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Mock Project Prospectus For Purpose of Academic Exercise Only

Milton and the Incomplete (MiltonInc.)

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Abstract:
We seek a grant of $30,040 to support and enhance our Digital Humanities Project that explores the relationship between two types of experiences: the digital user's experience of using ScatterPlot programs on Milton's texts and the close-reader's experience of analyzing these texts. We explore this relationship in order to arrive at the next step: a critical consideration of Milton's iconoclasm. We intend to examine these experiences because it is our hypothesis that iconoclasm is a thoroughly experiential condition. Milton held the iconoclastic belief that God can never be represented in a complete form; all images of God are bound to be incomplete representations. Milton creates in his readers an iconoclastic experience that they can never achieve complete understandings not only of God but also of the texts they read. MiltonInc. intends to explore the ways that both close and distant readers experience this cumulative sense of iconoclastic incompleteness along the textual and digital scales.

Statement of Innovation:
This study's innovation lies in its reliance on distant reading and close reading methods. Project members will divide into two teams, whose respective duties are distantly reading and closely reading the texts. By initiating a study that emphasizes two scales of analysis, we believe that we can best execute a comprehensive exploration of Milton's iconoclasm.

Statement of Humanities Significance:
We propose that close and distant readers' experiences of Milton's texts are intricately intertwined with the specific textual and digital materials these readers handle. Though we ultimately concentrate on how studying two kinds of experience teaches us more about the issue of iconoclasm, our project is of potent relevance for traditional and digital humanists interested in studying the relationships between person and text and between person and machine.

Narrative

    We seek a grant of $30,040 to support our long-term project that explores Milton's iconoclastic philosophy. The crucial importance of MiltonInc. can be underscored by the lack of substantial digital humanities studies on Milton's iconoclasm. Even when a digital humanities study on Milton is conducted, such a study tends to analyze the stylistic elements of Milton's language.[1] Moving beyond stylistic concerns, this project examines the close and distant readers' experiences of textual and digital media in order to explore Miltonic iconoclasm.

    Our project has its genesis in a blog post titled "John Milton, Incompleteness, and Digital Iconoclasm," composed by the Project Director Phillip Cortes.[2] In this post the author explained that Milton held the anti-idolatrous belief that God could not be represented in images and that one could never derive a complete understanding of any image of God. Cortes in this blog post theorizes that Milton leads the reader into an iconoclastic experience of the text. Iconoclasm is an experience where the reader processes incomplete images and generates only incomplete understandings of these images. This, however, is a tentative thesis. This is why a project with a digital humanities focus is needed. We want to use the DH Voyant tool called ScatterPlot to confirm Cortes' thesis that iconoclasm is a readerly experience of incompleteness.

    For us to explore fully this thesis, we must recognize this project is deeply invested in understanding *experience*. Generally speaking, this is a project that seeks to analyze the experience of reading texts and the experience of using the digital medium. Specifically, we understand these two types of experience as iconoclastically incomplete. The reader's experience of incompleteness can be theorized tentatively as an experience of encountering incomplete images in the texts. His experience, moreover, is an interpretive experience; for the reader to be aware of these images' incompleteness, he must interpret, or come to a reasoned judgment, that the image he interprets is an incomplete one. Yet we also have a digital component to this project. Does the digital user, or the distant reader, also experience an incompleteness of the texts? Is this experience a digital iconoclasm that parallels the close-reader's iconoclastic experience? We offer the tentative thesis that the distant reader of Milton experiences incompleteness, yet instead of encountering the incompleteness of close-read images, the distant reader confronts the incompleteness of ScatterPlot-generated images of a set of texts. These ScatterPlot images are dispersive images that the digital reader registers as incomplete portraits of the texts. Therefore, we offer as our preliminary hypothesis that close-reading and distant-reading Milton leads readers to profoundly incomplete and iconoclastic experiences. This project intends to unpack the specific nature of these experiences.

    For us to study the iconoclastic experience, we must experience the textual and digital spheres ourselves. Our project will be divided into two teams; each team will concern themselves with one of the two spheres. In the first phase of this project, the distant-reading digital team will use the ScatterPlot program to run correspondence analysis (CA) calculations on the selected texts,

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[1] We will discuss an example of this sort of study in our environmental scan section.

[2] See Cortes, "John Milton, Incompleteness, and Digital Iconoclasm," http://pmcortes.wordpress.com.

and the close-reading text team will perform close readings on the selected texts.[3] The text team will also use a DH tool; they will use the annotation tool called Scalar as part of their close-readings.[4]

Moreover, after this first phase, each team will perform a methodological analysis. The digital team practices this analysis by analyzing the calculation and visualization methods of the ScatterPlot program. The text team practices their own methodological analysis by evaluating their individual assumptions of what they think to be an image in these texts, by asking how those assumptions affect their interpretive methods, and by describing how they proceed to interpret the texts. Ultimately, performing methodological analysis allows us to better understand the practices of distant- and close-reading. Since we posit the reading of Milton to be an iconoclastic experience, we want to investigate to what degree are our distant and close methods of reading iconoclastically incomplete.[5]

Our methodological analysis is followed by what we call the assessment stage. Each team will assess two things: the relevance of close-reading and distant-reading methods to Milton's iconoclasm and the relevance of the close-reading and distant-reading interpretations to iconoclasm. The assessment stage strives to be comprehensive for we will review the iconoclastic significance of our methods and interpretations.

It may appear that our project on the experience of iconoclastic incompleteness ironically seeks a complete definition of this experience. This is however not the case. We are instead striving to generate what we call supplementary understandings of iconoclastic experience. By this, we mean that our analysis of the close-reader's experience is supplemented by our analysis of the digital reader's experience and vice-versa. The close-reading of Milton, we argue, is so pervasively iconoclastic that this small-scale reading invites the supplementary large-scale of digital exploration. Let us clarify that "supplementary" does not for us mean "completing" but rather "adding" and "enhancing." Using the digital to analyze the text thus supplements, enhances, and adds a new layer of understanding to our close-reading investigations. Similarly, our close-readings supplement and introduce a helpful perspective that a distant-reading exploration could not provide. We are not interested in complete understandings but rather in supplementary ones. We thoroughly participate in the spirit of iconoclastic incompleteness. This is a project which values provisional and revisable conclusions. By committing ourselves to principles of provisionality and revisability, we believe we can come to form supplementary and evolving understandings of Miltonic iconoclasm.

Environmental Scan
The promise of this project is best elucidated by discussion of other projects whose methods and/or foci are in relation to our own. The projects related to our study include:

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[3] See "Work Plan" section for further descriptions of the ScatterPlot program and correspondence analysis.
[4] More information on the teams' usage of ScatterPlot and Scalar is found in the "Work Plan" section.
[5] Detailed descriptions of the teams' methodological analyses are found in the "Work Plan."

(a) Non-Digital Humanities Studies Precursor. A relevant predecessor for this project is Stanley Fish's well-known work *Surprised by Sin: The Reader in Paradise Lost*. In some ways, my work follows in Fish's reader-focused study. Fish argues that Milton "recreate[s] in the mind of the reader [of *Paradise Lost*]…the drama of the Fall, to make him fall again" (1), and the reader falls by being forced by Milton "to doubt the correctness of his responses [to the text], and to doubt the correctness of his responses" (4). The reader's fallen experience consists in never apprehending a firm understanding of the text. In our study we view the fallen experience as an iconoclastic experience, and we conceive the distant reading experience of Milton just as iconoclastic as the textual reading experience.[6]

(b) An Early Digital Humanities Study on Milton. We are thinking of Thomas N. Corns' *Milton's Language* published in 1990. Corns delineates the stylistic features of the sentence structure, lexical vocabulary, and word frequencies from Milton's corpus. Corns compares these three features with the sentences, vocabulary, and word frequencies of a control group of non-Miltonic texts. Corns chooses as his control group works that are "closely contemporary" to Milton's texts (8), and these non-Miltonic works are found in *Jacobean and Caroline Poetry: An Anthology* (1981). Through this comparison, Corns evaluates "elements of eccentricity or conformity" in Milton's style with respect to the style of non-Miltonic works (8). Corns used the computer program called SPSSx. This program performs data mining and statistical analysis on texts, and it was produced by SPSS Inc., a software company that was eventually acquired by IBM in 2009.[7] Though Corns and we both employ statistical analyses on Milton's texts, we do so for different purposes. Corns uses these analyses to evaluate deviations and norms in Milton's style. In contrast to Corns, our project uses statistical methods as part of our comprehensive study of digital and readerly experience.

(c1) Recent DH Studies with Related Methods: Multivariate Analysis and Style. Since the ScatterPlot tool we intend to use executes multivariate statistical analyses, another DH project employing this method deserves to be mentioned. I bring attention to David Hoover's article "Multivariate Analysis and the Study of Style Variation." Hoover uses multivariate analysis to explore variations in style in George Orwell's *Nineteen Eighty-Four* and William Golding's *The Inheritors*, and he also employs this method to test out if multivariate analysis can distinguish large and small sections of these two novels from large and small sections of other novels. He compared Golding's and Orwell's novels against Ford's *The Good Soldier* (1915), Forster's *Howards End* (1910), Lawrence's *Sons and Lovers* (1913), and Maugham's *Of Human Bondage* (1915). He concludes that his tests are "uniform enough" to attribute the sections of each novel to the proper author (345). To conduct his analysis he used MINITAB (1999, Release 12.2, Minitab, Inc., State College, PA) (343). He relied on this program to run cluster analysis of the 50, 100, 200, 300, 400, 500, 600, 700, and 800 most frequent words. Hoover also ran principal components analysis (PCA) that showed 400-600 most frequent words in the six novels, and rendered the results of PCA in scatterplot diagrams. While MINITAB may indeed be useful in

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[6] It is rather ironic that we regard Fish as a predecessor to our digital humanities project, since he is well-known for mounting critical attacks on the digital humanities field. For example, see Fish, "Mind Your P's and B's: The Digital Humanities and Interpretation."
[7] See "SPSS" and "SPSS, Inc," Wikipedia: The Free Encyclopedia.

such a study as ours, the Voyant Tool Scatterplot tool just as well can provide reliable and analyzable data.

(c2) The Stanford Literary Lab Pamphlets, "Quantitative Formalism: An Experiment" by Sarah Allison, Ryan Heuser, Matthew Jockers, Franco Moretti, and Michael Whitmore, and "Style at the Scale of the Sentence" by Sarah Allison, Marissa Gemma, Ryan Heuser, Franco Moretti, Amir Tevel, and Irena Yamboliev also base their conclusions on multivariate analysis and PCA-generated scatterplots. In the former study, the project participants, using the program Docuscope, conducted statistical analysis on texts to find a way to attribute texts to specific genres. They studied a corpus of 250 19th century British novels from the Chadwyck-Healey collection; their corpus included the genres of gothic novels, historical novels, national tales, industrial novels, silver-fork novels, and Bildungsromane, anti-Jacobin novels, evangelical novels, and Newgate novels (3). They ended up concluding that when the scatterplots showed features which are distinct to specific genres, these features "cannot offer new insights into [the] structure" of the genres (24). Rather, these features are "effects" of the specific genres, so the participants concluded that they could determine the different features specific to certain genres.

    In "Style at the Scale of the Sentence," they study style at what they call "the scale of the sentence" (3). The sentence for these authors is the "lowest level…at which style as a distinct phenomenon became visible" (3). In this experiment they used the same collection of 250 British novels and separated the sentences into sentences containing dialogue, those containing narrative and dialogue, and those containing only narrative. Through their use of scatterplot-based analysis, they found "correlations between syntax and narrative, and syntax and semantics" (28). Our project differs from the Stanford Literary Lab's and Hoover's studies because we are interested in using scatterplot visualizations as part of our exploration of Miltonic iconoclasm.

(d1) Some Visualization-Oriented DH Projects. *VisualEyes* is a web-based authoring tool started up at the University of Virginia that organizes data, maps, charts, and images into interactive visualizations. These visualizations, according to the documentation on their website, "can reveal and illuminate relationships between multiple kinds of information across time and space." [8] We will describe two VisualEyes projects which visualize texts. *Notes on the Future of Virginia: The Jefferson – Short Letters, 1787-1826*, created by Scot French and Bill Ferster of UVA (2010), deploys geospatial mapping of a sample of the letters between Thomas Jefferson and William Short. This project maps out on a global map where the letters originated and notates specific themes that are discussed in the correspondences.[9] *Digital Yoknapatawpha* (2012), which is an ongoing collaboration of Faulkner scholars with UVA's Digital Media Lab, Institute for Advanced Technology in the Humanities, and SHANTI, intends to map out characters, locations, and events from Faulkner's 15 novels and 48 stories into an "atlas of interactive visual resources" for the purpose of studying "the acts of narrative re-creation Faulkner undertook." [10] The principal difference between these visualization studies and ours is that they are primarily concerned with producing geographic visualizations. The geographic elements of Milton's texts are not our focus. Nevertheless, our project is generally similar to these enterprises in that like these *VisualEyes* projects, we visualize texts in order to reveal new

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[8] See *Visual Eyes*.
[9] See French and Ferster.
[10] See *Digital Yoknapatawpha*.

meanings. In our case, however, we intend to discover new meanings that enrich and enhance our understanding of iconoclasm.

(d2) Visualization of the Bible. Conducted by Chris Harrison and Christoph Römhild, *Bible Cross-References* visualizes 63,779 cross references found in the Bible as semicircular arcs. Their purpose, as Harrison puts it, is to reveal "the complexity of the data [the cross references] at every level."[11] The *VisualEyes* and Bible Visualization projects do not seem to offer any analyses of their visualizations. These projects' final purpose is to publish these visualizations online for public use. In contrast, MiltonInc. intends to generate a comprehensive analytical report on the ways that distant- and close-readings are iconoclastic experiences.

Work Plan:

A. Documents:
    This project will focus on a limited collection of Milton's texts. We will perform digital and textual analyses on a select set of Milton's short and medium length poems.

The set of 18 short poems are:
"Sonnet 1" or "O Nightingale"
"Sonnet 7" or "How Soon Hath Time"
"Sonnet 8" or "Captain or Colonel"
"Sonnet 9" or "Lady that in the prime"
"Sonnet 10" or "To the Lade Margaret"
"Sonnet 11" or "A Book was writ"
"Sonnet 12" or "I Did but Prompt the Age"
"Sonnet 13" or "To Henry Lawes"
"Sonnet 14" or "To Mrs. Thomasen"
"Sonnet 15" or "On the Lord General Fairfax"
"Sonnet 16" or "To Cromwell"
"Sonnet 17" or "To Henry Vane"
"Sonnet 18" or "On the Massacre in Piedmont"
"Sonnet 19" or "When I Consider"
"Sonnet 20" or "To Edward Lawrence"
"Sonnet 21" or "To Cyriack Skinner"
"Sonnet 22" or "Cyriack, this three years day"
"Sonnet 23" or "Methought I Saw"[12]

The set of medium length poems are:
"On the morning of CHRISTS Nativity. Compos'd 1629."
"L'Allegro"
"Il Penseroso"
Lycidas

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[11] See Harrison and Römhild.
[12] Not all sonnets were included because these excluded sonnets were composed in Italian.

We will also employ the ScatterPlot program to read Milton's long work, *Paradise Lost*. The project members who will do the close-readings cannot be expected to close-read every single page of this lengthy text, so these members will be directed to read short excerpts of this epic. Specifically, they will be directed to read his first, second, third, and fourth invocations because in these invocations we can observe the speaker visualizing God, and as such these passages are relevant to our exploration of iconoclastic images in Milton's texts.

And since the close-readers will be reading the invocations, we thought it prudent for the members using ScatterPlot to visualize these invocations. In summary, the digital users will use ScatterPlot to analyze four sets—the short poems, the medium-length poems, all of *Paradise Lost*, and the four invocations—while the close-reading team, or the text team, will analyze the short poems, medium-length poems, and the invocations.

His other lengthier works, *Paradise Regained* and *Samson Agonistes*, unfortunately will not be considered in this study because we expect our close and distant readings of *Paradise Lost* and the short and medium length works to produce a multiplicity of results, such that including these other works in our study would not be feasible.[13] A separate project that devotes more time on these two other poems is perhaps needed.

B. Staff: Project Director Phillip Cortes. He will oversee the operations of the digital and text teams. He will also perform the duties of both teams: he will run ScatterPlot trials on one set of documents and will perform close-readings on one set of texts.

The Digital Team ideally will consist of four members, not including the project leader. Two of these four members should be students, either graduate or undergraduate, who should be substantially familiar with Milton's work. The other two members do not necessarily have to be Miltonists, but they should be undergraduate or graduate students who have intermediate-to-expert knowledge of statistical terminology, scatterplot diagrams, and mathematics as well as a deep interest in literary and humanistic inquiry. These latter two members' will clarify to the rest of the team the mathematical aspects of the scatterplot diagram. The digital team will implement ScatterPlot trials. One member will run trials on the set of short-length poems, one will run tests on the medium-length poems, another will focus on *Paradise Lost* as a whole, and the fourth will concentrate on the invocations. The project director will run trials on *Paradise Lost*.

The Text Team will consist of six members, not including the project leader. All six should be undergraduate or graduate students who know fairly well Milton's works. The six members making up this team will be divided into three pairs. The first pair will close-read the short poems, the second will study the medium-length poems, and the third will analyze the invocations. The project director will close-read the invocations. This team should close-read instances of images in Milton's texts.

C. Digital Distant Readings:

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[13] To add to this point, we decided not to include all of Milton's medium length poems to our Medium Length Set, since we wanted to limit the results from being too multiplicitous. Accordingly, we decided the four medium-length poems to be a good representative sample of his medium-length works.

Description of ScatterPlot Tool:

    The digital team will use the Voyant Tool ScatterPlot to conduct Correspondence Analysis (CA) on the poems.[14] CA arranges the documents into dispersive data points, and these data points are the most frequently occurring words. ScatterPlot can analyze up to 100 of the most frequently occurring words. Our ScatterPlots have been calibrated to diagram the maximum amount of 100 words, so we could get a fairly sizable data spread to work with. The two axes of these CA plots represent the two largest amounts of variability with respect to the average frequency of words, so the x- and y-axes represent the two most variable dimensions of the documents. Since we want to understand the user's relationship with the machine program, we will not ignore the mathematical aspects of Correspondence Analyses, and for this reason, our team's statistics and computer science experts will teach us the technical mechanics of these machine calculations.

C. Phase 1: Running the Texts Through ScatterPlot

    The digital aspect of the project unfolds in 3 phases. In Phase 1, our digital team will input the four document sets into the ScatterPlot program. Each set will undergo CA analysis.[15] The ScatterPlot Program allows the user to go back to previously run trials by exporting the results page to a saved URL address. Our team could then refer back to the URL address to review results. Moreover, the ScatterPlot allows the user to generate clusters. We will set the program to generate five different clusters, and each cluster, represented by a different color, is made up of words with associated or corresponding frequencies. Each set will undergo a total of eleven trials. Our Appendix contains examples of trial-run ScatterPlots. In the first trial, members will run the texts without a stop-word list. See Fig. 2-1 of a CA plot that is generated without any stop-word lists. Subsequent trials will add stop word lists. See Figs. 2-2 and 2-3 for plots that have taken into account stop-word lists. For the second trial, a stop word list of ten terms will be inputted, and for the third, ten more words will be added to the list. For each following trial, team

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[14] It should be noted that in the "Environmental Scan" section, we mentioned that Hoover's and Stanford Literary Lab participants' employed Principal Components Analysts (PCA). After reviewing their work, it seems to us that their PCA scatterplots are strikingly similar in orientation to the Voyant Tool's Correspondence Analysis (CA) scatter plots. If one runs a PCA using the Voyant Tool ScatterPlot, one would generate a plot that shows a clustering of data points that tends to slope in one direction, such that one could draw a line to track the slope. The plots in Hoover's study and the Literary Lab Pamphlets do not present data points that slope in a specific direction. Instead, their plots are more dispersive, and their appearance resembles more the ScatterPlot's CA dispersive diagrams. For further demonstration, see Figure 1 in the Appendix for an example of ScatterPlot PCA-run plot of Book I of *Paradise Lost*. As Figure 1 shows, ScatterPlot's PCA plots clearly indicate a slope going in one direction. Now then consider the ScatterPlot-generated CA plot in Fig. 2-1 of the Set of 4 Medium-Length Poems. In this CA, the image is more dispersive. We thought it necessary clarify that the ScatterPlot CA graphs are similar to the PCA graphs produced by Hoover and the Stanford Literary Lab analysts.

[15] As we noted earlier, ScatterPlot can perform PCA. For our purposes, running the texts using CA is sufficient. It would not be feasible to run a different calculation procedure, considering that our CA trials alone will produce many different graphs we will analyze.

members will add ten more words to the list, such that in the eleventh trial, the list will have grown to 100 words.

C. Phase 2: Methodological Analysis of Using ScatterPlot

    The team will perform this analysis once all the members have finished their eleven trials. The team as a group must engage in some fashion these questions:

1. How do CA calculations affect the way the texts are visualized? CA leads to visualized statistical correspondences, so what are the implications for the visualizations to be an arrangement of these correspondences?
2   Visualizations consist of clusters of words with corresponding frequencies. Should we understand visualization to entail a clustering?
3. Is there an analog for the act of clustering in literary studies? We pose this question to understand the machine visualization in more humanistic terms.
4. On this note, is there an analog for statistical correspondence in literary studies? We think of similarity, likeness, and artistic imitation of reality as possible concepts that can be used in comparison to the idea of statistical correspondence. Is the ScatterPlot image an imitative correspondence to the text? Are these analogous concepts we suggested workable concepts that help us better understand statistical correspondence through a humanistic lens?
5. How did the team members decide what words to put in their stop-word lists? How is digital visualization a product of inputting stop word lists?

The digital team is not expected to provide definitive answers for every question, but they are expected to treat each question as a jumping-off point for examining critically the methods of correspondence analysis, clustering, and adding stop-word lists.[16]

C. Phase 3: Assessment Stage

    This stage analyzes the relationships between method and iconoclasm and between interpretation and iconoclasm. In the assessment stage the digital team would consider how the methodological procedures of correspondence analysis, clustering, and adding stop-word lists bring about the iconoclastic experience of incompleteness. In what ways are the user's methods that he relies on iconoclastically incomplete? How are the distant reader's interpretations of the ScatterPlot statistical visualizations iconoclastic? Are his interpretations provisional? Does learning more about statistical calculations from the specialist members make his interpretations more complete and certain? Or do they still remain inconclusive? These are some of the questions that our digital team can explore in the assessment stage.

D. Textual Analysis and Close-readings:

D. Phase 1: Scalar and Annotating for Images in the Text:

    The textual analysis stage of the project will have a digital humanities component. The text team will use the DH tool called Scalar in order to annotate for instances of images in the texts. Although Scalar is usually used as an "open source authoring and publishing platform" where

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[16] We realize there might exist other key methodological components of using the ScatterPlot tool. Yet we believe that directing the digital team to focusing on just these three methods is enough to guide them towards generating substantial and compelling responses.

authors can compose "long-form, born-digital scholarship online," we will use Scalar for close-reading purposes.[17]

In this account, we will upload the short-length and medium length poems and the invocations from *Paradise Lost*. Text team members will then log-in to the account and make the close-reading annotations. Individual members will close read an image, and each close-reading of an image will have a comment page of its own. See Fig. 3-3 for a screenshot of a sample comment page that shows a close-reading of a single image from the medium-length poem *Lycidas*.

Moreover, because the project director, Phillip Cortes, owns this account, he has the authority to make the comment pages visible and accessible to other members. The text team members do not have the authority to make the comment pages visible on the site. In this way, an individual member will not see beforehand what another member has annotated, so his or her interpretations will not be influenced by exposure to another's. Only when all the members have finished annotating the images in all the poems, the project director will make all the comment pages visible, and when the members are in the assessment stage of the project, the members can examine online their total comments.

The project director has also undertaken the task of close-reading 22 instances of visual elements in *Lycidas*. This close-reading exercise is found in Appendix B. The reason for this exercise is to give a glimpse of the kind of intensive close-reading work that the text team members will do. The other reason is that doing this exercise helps the project director get a sense of the mechanics of close-reading methods and formulate methodological questions that the text team will engage in phase 2.

D. Phase 2: Methodological Analysis:

The text team will only perform this second phase once everyone has finished close-reading the images. The team must as a group engage in some fashion these questions:

1. How does your interaction with textual features of Milton's works influence your interpretation of the text's images? Treat "textual features" in a rather various sense, in which you will consider features, as various as versification, the arrangement of the lines on the page, punctuation and spelling, and the paper medium on which the words are inscribed. Do not expect every textual feature listed to play a direct, observable role in influencing your interpretations. Rather, gauge to what degree do these features bear a significant effect on your interpretations.

2. How do you determine what counts as an image in the text?

3. Most of the comments by the project director in the appendix are short statements. Do you find yourselves writing in a consistent length? Is there an expectation that you must write in a particular length? If so, does this expectation limit your interpretations? If you write in a consistently short length, then do your interpretations seem incomplete, fragmentary, and requiring further elaboration?

4. How do you define the style of your commentaries? Is there a method to your individual commenting? The project leader's commentaries are formulaic: first he writes the "line number," then a colon, then the quoted image from the poem, then another colon, and finally the interpretation and observation. Do you find yourselves commenting in a formulaic manner? If so, how does this formulaic, repetitive process affect your interpretations?

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[17] See "Introducing Scalar. Born-digital, open source, media-rich scholarly publishing that's as easy as blogging."

These questions suggest to us that the readers' interpretive methods may or may not be affected by these causes: textual features, assumptions of what an image is, writing length, and formulaic writing.

D. Phase 3: Assessment Stage:

The text team reflects on the relationships between method and iconoclasm and between interpretations and iconoclasm. Some questions this team can ponder are:

1. Do any of the four causes we listed play a part in making the readers' interpretations incomplete and hence iconoclastic?

2. If your commentaries are piecemeal and fragmentary in form, do their forms reenact an iconoclasm of incompleteness?

We should also share an intriguing discovery we made when using Scalar. The Scalar program has the function of visualizing pages. See Fig. 3-1 which shows a Scalar-generated visualization of the comment, or close-reading, pages related to the poem *Lycidas*. In this visualization, the label "Medium-Length Poem…" (full title is "Medium-Length Poem: Lycidas) has a line pointing to a dark orange box. This dark orange box represents the page that contains the *Lycidas* poem. The light orange boxes represent the twenty-two different comment pages. The gray boxes do not represent pages, but comments. Notice that the comments and comment pages weave towards the dark orange box representing the *Lycidas* page. This weaving indicates that the comments directly refer to the *Lycidas* page. What concerns us here is the fact that Scalar represents the individual comments and *Lycidas* text as box-like images. The box-like visualization is more apparent in Fig. 3-2, where one sees the comments arranged as grey boxes connected to the orange box that represents the poem. By visualizing the commentaries in these box-like depictions, the Scalar program invites us to think of these close-reading commentaries' forms as visualized box-like divisions. True, these boxes are connected to the poem, yet their box-like representations suggest to us that the commentaries are separated, or boxed off, from the original poem.

Just imagine more Scalar-generated visualizations where you see box-like representations of poems accompanied by box-like images of commentaries. Should this project proceed, the many Scalar visualizations of the close-reading commentaries form a counterpart to the ScatterPlot distant-reading visualizations of the texts. Of course, it should be noted that Scalar visualizes close-reading interpretations whereas ScatterPlot visualize the original texts, yet what does it mean that both DH tools respectively visualize the original texts and the close-reading interpretations of these texts as data points and boxes? Do these digital representations tell us something new about the Miltonic iconoclasm of experience? Analyzing these two groups of visualizations would undoubtedly produce intriguing questions—questions that both the digital and text teams will confront in the final phase of this project.

E. Phase 4: Review and Further Questions:

Here both team members will review their findings. This phase allows them the opportunity to perform comparative analyses of distant- and close-reading experiences. These teams should use as their guide this diagram:

user's use of machine   -   ScatterPlot visualization of statistics   -   interpretation of statistical visualizations

reader's reading of text   -   text's visualization of images   -   interpretation of images

Using this simple diagram, teams can compare user with reader, Scatterplot visualization with text's visualization, and lastly the user's interpretation of the statistical visualizations with the reader's interpretation of the images. These comparisons are comparisons of corresponding pairs: for example, the user's use corresponds with the reader's reading along the diagram.

 On this note, we have to address the Scalar images vis-à-vis the ScatterPlot images. These two are not exactly corresponding pairs. The former are images of written-up close-readings while the latter are images of Milton's texts. So Scalar images do not exactly correspond with the ScatterPlot images. Yet what would happen if teams compared Scalar images of close-readings with ScatterPlot images of texts? Such a comparison may provide us suggestive or provocative insights about the iconoclasm of digital and readerly experiences. By performing comparative examinations, the teams can offer a refined and intricate explication of these two experiences and hopefully specify the relationship of these two experiences to iconoclasm.

 These teams also can consider in this fourth phase whether or not the different sets of poems yield different kinds of images. The digital team could explore, for instance, if the words in the ScatterPlot images of the short poems differ from the words in ScatterPlot images of the medium-length poems. The text team could question whether or not close-readings of the invocations' images differ from close-readings of the medium-length poems' images. If both teams do find significant differences among the sets of poems, then our understanding of iconoclasm becomes more complex and thus more incomplete.

F. Method of Evaluation:
 We will perform self-evaluations of our project after each phase. By doing so, we would be determining the weaknesses and strengths of each phase. Thus, the digital team members, for example, will evaluate the effectiveness or ineffectiveness of their ScatterPlot trials, and the close reading team will evaluate the effectiveness or ineffectiveness of their commentaries. We could evaluate if separating the poems into sets based on length is an effective or faulty methodology. We will determine if the project's work plan is organized appropriately, and if we are able to engage in each phase the problem of iconoclasm.

G. Second Run:
Once we have completed our self-evaluation session after phase 4, we will perform the whole project again. We want to observe whether or not we will generate different conclusions. More importantly, we will take into consideration the insights gained from our self-evaluations when we carry out a second run of the project. We expect our evaluations will help us better structure and improve our project, so we decided that performing this project a second time will be an opportunity for us to administer more refined analyses. As we noted in our "Narrative," we value revisability, and repeating the whole project, to quote from the first line of Milton's *Lycidas*, "yet once more" allows us to revise the methodological procedures and interpretive conclusions of our first run. If we are to commit to the spirit of iconoclasm, we must resist the temptation of being satisfied with a complete resolution. We must be willing to rethink our ideas and begin again.

H. Final Dissemination:

The final dissemination of this MiltonInc. will be a report that collects, summarizes, and communicates our findings. The report could be one submitted to a digital humanities journal , or it could be uploaded online in a blog site. The report could be in the style of the Stanford Literary Lab Pamphlets: just as these pamphlets are a series, we foresee our project unfolding into a serial publication. We could publish a report on the iconoclastic nature of one methodology and then another report on the iconoclasm of the distant reader's interpretations of the visualizations. This project is of course in its speculative stages, and perhaps the advantage of speculation is that it permits us to appreciate and cultivate our provisionally incomplete ideas.

I. Budget[18]

Time Plan, Work Hours, and Salary Figures:

Salary: $20.00 per hour.

Digital Team, 4 members, not including the project director:
Phase 1, Running Texts through ScatterPlot: 11 trials, 24 hours for $480. Each member must complete his or her trials within the 24 hours he/she will be paid.
Phase 2, Methodological Analysis: 12 hours for $240. Each member must finish this phase within the 12 hours he/she will be paid.
Phase 3, Assessment Stage: 12 hours for $240. Each member must finish this phase within the 12 hours he/she will be paid.
Total Hours per Member: 48.
Total Salary per Member: $960.
Total Amount allotted for all Members: $3840.

Text Team, 6 members, not including the director:
Phase 1, Commentaries: 24 hours for $480.
Phase 2, Methodological Analysis: 12 hours for $240.
Phase 3, Assessment Stage: 12 hours for $240.
Total Hours per Member: 48
Total Salary for each Member: $960.
Total Amount allotted for all Members: $5760.

Phase 4, Review and Further Questions, both teams: 12 hours for $200.
Total Hours per Member: 12
Total Salary for each Member: $240.
Total Amount allotted for members of both teams, not including the director: $2880.

Method of Evaluation (for which members will also be paid): Since they self-evaluate after each phase, they will self-evaluate for 12 paid hours, wherein they will evaluate for 3 paid hours after each phase.

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[18] Unfortunately, we could not input this budget into the NEH sample budget form.

Total Hours per Member: 12.
Total Salary for each Member: $240.
Total Amount, not including the director: $2400.

Second Run, 10 members, not including the director:
Phases 1-4: 60 hours.[19]
Total Salary per Member: $1200.
Total Amount for all Members, not including the director: $12,000.

Total Hours in All per Member: 132
Each member will thus have a total stipend of $2640.
Additionally, the project director will be allotted the same amount of $2640 given to an individual member.
Total Funding for all members, including project leader: $29,040.
Other Funding that might cover other issues, such as when team members may not have access to technology and may also need to cover transportation costs to get to a place with technology: $1000.
Total Funding Required: $30,040.

Time Plan: Each member will be paid for 132 hours of work. Hypothetically, each member can work for two hours per day, five days per week, and complete this project in 13 to 14 weeks. Minimally, the project should last for two quarters. If project members decide to disseminate their project in the form of a report, then their project might last longer than two quarters. We are unable to calculate the time and cost of publishing a report. The budget and time plan thus only account for the first and second runs of the project.

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[19] The second run will not include self-evaluation sessions, so there will not be an extra 12 hours in this second half. The evaluation session of the first run should sufficiently help us improve our project.

Appendix A:
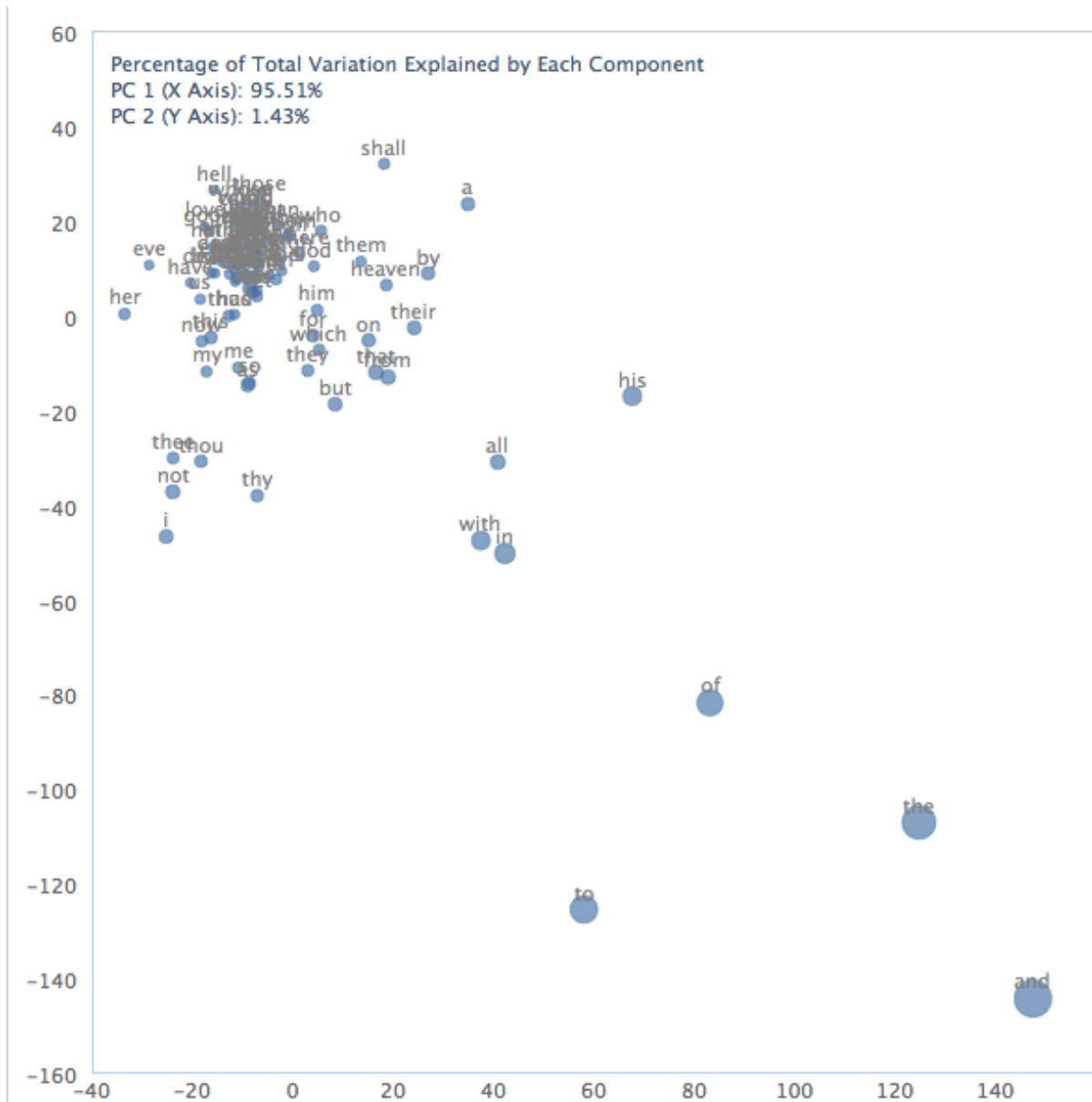Beneath figures 2-1 and 2-2 are short sample interpretations and speculations of these ScatterPlot graphs.

Fig. 1: A ScatterPlot-generated Principal Components Analysis (PCA) of Book I of *Paradise Lost*.

Fig. 2-1: ScatterPlot-generated Correspondence Analysis (CA) of Four Medium-Length Poems. A stop-word list has not been applied to this diagram. Circles represent words; diamonds represent the document, which in this case is the document titled "Medium," short for "Medium-Length Poems."

Notice that Figs. 2-1 through 2-3 represent variable images. Adding stop word lists yields changeable representations, and in this way, the distant reader does not encounter singular, complete image of the texts. The experience of running multiple trials is iconoclastically incomplete since in every trial the distant reader encounters a new image and hence can never secure a stable, fixed idea of these texts. The ScatterPlot reader must inevitably engage variable revisions of the original texts.

Fig 2-2: CA plot of Medium-Length Poems with stop word list of "the, "and, "of, "with, "to, "in, "that, "or, "a," and "on" applied.

There is indeed a sense of incompleteness in how the program represents only the statistically most frequent words and leaves out the statistically infrequent. We only see a small slice of the text, and it's this small slice that distant readers of ScatterPlot images interpret. Distant readers' interpretations are undeniably incomplete, yet by focusing on this incomplete statistical slice, readers can build whole new interpretations of the texts. For instance, readers can ask what it means to group the word "voice" and "world" together in the magenta-colored cluster. Readers can then go back to the original poems, analyze the contexts within which these two words appear, and determine if these words' contexts are related in any manner. Focusing, thus, on the

incomplete slice becomes a way for readers to return to the text. Iconoclastic experience invites readers to continued speculation.

Fig. 2-3: CA plot of Medium-Length Poems with stop word list of "the, "and, "of, "with, "to, "in, "that, "or, "a, "on, "his, "her, "as, "their, "from, "all, "but, "he, "was," and "not."
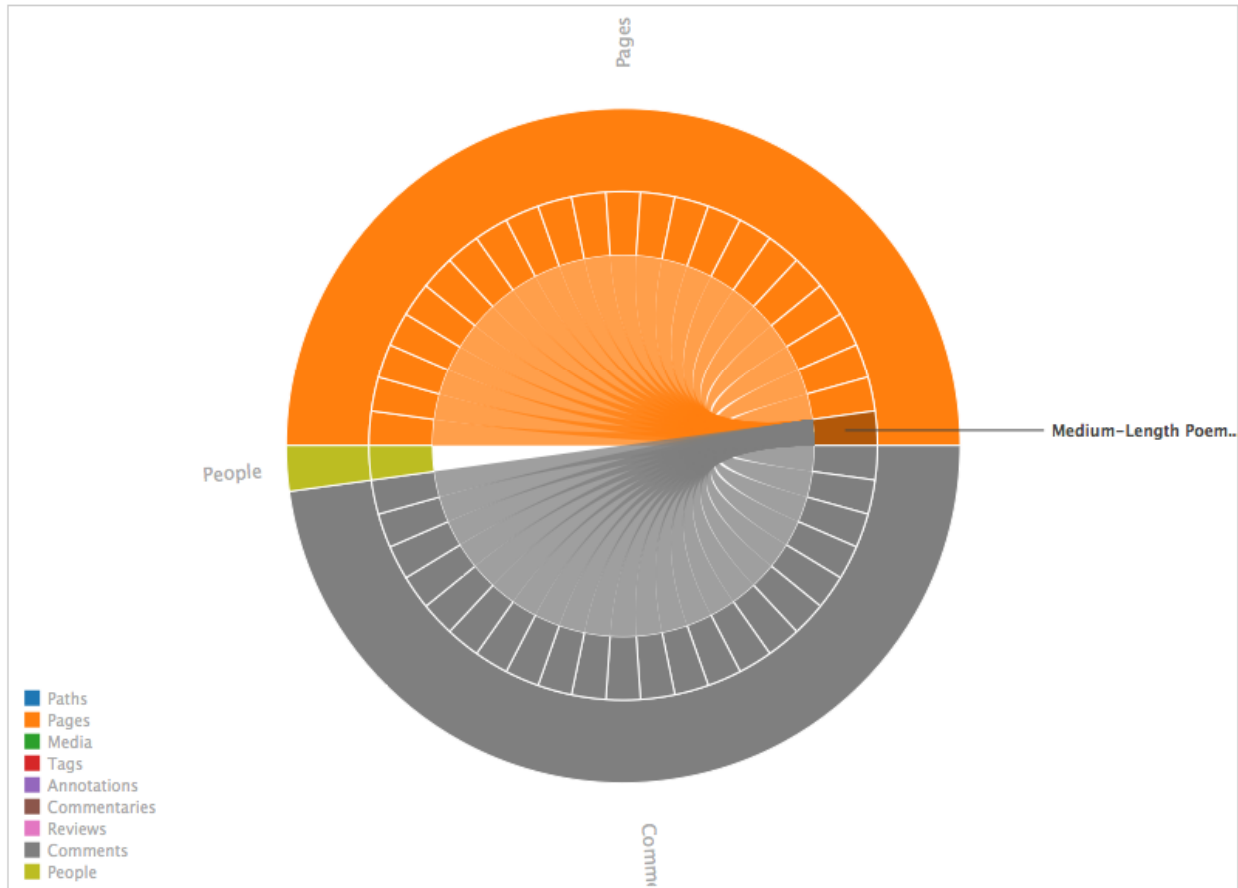
Fig. 3-1: Scalar-generated image of *Lycidas* and commentaries on *Lycidas*. The *Lycidas* poem is represented by the label "Medium-Length Poem…" (full title is "Medium-Length Poem: Lycidas), which has a line pointing to a dark orange box. This dark orange box represents the Lycidas page. The twenty-two light orange boxes represent twenty-two different comment pages. The gray boxes do not represent pages, but comments. The yellowish box represents the user. Double clicking on the light-orange and grey boxes takes you to the comment pages. Double clicking on the dark orange box takes you to the poem page that is commented on.

All content, sorted by type. Roll over the visualization to explore. Darker colors indicate more connections. Click to select content and view its relationships; double-click to view.

Medium–Length
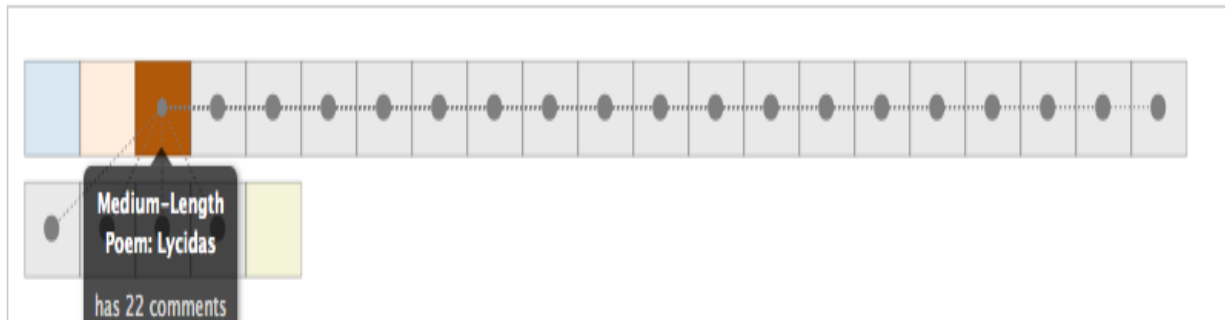Poem: Lycidas

has 22 comments

Fig. 3-2: Scalar-generated image of *Lycidas* and commentaries on *Lycidas*. The *Lycidas* poem is represented as the orange box, and the comments are represented as gray boxes. Double clicking on the boxes takes you to the comment pages or poem page.

Milton and the Incomplete

Phillip Cortes, Author

Phillip Cortes Sign out
You have Author privileges
Dashboard | Index | Guide

This comment was written by Phillip Cortes on 28 Nov 2013, 6:46pm PST.

Line 119

Line 119: "Blind mouthes!": A perplexing image. It would be more reasonable and sensible to say "mute mouthes." We see a forced marriage of two different contexts: sightlessness and the consuming organ.

💬 This page comments on:

Medium–Length Poem: Lycidas (28 November 2013)

💬 Comment on this page

Fig. 3-3: Double clicking on a gray comment box will take users to the comment page like the one above. This Scalar-generated page causes us to think of this close-reading commentary as a text unto itself. This text seems like a fragmentary, incomplete thought requiring further elaboration.

Appendix B:

The following contains the close-reading exercise that the project director performed. The purpose of the exercise was to help the director formulate methodological questions that text team members can ponder in their methodological analyses.

Here are twenty-two comments; each comment has its own Scalar-generated page in the Scalar account.

Lycidas Commentary:

Line 2: "Myrtles Brown, with Ivy never-sear": color image followed by ivy image which is described via negation.

Line 5: "Shatter your leaves": It's rather strange to say the delicate leaves are shattered. I am implying "leaves" are delicate, but could their texture be comparable to a hard vase? Probably not, but if leaves are vase-like, then saying vase-like leaves are shattered would sound more reasonable. Nevertheless, it sounds unreasonable and even incomprehensible to say "shatter your leaves."

Lines 12-14: "He [Lycidas] must flote upon his watry bear / …welter to the parching wind, / Without the meed of some melodious tear": The first two lines present an easily comprehensible image of a body afloat on a bier shaken about by the wind, but the third line's "melodious tear," a liquid image qualified by a phonic sense, introduces a fanciful element testing reason.

Lines 24-25: "ere the high Lawns appear'd / Under the opening eye-lids of the morn": Image of high elevation suggests a large-scale magnitude, and this is followed by the image of the sun "opening eye-lids of the morn," yet the large-scale sun is figured as the small-scale "eye-lids." We have a miniaturization of an image here.

Lines 30-31: "Star that rose…bright / Toward Heav'ns descent had slop'd his westering wheel": "Rose" makes the reader expect an image of a star ascending, but "descent" and "slop'd" invites the reader to think of the star descending. This is an image that subverts our expectations and understanding.

Lines 42-43: "The Willows..Haxle Copsees green, / Shall now no more be seen": The reader is introduced with color-images, but in the next line, the reader is directed that these images now will be out of sight. Are these images whose visibility is ephemeral and expiring?

Lines 43-49: "Shall now no more be seen, / As… / Frost to Flowers, that their gay wardrop wear, / When first the White thorn blows; Such, *Lycidas*, thy loss to Shepherds ear" : The thought of expiring images is continued to the point where the vibrant "Flowers'" visibility is about to expire due to "Frost." Note also that when readers read "thy loss to Shepherds" for a brief second may cause readers to expect "eyes" to follow "Shepherds" because readers have been reading lines about images, but instead readers' expectations are subverted with the use of "ears" instead.

We witness lines which are obviously fascinated in talking about images, but their fascination is immediately cancelled by a shift from the visual to phonic association of "ears."

Lines 52-56: "For neither were ye [Lycidas] playing on the steep, / … / Nor on the shaggy top…/Nor yet where *Deva* spreads her wisard stream: / Ay me, I fondly dream!": We have the negation of the mountain and stream images with the words "neither" and "nor," and this negation is qualified by the fact that the speaker says he is dreaming. These are dream images.

Lines 62-63: "His [Orpheus'] goary visage down the stream was sent, / Down the swift *Hebrus* to the *Lesbian* shore." : Ok, so a reader would be able to visualize this image's movement. There are place markers of "shore" and "stream" that help the reader locate the "visage's" progression. But remember that this is Orpheus, who was dismembered and beheaded by the Maenads. Keeping this mythological detail in mind, this image is a dismembered image, a fragment of a once living whole.

Lines 68-69: "To sport with Amryllis in the shade, Or with the tangles of Naera's hair?" : Images of darkness and entanglement.

Lines 75-76: "Comes the blind *Fury* with th' abhorred shears, / And slits the thin-spun life." : It is interesting to note that a visualizable image of someone cutting the thread of life is described along with the idea of blindness.

Line 77: "trembling ears": A curious description. It is strange to imagine ears "tremblings," in as much as it somewhat difficult to visualize this action.

Lines 78-79: "*Fame* is no plant that grows on mortal soil, / Nor in the glistering foil": The speaker metaphorically attempts to describe "*Fame*" via negation. The speaker happens to describe that Fame cannot be compared to plants growing, and plants growing can be interpreted as visualizable images. Yet this is an image that is made *not* to have a relation to "*Fame*." If we tease out the lines further, the speaker is saying, "Fame is no plant grows on soil or in the glistering foil." It is nonsensical to imagine a plant growing in the foil, and the speaker understandably negates this nonsensical idea. However, even though he negates it, why utter this nonsense anyway?

Line 85: "Smooth-sliding *Mincius* [a river], crown'd with vocall reeds" : Although it is easy for readers to imagine an image of a river crowned with reeds, it may be difficult for readers to visualize reeds that are "vocal." Readers can compensate for their difficulty by reasoning that the reeds are made "vocal" through the sound of water running, so that it seems as if the reeds are speaking. Even though readers have made this image reasonable, readers encounter a difficult image that demands further interpretation. More so, a visual image which holds phonic qualities confronts readers, and one asks if sound can be properly visualized?

Lines 104-106: "His [the river Camus'] Mantle hairy, and his Bonnet sedge, / Inwrought with figures dim, and on the edge / Like to that sanguine flower inscrib'd with woe.": An intricate image is presented. Readers reading up to "hairy" need further clarification as to why the river is hairy, and when they read "Bonnet sedge," they come to understand that the hair refers to rushes

or grasses. But what are "figures dim"? What is a "sanguine flower inscrib'd with woe"? The image of the river is made more complex with the addition of these latter two perplexing details.

Line 119: "Blind mouthes!": A perplexing image. It would be more reasonable and sensible to say "mute mouthes." We see a forced marriage of two different contexts: sightlessness and the consuming organ.

Line 130: "two-handed engine at the door": What is a two-handed engine? A terribly enigmatic image.

Line 138: "the swart Star sparely looks": The image of "swarthy" or "swart star" is an image that is barely visible, for how can one see the swarthy, or dark-skinned, light of a star. Additionally, this nearly invisible star "sparely looks," and one could also say that readers' vision of this dim shade of a star is of a brightness that is "spare."

Line 139: "your quaint enameld eyes,": A curious image. "Enameld" suggests opacity or semi-transparency. Readers come to visualize the image of eyes which can barely see through enameled gloss. Notice how readers can interpretively speculate these eyes "can barely see." The poem itself does not denote these eyes can barely see, but the reader is forced to impose an interpretation which makes this curious image sound relatable, familiar, and less strange.

Lines 136, 140-141: "Ye valleys low… / That on the green turf suck the honied showers, / And purple all the ground with vernal flowers.": The meaning is that the speaker beseeches the valleys to soak in the rain and become fertile. The reader visualizes the image of rain and fertilization. Although the reader must remember that the agent of "Ye valleys" which "suck[s]" the rains and "purple[s] the earth is introduced four lines earlier, so the reader must do a little bit of retracing in order for him to make sense of the image.

Line 144-145: "white Pink, and the Pansie freakt with jeat, / The glowing Violet": Readers see a commingling of different hues: white with pink and the presumably light-colored pansy with jet-black. And then there is the "glowing Violet," a luminous visual.

Line 154: "sounding Seas": There is a pun here, where "Seas" can echo "sees," and this punning effect ends up pairing two different senses of sight and sound.

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