with action and movement. In their simplicity, the *Paradiso* drawings are relatively formulaic and easy to understand, and in this they actually deviate from Dante’s narrative for this canticle, which is obscure and difficult to follow.\(^{107}\) Within the context of Albertian geometry, the attention to dimension and proportion present in the renderings for *Paradiso* argue Botticelli’s conscious effort to achieve proportion and perfect geometry as he began work on this particular canticle.\(^{108}\)

These conjectures, when delimited by one canticle, enable us to disentangle Botticelli’s process. Inspired by the framework provided by art historian Juliana

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\(^{107}\) Though it is tempting, and no doubt lucrative, to compare the geometry of Botticelli’s paintings to the *Paradiso* drawings, that is not useful given the limited scope of this analysis in understanding the particular manufacture of the *Paradiso* series.

Kang’s 2015 research, which provides a case study quantifying Raphael’s drawings according to their compositional construction, the present study aims, in part, to understand the compositional structure and measurements of Botticelli’s *Paradiso* series as it is suggestive of the artist’s early stages of production.\(^\text{109}\)

The preceding investigation of inks questions how Botticelli may have worked across the entire series, while this analysis takes a more “micro” approach and investigates how he may have worked within one particular canticle. Without the physical drawings, unframed, at my disposal it is of course difficult to ascertain the precise measurements of each circle. Though, for the purposes of a micro-examination of these drawings, it merits to offer approximations, to the best of my ability.\(^\text{110}\) In the following clusters, three and four, I will note these measurements in order to offer quantitative confirmation of both size difference and regularity in the circle constructions.

To delineate circular forms Botticelli undoubtedly made use of a compass (or pair of compasses, or dividers), a multifunctional Renaissance instrument. The compass was the most basic geometric apparatus for inscribing circles or arcs, drafting, mathematics, navigation, and diverse uses. For greater accuracy a pair of dividers with a straight screw might have been used, which offered a higher degree of precision in the adjustment of the device’s leg aperture, and could also be used to scale shapes and figures up or down.\(^\text{111}\) Discrepancies in pressure can also be inferred


\(^{110}\) I obtained these measurements by printing out full-scale reproductions of the drawing, based on the sheet measurement (325 mm high and 475 mm wide), and hand measuring the circle motifs.

from the inking of the circle: the width of the line varies, thicker in certain places, breaking in others, the areas having more ink expressing more pressure. In still other areas, the line appears retraced a second time, or the circle’s construction seam is visible. These adjoining and overlapping lines do not always precisely meet, indicating that Botticelli may have accidentally moved the dividers mid-process.

My first construction employs *Paradiso XXIII, XXIV, and XXV* to demonstrate the normative, self-referential process of Botticelli’s method of imagining composition. All drawings engage similar imagery, and yet the forms and composition of each do not copy one another other exactly. Figure 27 layers these drawings, *XXV*, depicted in green, *XXIV*, depicted in red, and *XXIII*, depicted in brown, according to compositional bordering and demarcation, and indicates modification in the placement of the iconography. This suggests that the artist was referencing one while constructing the other but not precisely copying the forms, in neither measurement nor shape. The figural contours and compositional demarcations are close, but the flames, and their placements, differ. This comparison, revealing a less incongruent recycling of form, is what one would expect of a self-referential artistic process. It functions as a counter point to establish the precise uniformity of the *Paradiso* drawings that conform to the circular motif and to suggest that, as I will discuss below, the artist was not simply referencing the shape, but rather, for the circles that conform in precise proportion and measurement, he was working on them simultaneously instead of successively.

My second cluster employs *Paradiso V, XX, and XXII* and demonstrates an abnormal construction to that of Figure 27, and a geometrically precise
correspondence. Figure 28 illustrates my Photoshop manipulation of the three drawings’ contours (previously referenced in data compilation), with *Paradiso V* depicted in red, *XX* in yellow, and *XXII* in dark blue. When the inscribed compositional borders are aligned, the contours of each of the three circles also closely align. This illustration depicts the congruence of each drawing’s respective circles.

The revelatory role of the *Paradiso* circles’ construction as advocated by my preliminary construction of *V*, *XX*, and *XXII* is further substantiated by my third case study. Analysis of the orientation and measurements of *Paradiso XV*, *XVI*, *XVII*, and *XVIII*, ruptures their chronological connection, and posits an alternate and more sporadic production method. Figure 29 illustrates my principle alignment, with *Paradiso XV* depicted in green, *XVII* in blue, and *XVIII* in red. The contour lines of the *Paradiso XV* and *XVII* circles precisely align (see figure 30), while the outline of *Paradiso XVIII* is of a slightly larger size and, though it aligns at the bottom, it exceeds the contour circles of *Paradiso XV* and *XVII* at its top. In approximate measurements, the circles for *Paradiso XV* and *XVII* measure roughly 267mm in diameter, and that of *Paradiso XVIII* measures a more uniform 275mm. This indicates that the compass was adjusted to a slightly different measurement, affirming that it was completed at a different time.

Though these drawings are close in narrative chronology, the surviving sheets that precede and follow in textual narrative, do not have the same circular construction. The circle construction for *XVI* therefore does not line up with neither *XV* nor *XVII* (see figure 31). The measurements are roughly the same, measuring
approximately 267mm, and yet the design of the circle is shifted up by roughly five or six millimeters. If we then compare XVI to XVIII, the drawing that follows the last drawing in this cluster, it is clear that XVIII is again larger in size and modified in placement (see figure 32). The precise uniformity in measurement, composition, and proportion of XV and XVII strongly suggest that, though they are not successive in narrative chronology, they were produced simultaneously. It also positions XVI and XVIII, which do relate to both drawings in narrative chronology, in a different timeline of production, given their disparate proportions and measurements.

Given the complex implications of this hypothesis, it merits observing the circle, which we have founded in terms of its insular proportion and geometry, within the entire drawing’s composition, denoted by the artist’s drawn borders. Figure 33 bears construction lines that mark the center of the composition as well as those that clarify the center of the circle. We can see that the placement of these two points differs, with the circle’s central point just below and to the right of the composition’s center, concluding that the circle is not perfectly centered within its composition.

It is within this context that my fourth and final case study gains momentum. Figure 34 illustrates the foundation for which I will begin this examination, with the four drawings Paradiso III, IV, VII, and VIII, depicted in blue, orange, green, and pink, respectively. Paradiso III, IV, and VIII precisely align (see figure 35), while Paradiso VII’s circular construction measures slightly larger. Numerically, III, IV, and VIII measure approximately 282mm, while VII measures a more regular 285mm. As in my third example, in which I employ XV, XVI, and XVII, the circular alignments do not conform to narrative chronology. The circles inscribed in II, V, VI
and IX, those beginning, in the middle of, and concluding the drawings in my fourth study, do not conform to the precise orientation of III, IV, VII, and VIII. In figures 36-39 I have illustrated this for each of the four drawings by layering them, independently, with Paradiso III, depicted in blue, which represents the measurements for Paradiso IV and VIII.

Compositionally this set of drawings is telling of the artist’s procedure, particularly if we return to my earlier discussion of the inherence of geometry in Renaissance intellectual and artistic culture. Figure 40 reveals something quite unlike that of my third case study in regards to the circle’s compositional placement. Construction lines, again delineating the center of the circle and that of the overall composition, reveal that the homogeneous circles of Paradiso III, IV, and VIII are just shy of the overall composition’s center. This very same procedure, when applied to VII, unveils, quite remarkably, that the circle’s center aligns precisely with that of the sheet’s overall composition.

The implications of this micro-study accrue significance when taken together with our understanding of Botticelli as an artist who prescribed to precision and harmony in architectural and figural design. The fact that Paradiso VII is the only drawing featuring a perfectly centered circle suggests that it was the first drawing in which the artist employed the circular motif. This hypothesis, grounded on the principle that Botticelli would have had the inclination for harmonic and proportional compositions, as advised by Alberti, fractures any sense of the artist’s adherence to the text’s chronology. Why precisely the artist would continue the circular design with arbitrary positioning, the shift of which does not follow a general compositional
trend nor is detailed in the text’s original vernacular, is unknown. Rather, what the
material evidence strongly suggests, through the aforementioned tri-grouping of
drawings via their circular construction, is that he worked on select drawings in
simultaneous, cross-canticle groups. Further filtering these clusters by compositional
symmetry and geometric construction leaves us with one sheet, that of *Paradiso VII*
(see figure 41) which, with its perfectly geometrically founded composition, very
well may have been the first sheet of the *Paradiso* canticle that the artist completed.
CONCLUSION

Botticelli’s cycle of Dante drawings, equal parts synoptic illustration and artistic exercise, occupies an important place in the history of Divina Commedia illustration. Their unusual presentation cannot help but intrigue, and their delicate, almost ethereal quality is nothing short of inspiring. And yet the paucity of documentation from the moment of their making to their nineteenth-century rediscovery, combined with the limited surviving contemporary documentation on the artist, has engendered a very particular representation of Botticelli’s graphic oeuvre dependent on the first account of the artist recorded by Giorgio Vasari.

Vasari’s biography is critical of Botticelli per the artist’s “imperfect” second generation origin, undermined by Michelangelo’s perfection. Resulting from this Vasarian teleology, and embedded in the construct of modern artistic biography, are narratives of stylistic evolution that predetermined stylistic improvement over time. This particular program prescribes a linear artistic process, one subverted by Botticelli’s varied approach and stylistic evolution as presented in the Dante series. Vasari’s agenda for what constituted the ideal artist simply did not allow for these complex drawings, incepting a flawed narrative that survived and was, as we have seen, recycled in the nineteenth-century portrait of the artist and is regrettably still valid today.

A direct repercussion of this historiographic inheritance is the disparate inattention to Botticelli’s graphic oeuvre, most significantly the technical properties and artistic procedure inherent to the works. Close analysis and synthesis of the drawings’ material properties, undergone in Part II, reveal an eccentric, nonlinear
artistic process, in which the artist worked on sheets irregularly and unsystematically in a way that ruptures both Vasari’s notion of ideal artistic production, and the nineteenth-century dependence on a production timeline that corresponds to narrative chronology.

In my analysis I have undertaken a micro-study of the artist’s process, informed by the material properties of all surviving sheets. The drawings’ unfinished states, simultaneously fractured and provocative, enable us to pursue this particular line of inquiry by freezing and analyzing each independent layer and stage employed in Botticelli’s procedure. The scope of the present study, however, did not permit the study of larger, theoretical questions on the notion of ‘unfinished’ or ‘non finito.’ It is my hope that by exploring what the unfinished reveals, insofar as unpacking artistic process, I have inspired further study on the theory of the unfinished in drawn media and the power it has to elevate the underrated art form, while simultaneously offering an alternative way to re-edify artistic biography through the artist’s perhaps most intimate medium.

Throughout this project my goal was to rupture not only narratives inherited from Vasari and nineteenth-century scholarship, but also the restricted methods with which we study drawings. The relatively static state of scholarship on the Dante drawings, focused solely on them as illustrations, therefore required a new and forward-looking methodology to study their material aspects. In this way, as a means to infer patterns of production from the drawings, I treated them, a substantial “sample” of over ninety drawings, as quantitative and qualitative data from which I extracted patterns, or clusters sharing similar material or compositional properties.
Digital media methods of this kind enabled me to layer, organize and group the drawings in order to then extract data and construct hypotheses otherwise unattainable through close scrutiny of individual sheets alone. Of the sample from which I derived my two case studies, isolated for their shared deconstruction of a linear paradigm, many more combinations could be collected and analyzed, and an even fuller image of Botticelli’s artistic process achieved. Incorporating the interdisciplinary digital humanities into art historical study is a burgeoning field, one that I foresee, building from the framework that the present study develops, will incite interest and discovery in the less-trodden field of Renaissance graphic media and its role in artistic biography, process, and identity.
*All raw images are courtesy of Artstor, with the exceptions of figures 1, 2, 7, 14, 17, 19, and 20, which are cited accordingly.

**Unless otherwise noted, all works are by Sandro Botticelli.

1. **Binding of codex Hamilton 201.** Depicted here is the table of contents written by Giovanni Claudio Molini on the inside front cover of the Hamilton codex. The sheet remaining in the binding is the text for *Paradiso XXX*. Image and citation courtesy of Hein-Th Schulze Altcappenberg, “*per essere persona sofistica,*” 23.


The edition depicted here was published by Belser Verlag, with commentary by Peter Dreyer. The format follows the supposition that the drawings were intended to be bound. This figure shows the illustration and corresponding text to *Inferno XXXI*. Image and citation courtesy of Hein-Th Schulze Altcappenberg, “*per essere persona sofistica,*” 24.
3
Purgatorio VIII (DETAIL).
This detail, extracted from the center of the composition, demonstrates what I have defined as “heavy metalpoint” and bears many construction lines and overlaid contours.

4
Inferno XXX (DETAIL).
This detail, also extracted from the center of the composition, demonstrates what I have defined as “faint metalpoint” with forms constructed with barely visible gestural lines. Botticelli has begun to specify, to some degree, the placement of a figure’s eye and mouth, but these are preliminary at best.
5
Paradiso III.
This drawing shows the artist’s termination of the dark ink, which he began outlining the light ink with, in the center of the sheet, suggestive of Botticelli’s “pause” mid-procedure. For increased legibility of the compositional division, the red line traces the precise placement of this break in ink tone.

6
Paradiso III (DETAIL).
This detail, extracted from the group of figures situated on the ink “break” line, emphasizes the termination of the dark ink. While the figures towards the top of this image have both light ink underdrawings and dark ink outlines, the figure situated in the right corner is composed only of light ink and does not bear a dark ink contour.
7

Author’s representation of the data presented in Table 2 as a bar graph.

The X-axis, titled “Co-occurrence of Materials and Method” is divided into the twelve different possible combinations of methods and materials. In this table HMP is abbreviated for “heavy metalpoint,” FMP for “faint metalpoint,” DI for “dark ink,” and LI for “light ink.” The Y-axis, titled “Number of Sheets” shows the number of individual sheets that correspond to the method combinations. Visually, this graph shows that “heavy metalpoint and light ink” was the most frequented, with “heavy metalpoint and both inks” and “faint metalpoint and light ink” as a close second and third, respectively.
Author’s reconstruction of all *Paradiso* drawings that share the circular motifs. This is the composite series from which all case studies were derived.
Paradiso II.
Here Botticelli depicts the figures of Beatrice and Dante conversing in the first star, or the heaven of the moon.

Paradiso II (DETAIL).
Botticelli’s many construction lines in metalpoint, seen here, show the artist’s process of decision making as he reworked Beatrice’s shoulder.

Paradiso II (DETAIL).
Botticelli depicts the intricate folds of drapery with quick, confident metalpoint contours. He suggests volume almost exclusively in contour lines, though faint metalpoint hatch marks compose the underdrawing.
12
*Paradiso II (DETAIL).*
Botticelli clearly readjusted the positioning of Beatrice’s hand, seen here in the faint rendering of finders in metalpoint, positioned just above the “final” hand in light brown ink.

13
*Paradiso II (DETAIL).*
Clear distinction in ink color (light vs. dark) can be seen upon close scrutiny of Dante’s arm, which, interestingly, is depicted in light ink along with Beatrice’s form.
**14**

**Author’s reconstruction of Paradiso II, isolating the light ink.**

This reconstruction isolates the light inked portion, a solo Beatrice, in relation to the entire sheet’s composition. In order to achieve a high quality image from which to separate the two inks, I scanned the image from the Royal Academy exhibition catalogue, *Sandro Botticelli: The Drawings for Dante’s Divine Comedy*, which accounts for the image’s white tone (see Appendix).

Raw image courtesy of *Sandro Botticelli: The Drawings for Dante’s Divine Comedy*, 221.

**15**

*Paradiso II (DETAIL).*

Botticelli did not precisely follow his metalpoint guidelines, seen here in his neglect of select metalpoint lines.

**16**

*Paradiso II (DETAIL).*

Changes between the metalpoint and ink drawing changes can be seen in Botticelli’s rendering of Dante’s feet, which he notably enlarged in ink.
Author’s reconstruction of *Paradiso II*, isolating the dark ink.

This reconstruction isolates the dark inked portion, Dante and both celestial spheres, in relation to the entire sheet’s composition. See in conjunction to Figure 14.

Raw image courtesy of *Sandro Botticelli: The Drawings for Dante’s Divine Comedy*, 221.

Purgatorio III.

In this drawing Botticelli renders the figures of Virgil and Dante on the ‘island plain’ where they meet the souls of the excommunicated.
19
Author’s reconstruction of *Purgatorio III*, isolating the light ink.
This reconstruction isolates the light inked portion, Dante, two Virgils, and the cliff, in relation to the entire sheet’s composition. Raw image courtesy of *Sandro Botticelli: The Drawings for Dante’s Divine Comedy*, 141.

20
Author’s reconstruction of *Purgatorio III*, isolating the dark ink.
This reconstruction isolates the dark inked portion, the excommunicated souls and general landscape, in relation to the entire sheet’s composition. See in conjunction with Figure 19. Raw image courtesy of *Sandro Botticelli: The Drawings for Dante’s Divine Comedy*, 141.
This detail, depicting the central scene of Virgil, on the left, and Dante, on the right, illustrates clearly the distinction in ink tonality. Due in part to conservation and preservation methods, in conjunction with photographic lighting conditions, this distinction is clearer in this sheet than that of Paradiso II.

Depicted in this detail are the three central figures, rendered in light brown ink. Interestingly, the Virgil of the following narrative vignette is included in light ink, while his corresponding Dante (see figure 21) is rendered in the dark ink.
23

**Purgatorio III (DETAIL).**
These two figures, positioned in a crowd of more or less generalized figures, bear individualized physiognomy. The figure on the lower left boasts a crooked nose and receding hairline, while the one to the upper right, seemingly anxious in expression, carries a wrinkled brow and pudgy cheeks.

24

**Inferno XXVII.**
In this drawing Botticelli depicts Dante and Virgil conversing with Guida da Montefeltro in the eighth bolgia for the punishment of evil counselors.
25
_Inferno XXVII (DETAIL)._  
In sculpting Dante and Virgil’s robes Botticelli employed very minimal metalpoint.

26
_Inferno XXVII (DETAIL)._  
The ink outline of the flames does not align precisely with the metalpoint guidelines, suggesting confident and spontaneous execution.

27
_Author’s reconstruction of Paradiso XXIII (in brown), XXIV (in red), and XXV (in green)._  
These drawings follow one another in chronology and represent what one would expect of an artist referencing his own iconographical material, that is, when layered, the placement of the flame motif varies across the three drawings.
28
Author’s reconstruction of *Paradiso V* (in red), *XX* (in yellow), and *XXII* (in dark blue). These drawings are not sequential in narrative and yet, when layered, the contours of all three circles closely, if not precisely, align.

29
Author’s reconstruction of *Paradiso XV* (in green), *XVII* (in blue), and *XVIII* (in red). The contour lines of the circles precisely line up for *Paradiso XV* and *XVII*. *XVIII* is slightly larger and, while it aligns at the bottom, exceeds the *XV* and *XVII* circles at the top.
Author’s reconstruction of Paradiso XV (in green), XVII (in blue).
Here the circles of Paradiso XV and XVII are isolated to emphasize their precise compositional uniformity.

Author’s reconstruction of Paradiso XV (in green), XVI (in ochre), and XVII (in blue).
Though the drawn circles are close, that of Paradiso XVI is shifted up, roughly five or six millimeters.
Author's reconstruction of *Paradiso* XVI (in ochre), and XVIII (in red).

*Paradiso* XVIII is again larger than that of *Paradiso* XVI, emphasizing the difference in measurement and proportions. Not only is the proportion of the circle within the composition an issue of alignment and positioning, it is also one of size and measurement.
Author's reconstruction of *Paradiso* XV (in green), XVII (in blue) with grid and construction lines. This model indicates the center of the composition (the point on the lower-right) and the center of the circle (the point on the upper left), determined through intersecting lines. Though these central points are close, they do not precisely correlate.
Author’s reconstruction of Paradiso III (in blue), IV (in orange), VII (in green), and VIII (in magenta).

In this construction Paradiso III, IV, and VIII precisely line up, but VII is slightly larger, which can be seen along the bottom, where the green circle slightly exceeds that of the others.
35
Author’s reconstruction of Paradiso III, IV, and VIII.
All of these circles precisely align.

36
Author’s reconstruction of Paradiso III and II.
The circles do not align.

37
Author’s reconstruction of Paradiso III and V.
The correspondence between both circles is closer than that of figure 36. Along the right hand side Beatrice’s drapery forms the circle’s contour, which exceeds the Paradiso III circle slightly.
Author’s reconstruction of Paradiso VI.
The circles do not align.

Author’s reconstruction of Paradiso III and VIII.
The alignment of these circles is closer, though VIII is slightly larger and shifted up and to the left of III.
Author’s reconstruction of *Paradiso VII (in green)* with grid and construction lines.
This model indicates the center of the composition and the center of the circle, determined through intersectional lines. Both center points align precisely – *Paradiso VII* is situated precisely in the center of the composition.
This drawing depicts Dante and Beatrice in the second planetary sphere (heaven of Mercury). Beatrice explains divine justice, original sin, and redemption to Dante. Given the constructions in the preceding figures, it is possible that this was the first drawing in the Paradiso series that Botticelli began.
Collections Research

During the summer of 2016 the Courtauld Institute and Gallery included a selection of thirty-three of Botticelli’s Dante drawings in their exhibition *Botticelli and Treasures from the Hamilton Collection.* This was, in fact, the first time that the drawings returned to England since their 1882 sale and transfer to Berlin. The selection of drawings consisted of eleven from each canticle, *Inferno, Purgatorio,* and *Paradiso,* and also featured the original binding of the eighteenth-century Hamilton codex, into which the Dante drawings were once bound. This presentation was essential in contextualizing the drawings within their provenance and as objects within material culture studies.

The appearance of the drawings in (or rather on) the flesh, a rarity due in large part to their fragility and preservation measures, underscored both the previously understudied material properties of the drawings as manufactured objects, and the methodological challenges posed by the study of these same properties. To begin to address questions such as the quality of the vellum, characteristics of the faint metalpoint, and manner in which the ink sat upon the vellum substrate, recourse was made to works on paper comparable in terms of geographical and temporal range.

At the British Museum, these comparanda included metalpoint drawings on vellum by Maso Tommasoii Finiguerra and an anonymous Italian of the same period, which spoke to the material nature of vellum, including thickness, sheen, and durability. Drawings on paper, executed in metalpoint and charcoal, by artists such as

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Filippo Lippi, Domenico Ghirlandaio, Leonardo da Vinci, and Michelangelo Buonarroti constituted objects of further study. At the Morgan Library & Museum drawings studied included works by Filippo Lippi, Vittore Carpaccio, and Andrea del Verrocchio, among others, though a particularly helpful, intriguing, and much anticipated piece was Botticelli’s linen fragment of Adoration of the Magi. This latter piece, presumed to be a preparatory cartone for a larger painting, evinced Botticelli’s handling of ink, attention to figural composition, and reuse of characters and mannerisms from his repertoire particularly telling of the artist’s style and methods for rendering horses, crowd scenes, and physiognomy. Though analysis of this piece did not make it into the final thesis, it offered indirect insights into Botticelli’s processes.

Key to maintaining a focused study of the Dante drawings, and the processes by which Botticelli executed them, was to focus on the artist’s graphic oeuvre, with little to no analysis given to his painted works. Reconsidering the artist’s problematic biography revealed that analyzing his drawings as they mimicked or conformed to his paintings would be derivative of Vasari’s teleological framework undermining Botticelli as a draftsman. That said, however, to study properly the artist and his drawings required a broader understanding of the artist’s complete oeuvre. To this end, the Victoria and Albert Museum’s exhibition Botticelli Reimagined brought together nearly fifty artworks, borrowed from several international collections, by the artist and his workshop. The inclusion of some lesser known works, primarily Madonnas and commissioned portraits, offered an alternate view of the artist that perhaps deviated from his canon, as perceived by modern culture, while portraits of
Simonetta Vespucci and his well-known *Pallas and Centaur* codified the artist’s bold, yet sensitive, handling of his brush and expert exploitation of color and color theory. *Botticelli Reimagined* also included five additional Dante drawings from the Vatican and Kupferstichkabinett Berlin, which proved instructional when viewed in concert, as those of the Vatican are in relatively poor condition, hindering their legibility. The disparate material conditions of the Vatican and Berlin sets clarified the problems in art historical scholarship pertaining to object provenance and history. But it also rarified the excellent condition of the Berlin drawings, further elevating them as an exquisite moment in the study of Italian Renaissance art and material history.

**Simulation of Manufacture**

While object-based study of drawings at the Morgan Library & Museum and the British Museum offered important insights into Italian Renaissance draftsmanship, for a deeper understanding of the attendant materials and processes, simulation experiments were undertaken. These entailed acquiring and handling sheep vellum, prepared by a local craftsman who emulated the techniques of medieval manuscript production, and applying a metalpoint gesso ground, the consistency and appearance of which closely mimicked the qualities of an Italian Renaissance metalpoint ground. I applied the ground in light, even strokes, applying two layers each sheet – the amount needed to mirror, as best I could tell, the metalpoint ground on the Dante sheets. I left a ½ inch border on the sheets and, once dry, used a metalpoint pen, again of modern grade and manufacture, to draw on both
the raw vellum sheet and the portion prepared with a ground, to test the quality of line achievable on each.

A rich, dense, and fluid line was achievable on the portion with ground, and only a faint, dull line on the portion without. The metalpoint instrument, itself quite simple to use, renders line much like graphite or charcoal does. A key difference, however, is that the line is essentially irreversible: indeed, they did not smudge for shading or erasure. There was also no way to diversify the line, as only one width and tone was possible, hence the need for cross-hatching and line-repetition to formulate shape and shadow. This experiment, though minor in scale, required one to be extremely adept and practiced in their technique and well versed on the material properties of their tools, enabling subsequent study of the Dante drawings with increased familiarity of their production methods.

**Image Acquisition**

The data-collecting methods employed in this study required detailed imaging of some kind, notwithstanding the difficulty involved in obtaining high-resolution digital images from the respective collections, the Kupferstichkabinett Berlin and the Vatican. Artstor thus provided the ultimate platform to study the drawings with meticulous detail. In fact, given the scale of magnification, I was able to discern paper texture and ink and metalpoint quality with even greater clarity than when I viewed the drawings in person.

My first case study, which investigated the artist’s dual use of ink, required high quality images for digital media manipulation. Artstor’s magnification only functioned within the application itself, however, and full-size images of the drawings
were not sufficiently high-resolution. These studies necessitated the magnification of the canvas so as to differentiate each ink at a minutely detailed level, something that Artstor’s images unfortunately did not provide. The Royal Academy’s exhibition catalogue of 2000, *Sandro Botticelli: The Drawings for Dante’s Divine Comedy*, covering the complete set of drawings, proved useful in acquiring high-resolution images. By scanning the pages (measuring 9”x12”) I was able to achieve image of sufficient dpi (dots per inch) to adequately manipulate the drawings with minute detail. While only these images of *Paradiso II* and *Purgatorio III* made it into my final analysis, this technique was implemented on a number of other drawings before making the final selection.


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Korbacher, Dagmar. “‘I am very, very happy that we have it’: Botticelli’s Dante and the Hamilton collection at the Kupferstichkabinett.” In Botticelli and Treasures from the Hamilton Collection, 15-23. London: Paul Holberton Publishing, 2016.


Lippmann, Friedrich. Drawings by Sandro Botticelli for Dante’s Divina Commedia: Reduced Facsimiles after the Originals in the Royal Museum, Berlin, and in the Vatican Library. London: Lawrence and Bullen, 1896.


Richter, Irma Anne. Rhythmic form in art, an investigation of the principles of composition in the works of the great masters. London: John Lane, 1932.

Ross, Janet Lawrence. Pigments Used in Late Medieval Western European Manuscript Illumination. Austin: University of Texas at Austin, 1971.


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