Abstract

Though William Blake is a central figure in the academy, there is one particular area of his work that receives little attention: the marginalia. And when annotations are incorporated into Blake studies, scholars tend to turn for quotation to typeset Blake editions, which do not communicate the visual complexity of the annotations. In addition to being visually dynamic, the marginalia provide evidence of Blake engaging the printed book of the late 18th and early 19th centuries, and are thus part of his work as a book-maker. Blake's books are radically different technologies for representation than are the books he was annotating. Further, Blake's experience as a reader and annotator are reflected in his poetic universe, in which readers, writers and books figure so prominently.



Despite the degree to which William Blake has become a central figure in the academy, there is one particular area of his work that could benefit from further attention—or at least a different kind of attention than it currently receives: his marginalia. Study of the original annotated volumes sheds light on many of the issues that are central to Blake scholarship, including textuality, authority, systematicity and materiality. The annotations are themselves significant beyond their "content" (what we might call their referential or semantic value), for they are the traces that remain of Blake engaging with the printed page of his day; that is, the page produced from moveable type. The marginalia function as part of Blake's working through the possibilities for a radically different kind of representational technique and technology. Further, Blake's ideas about art and about what his art was supposed to do (its epistemological and ontological status in the world) stem in part from his experience with the conventionally printed books that he owned and borrowed from others.

I look at the way in which Blake's "anti-Newtonianism"—his opposition to finality, univocality and fixity—emerges from the marginalia, as it does from his other works, suggesting the degree to which Blake was working through problems of representation, and the role played by textuality and

materiality in the production of meaning, as much in the marginalia as in his other artistic productions. Blake's relation to Newton has been of central concern to Blake scholars for some time, thanks in large part to Donald Ault's Visionary Physics: Blake's Response to Newton, published in 1974. But Blake's marginalia have not been adequately integrated into this discussion. My approach to the marginalia and to Blake's anti-Newtonianism as two aspects of the larger issue of Blake engaging the problems and possibilities associated with representation (with the disjuncture between "imagination," as Blake called it, and materiality, for example) allows us to see how the marginalia are, indeed, central to the development of Blake's art. Additionally, I want to uncover the way in which Blake scholars (and scholars in other fields as well) have engaged the marginalia with little attention to their textual variability. The tendency to use the marginalia for their content alone is a product of there being no reasonably accessible edition (digital or print) that provides high-quality, photographic reproductions of the annotated volumes. Organizations like the William Blake Trust and projects like the William Blake Archive are working to provide scholars access to versions of Blake's work that are closer, in both visual and verbal dimensions, to Blake's originals. The marginalia could certainly benefit from this kind of attention and treatment as well.

Currently, however, Blake specialists, general readers and students alike, are left to read and to experience Blake's annotations as they are printed in typeset editions like

those of Sir Geoffrey Keynes, G.E. Bentley, Jr. and David Erdman. As I suggest below, having recourse only to typeset editions has had (and continues to have) serious consequences for Blake scholarship. In general, access to the marginalia in typographic format alone has hindered how the marginalia can be integrated as visually important documents into Blake studies. Yet even as the annotated volumes are scanned and digitized, and photographic reproductions made available, it will be important to approach them in such a way that certain traditional biases (towards "ideas" versus "materiality," or "content" versus "form") do not preclude our seeing some very important

aspects of the marginalia. My objectives here include drawing attention to the way in which typesetting Blake's marginalia makes certain modes of scholarship less or more possible and certain kinds of issues less or more accessible. And I explore the kinds of issues that do arise when annotations can be studied in their original context (or at least in high-quality reproduction).

There is, in fact, a history of attempts to make the marginalia available to readers in a form that retains something of their original look. In 1947, a letter arrived to Mr. Geoffrey Keynes from Josiah K. Lilly, Jr. It is a response to an earlier request by Keynes to have the volume of Francis Bacon's Essays Moral, Economical, and Political (1798), which contains Blake's annotations, in some way reproduced so as to facilitate research and study. Lilly's response is straightforward: "it is guite out of the guestion to do as you request" (Lilly). Lilly continues, "there are something over a thousand entries in Blake's holograph throughout this book, present on over a hundred pages, and it would be about as expensive to have these reproduced as the book is worth!" The estimation of a thousand entries is off the mark. Even a generous count would suggest that there are no more than two hundred entries by Blake—some as short as "A Lie!" Lilly is correct, however, in asserting that "the book is in very fragile condition." When I studied the volume in 2001 it was on the verge of coming entirely apart due to deterioration of the spine. I do not believe that the book could have been in good condition even in Lilly's time. He is also right that "the Blake" entries are in pencil, some of which are very difficult to read except with a magnifying glass." "I am just sure," he writes, "that several of the entries would thus not reproduce well at all" (Lilly).

Since in his final paragraph Lilly agrees to sell the volume to Keynes for "\$1,000 (U.S. dollars)," it is clear that Lilly stood to profit by asserting that the pages of the book could not be copied. The letters that Keynes and Lilly exchanged stand as testament to early efforts to study Blake's marginalia, and to the difficulties even then presented by the materiality, and the economics, of the situation. There really seemed no way around the necessity of having the actual book if one wanted to study the marginalia.

The Bacon volume was sold for a thousand dollars in 1948, as recorded in a letter of 3 August, 1948 from a librarian at the Yale University School of Medicine to Lilly. A handwritten note at the bottom of the page from the librarian to Keynes promises that "The library will dispatch the volume to you as soon as received" (Keynes correspondence). The letter with the note to Keynes is a copy of the one actually sent to Lilly, which of course did not have the note written on it. The Bacon volume is now in the Keynes collection at University Library, Cambridge. The letters are included in the book box which contains Bacon's Essays (Keynes U.4.20). The volume was dispatched to Keynes, and by 1957 Keynes published The Complete Writings of William Blake with Nonesuch Press; the volume includes the annotations to Bacon, along with other of Blake's annotations, though the annotations are typeset, laid out very much as they would be in later editions like Erdman's 1982 (and 1988) Complete Poetry and Prose of William Blake.

Annotations as editorial construction

In these editions, Blake's annotations are accompanied by a piece of the original text to indicate their "position" on the page and thus their "relation" to the original text. Erdman describes the format this way: "Excerpts from the works marked and annotated by Blake are followed by Blake's remarks in larger type" (583); and "excerpts from the [...] works annotated have been trimmed to the bare minimum necessary to show the immediate context of Blake's remarks" (883). It may be that such a format obscures more than it reveals, however. Certainly Erdman's layout does reveal one possible relation between text and annotation, but that relation remains, in many cases, an editorial construction. There are moments, for example, when such a format is quite misleading, since annotations, when they are typeset, can be placed with portions of text to which they may not directly refer, but to which they are visually close in the original. Or, as is often the case, one annotation may make a more general comment than is suggested when the annotation is paired with a short block of the original text. For example, Erdman provides the following from Blake's annotations to Watson's Apology for the Bible "(the smaller type is material from Watson; the larger type is Blake's annotation; the page designation, square brackets and material therein, are Erdman's)":

[BISHOP WATSONIIS PREFACE]

PAGE [iii]

... the deistical writings of Mr. Paine are circulated ... amongst the unlearned part of the community, especially in large manufacturing towns; ... this Defence of the Revealed Religion might ... be efficacious in stopping that torrent of infidelity which endangers alike the future happiness of individuals, and the present safety of all *christian states*...

Paine has not Attacked christianity. Watson has defended Antichrist. (Erdman, 612)

However, the annotation actually appears at the top of the page, not below Watson's passage. A double horizontal line (which is part of the page layout, not added by Blake) separates Blake's note from the text. Blake has underlined "christian states" but there is no textual mark that links the phrase with the annotation (elsewhere in the marginalia, Blake will use lines or brackets to indicate passages he is annotating). Since the note appears at the top of the page (and on the first full-text page of the volume), it would seem quite likely to be a general statement, not one necessarily tied to a particular passage. We can see quite clearly in this case how the annotations as presented by Erdman are often a purely editorial construction.

The inability of typesetting to convey the position of annotations on the page is problematic, though not the only limitation of the anthological format. As Keynes explains of his typeset annotations to Bacon, "Words underlined by Blake are printed in italic." And "Passages from Bacon are in smaller type" (Keynes 397). There is little sense to be had of the actual layout and look of individual pages, the size or style of the annotations or their legibility.

Legibility and audience

Indeed, legibility, which Lilly alluded to in the 1947 letter cited above, often presents great difficulty when studying the originals. That some of Blake's notes (but certainly not all) are nearly unreadable invites questions as to who, if anybody, Blake imagined would (or could) read his annotations. The annotation on page 1 in Bacon's Essays, for example, which surrounds the upper right corner of text, is written in pencil that is unsharpened and light (perhaps from having faded over time, though not all Blake's pencil annotations are so light). Erdman transcribes the passage. "But more Nerve if by Ancients he means Heathen Authors" (621). Keynes offers the same, but adds a period at the end of the statement, although there does not appear to be a period in the original (Keynes, 397). In this case, a word like "Ancients" (and even "Heathen" to some extent) is not decipherable in and of itself. The pencil strokes are simply too close together, and the pencil too dull. Under magnification the pencil marks blur to an even greater degree, making the words less, not more, readable. It is only by context that one could guess at the correct word; that is, the text being annotated provides clues as to the meaning of otherwise illegible words that appear in the margin. This annotation ("But more Nerve if by Ancients he means Heathen Authors"), for example, appears next to part of Bacon's text: "there be not so much blood in them as was in those of the ancients" (Erdman, 621).

This beas the rather intriquing question of just what such an annotation meant to Blake. Who was he writing for, if he was writing for any one person or audience all the time? It is worth noting that elsewhere in the marginalia Blake addresses readers (or a reader) directly. In Sir Joshua Reynold's Discourses, for example, Blake writes, "The Reader must Expect to Read in all my Remarks on these Books Nothing but Indignation & Resentment." Where the typeset marginalia present the reader with a sense of relative homogeneity among Blake's annotations, what we actually find in the volumes themselves is a wide diversity in terms of manuscript style, the care with which some annotations are written relative to others, and even choice of annotating medium (sometimes ink, sometimes lead pencil, sometimes both). Do we afford equal weight to all annotations regardless of their material diversity on the page? In the attempt to derive from the marginalia Blake's theories and beliefs, does the illegible annotation mean as much as the note Blake has written carefully and then traced over in permanent ink? My own sense is that definitive answers may not exist. A system for understanding the visual implications of the marginalia relative to their semantic importance is neither attainable nor desirable. Presently, however, the guestions themselves, along with the pursuit of many possible answers, is sufficient, since they have not. so far as I know, been posed before.

Can context be ignored?

The implications for Blake scholarship are crucial. When scholars use the annotations at all, they tend to treat them as they would any other of Blake's published work. Northrop Frye, in his Fearful Symmetry, goes so far as to assert the safety of quoting marginal material: "it is quite safe to use these quotations [from Blake's annotations] here" (15). It is important to consider what "safe" implies, though Frye's explicit point is that Blake's notations about Reynolds' "theories of painting" are relevant in terms of understanding Blake's theory of knowledge (14-15). Safety in this case suggests that the marginalia can be removed from their context in the figurative sense of transposing discussion of painting to discussion of epistemology. I am interested, however, in reaffirming context (not least on a literal level), particularly when it comes to deriving a "theory" or very general philosophical principle. Attention to context reveals even the degree to which the space of the margin itself is materially restrictive, quite literally constraining the degree to which Blake can offer, and then perhaps qualify, a response. Given the textual variability of the annotations themselves, along with their

materially constrained context, it perhaps becomes more difficult to assert a consistent Blakean "theory of knowledge," derived from quotations deemed "safe" by virtue of the tautology that they seem to fit the general, unified model. Frye's need to reassure that quotation from the marginalia is "safe" stands, perhaps ironically, as fair warning that such safety is not as straightforward as it may seem.

What do marginalia represent?

Indeed the apparent safety of the annotations when typeset—that is, their apparent regularity and legibility—leads to arguments which treat the annotations as a consistent "body" of work, just as Blake's Jerusalem, for example, is treated as a single work. The result has been arguments asserting that Blake's "philosophy," or indeed that the "whole of Blake" is available to readers in the marginalia. Since these arguments tend to depend on the regularized, typeset versions of the marginalia as printed in editions like Erdman's, they miss how textuality and materiality inform meaning. Thomas McFarland's "Synecdochic Structure in Blake's Marginalia" provides a good example of the way in which a certain kind of academic production is made possible by the regularized, typeset form in which the marginalia are currently available. As his title suggests, McFarland sets out to uncover in Blake's annotations the "whole of Blake" (79).² McFarland asserts that in the books Blake annotated in his lifetime, "the whole intellectual ethos of Blake stands revealed, if not in comprehensive detail then by implication" (76), and that readers "glimpse the part that represents the whole of Blake" (79).

Paul Valéry, writing about the marginalia of Edgar Allan Poe, asserts that "marginal notes represent part of the notations of pure thought" (177). Subscribing to Valéry's notion of the marginal note as pure thought, McFarland argues that "the marginal notations [...] reveal Blake's intellectual essence with peculiar directness" (76-77). Quoting Poe, McFarland writes that "in marginalia an author speaks 'freshly-boldly-originally'" (77). Working from Erdman's 1982 edition of Blake, McFarland cannot know that in Reynolds Discourses, for example, Blake made marginal notes in pencil and later traced some

over with ink (an issue I take up below). How "fresh" is a traced over marginal note? How "bold" is it to leave some untraced? And it is hard to know what "original" might mean exactly. Was Blake writing things he hadn't thought of before?

Things no one else had thought of before? Or just things he hadn't written down before? In any case, even McFarland admits that "marginalia [...] invade their host text" and "the marginal notation forces open the text" (78). It seems problematic to argue that a marginal note is both original but also deeply dependent on a host text. It also seems clear, based on the material variety of the notes themselves, that Blake is inconsistent in terms of the degree to which he thinks through an "independent" response to the text at hand, versus the degree to which an annotation is an immediate reaction entirely dependent on what might actually be a limited portion of the text he is reading.

Alternately, Blake's annotations to Swedenborg's Divine Providence reveal that he must have read some volumes through before annotating. For example, in his note to aphorism #185, Blake directs attention to #69, but also to "329 at the End," "& 277," "& 203." In #69 he directs attention ahead to #185, thus creating an interesting, almost hyper-textual, set of cross-references.³ It is thus impossible that Blake annotated as he read for the first time only, since he is able to call attention to numbers later than the one he is annotating. Blake does the same in his annotations to Lavater's Aphorisms on Man; he writes on the first page, "for the reason of these remarks see the last aphorism" (Lavater; my italics). It is thus clear that Blake must have returned to certain passages (or reread entire volumes), not necessarily making marginal comments upon first reading. Indeed, to cross reference, as Blake has done for numbers 69 and 185 in Divine Providence, suggests a good deal of thoughtful rereading. Thus, his reactions might not have been entirely bold or fresh or immediate.

McFarland asserts that "Blake's marginalia throughout are united by the common feature of synecdoche for his entire position" (86) and that "Blake's marginalia present, again and again, a synopsis of his entire meaning" (87). I believe that it is in large measure the regularity of typeset that invites the reading of one annotation as "synecdochic" (to use McFarland's term) of a larger body of thought, since all annotations are made to appear materially equivalent on the page. It is for me the questions surrounding how annotations exist on the page—their ontological status as textual and material marks—that seem more pressing than how or if annotations represent pieces of a stable whole.

Are marginalia ephemeral?

Attention to the materiality of Blake's marginalia is pressing if for no other reason than because some of the marginal notes Blake made, especially those in pencil, are literally disappearing from the pages on which they were written. Without this coming to public attention, even more of these documents will be lost than have already disappeared. Of particular concern is the volume of Swedenborg's Wisdom of Angels concerning Divine Love and Divine Wisdom in the British Library (shelf mark c45e1). In this volume, as in most others, Blake filled blank pages with his own writing; however, the blank flyleaf upon which Blake wrote is almost entirely faded and is now completely unreadable, even under 7x magnification. Infrared or X-ray photography, techniques which have been used on *The Four* Zoas, may be able to recover some of what has been lost. But Erdman transcribes marginal text in his Complete Poetry and Prose of William Blake that is now no longer visible: I assume he was studying the annotated volumes at some time at least prior to 1965 when his Poetry and Prose of William Blake was first issued. Erdman notes that "the pencilled paragraphs on the flyleaf have been badly rubbed or erased, possibly not intentionally; the words supplied within brackets [in the transcription] are conjectural" (884). Erdman's transcription offers two full paragraphs; only a few words are bracketed as conjectural. To my eye, however, those paragraphs have all but disappeared, save for at the very edges of the page where only portions of words remain visible. It seems unlikely that the words were or have been erased intentionally, but rather that the pencil marks have faded away. In addition to pencil annotations which seem to be fading entirely away, there are pages in the volume of Reynold's Discourses (British Library shelf mark c45e18) whose edges are deteriorating to such an extent that annotations themselves are beginning to literally fall away. The outer edge of the annotations in the right margin of page 67 (a recto page), for example, has deteriorated badly. What Erdman transcribes as "Generalizing in Every thing the Man would soon be a Fool but a Cunning Fool" (649), now reads more like, "Generaliz / in Every th / the Man w / soon be a / Fool bu / a Cunning / Fool." Page 64 has suffered during the process of rebinding. The bottom of the page has been cut so as to destroy some of the annotation.

Erdman's transcription reads "Age & Youth are not Classes but...<Properties> of each Class so are Leanness & Fatness" (E 648). However, after "Properties," all that remains of the last line is "Classes so are Leanness & Fatness." Page 71 offers an even more striking example: what Erdman transcribes as "let them look at Gothic Figures & Gothic Buildings . & not talk of Dark Ages or of Any Age : Ages are all Equal But Genius is Always Above the Age" (E 649) now reads, "let them look at Gothic Figures / & Gothic Buildings . & not talk of Dark Ages or of / Any Age : Ages are all Equal . But Genius."

Erdman also asserts that "Blake's notes [in Reynold's Discourses] were written first in pencil and later, with erasures and additions, in ink. Differences [...] between pencil and ink versions are treated as deletions and additions" (E 886). However, in a number of cases, the words that Erdman asserts to have been in pencil no longer appear, either to my naked eye or under 7x magnification. Curiously though, there are some pages on which the marginal notes have been quite clearly written over with ink yet the pencil remains visible beneath. Perhaps Blake used a different pencil for various annotations, and thus may have annotated at many different times throughout the course of his owning the book (perhaps over the span of a few hours, a few days or a few years). Erdman calls attention to the general assumption that "these marginalia are all of one kind written all at one time," though the variously faded pencil annotations suggest otherwise (E 886).

Further puzzling is the disparity between the care with which Blake inked some annotations but not others (assuming that it was Blake writing with the pen, and not someone later). Often, the original pencil is only barely visible beneath the pen; Blake seems to have carefully traced the shape of the pencilled note. Yet in other places, there appear to be double words (faint lines or ghost words), where Blake has inked a word into place, but has taken no care to follow the original's shape. For example, on page 74 Blake has inked over his original pencil note: "Here he is for Determinate & yet for Indeterminate" and "Distinct General Form Cannot Exist Distinctiveness is Particular Not General." However, the pencil is still clearly visible (written larger and more irregularly). Does allowing for this doubleness suggest that Blake was, consciously or otherwise, responding materially to Reynolds' argument at this point in the text for the generality of form? The "same" annotations exist, after all, yet are still visible as two distinctive sets of marks: one in pencil, the other in pen. Can it just be coincidence that this occurs for the annotation that reads,

"Distinct General Form Cannot Exist Distinctiveness is Particular Not General"? Further, did Blake have plans to erase the visible pencil lines (or did he know that some would, indeed, fade over time)? Or did he not care that they would show (but still cared enough to ink some of them over carefully)? I am certain that he was writing in pen so as to be more legible, not just more permanent, which suggests that Blake imagined an audience for at least some of his marginal notes.

There are a number of further questions that this re-writing raises which are worth pursuing, though they are perhaps no more definitively answerable than any of the others I've posed so far. First, to what degree might Blake have known that his pencil annotations would fade over time. If fading was not a concern, then why take the trouble to ink some over? In another situation, it appears that Henry Crabb Robinson, whose encounters with Blake are recorded in Robinson's Reminiscences, inked Blake's pencil annotations to a volume of Wordsworth, almost as if he (Robinson) too feared, or knew, that pencil would not be permanent. Further, what would persuade Blake to ink some annotations but leave others in pencil within a given volume? And what reasons might have caused him to not ink over annotations in other volumes at all (as in Berkeley's Siris, for example). I realize that there are more questions than answers here; it remains a considerable research project to discover some of these answers (if they are available at all).

Does annotation open discourse?

What remains clear is that Blake's annotations indicate a voice and hand trying to make itself heard and seen on the otherwise univocal page, though the force with which Blake wanted his voice(s) to be heard seems to vary greatly. That Blake took care to ink some of his annotations suggests he was consciously constructing a text of his own which would respond to the original, at points with as much force as the original itself asserted, and which would present to the reader a "text" (or better, multiple possible textual configurations) which was as viable and as authoritative as the original. It is in this sense of multi-vocalizing the otherwise univocal page that Blake's marginalia resonate with books, writing and reading as symbols he used throughout his poetry and thus why the marginalia deserve attention as, paradoxically, central documents in the field of Blake studies. Annotating should not be treated as an activity separate from any of Blake's other activities as an artist and engraver, particularly because Blake's own bookmaking techniques likely grewin part from his experience reading and annotating the books that circulated around him on a day to day basis.

The "book," for example, represents throughout Blake's work a multivalent symbol, one that is very often connected with authority and the assertion (usually auto-rhetorical) of that authority. Consider Urizen's command to Orc in The Four Zoas to "Read my books" (Night VII: line 90), or Urizen's statement in The [First] Book of Urizen: "Here alone I in books formd of me- / -tals / Have written the secrets of wisdom" (Erdman 72, lines 24-25). Blake's assertion (and insertion) of another perspective onto the seemingly finished page—the act of annotation—represents a serious challenge to authorial control which is vested in material control of "the book" and thus of meaning. It is in this respect, this disturbance of interpretive authority, that Blake's marginalia function as part of the anti-Newtonian element that pervades his work. If Donald Ault is right that the "Newtonian voice equates 'multiplicity' with 'confusion' and therefore needs to ground [its] direction of the reader's responses in a [...] need for reduction of multiplicity to univocality" ("Incommensurability," 162), then to annotate any text—to multi-vocalize the univocal text—represents a direct challenge to the drive toward Newtonian univocality. In this sense, the marginalia are extremely important in Blake's ouevre, since they offer material evidence of Blake confronting what is clearly one of the most important and complex symbols in his poetry: the printed book. The book is a symbolic site in Blake's work where the "Newtonian" relationship between readers and authors is enacted and contested, both by literal readers and authors, as well as by the fictional readers and authors that appear throughout Blake's poetic universe.

To say that the act of annotation is anti-Newtonian is not necessarily to argue that Lavater, or Reynolds, or Thornton, or Wordsworth or any author whose work Blake annotated, was necessarily "Newtonian" in the sense that they espoused Newton's ideas directly. What Blake seems to have sensed as a fundamental condition of communication in general, and of communication through art specifically, was the degree to which it participated, like it or not, in the Newtonian tendency toward fixity, stability and univocality. If there is something "Newtonian" about all communication, it is the inescapable necessity of fixing into place, of stabilizing, that which at some point was fluid and as yet unshaped.

What gives much of Blake's art its intensity is its awareness of its own participation even in that which it tries to work against, including finitude, fixity and stability. Yet the sense of always trying to work against the text as univocal authority (that is, text as speaker of its one "correct" meaning) pervades Blake's work, especially the marginalia. For as the links between reading, writing, books and authority throughout his poetry suggest, Blake was particularly aware of how the printed page could operate as a site of asserted, but also contested, authority. To disrupt the fixity of the finished page is to work against the drive toward univocality that, as Ault asserts, characterizes the Newtonian narrative.

To annotate a text is also to expose the limitations imposed by conventional printing, for there are blank spaces that conventionally type-set print does not enter. Especially when we consider the unconventionality of many of Blake's own pages, it seems likely that part of the critique operating as Blake annotated was implicitly of the growing system of "mass production" which took all kinds of texts and fitted them into relatively uniform moulds. In his Five Hundred Years of Printing, S.H. Steinberg notes that printing fonts in the "era of consolidation," as he calls it, from 1550-1800, gained "greater consistency" thanks to improvements in "the mathematical precision of design and in the technical manufacture of punches and matrices" (75). Not to say that all conventionally printed texts in Blake's time looked exactly alike, but there are, undeniably, blank margins and pages in all of the books Blake annotated, which have resulted from their being printed using the same general process. It was not authors themselves who required blank spaces; it was the exigencies of print economy and technology.

The Santa Cruz Blake Study group has identified the role played by the "editorial line of interpretation," in addition to "the exigencies of typographic economics," in the academic production of Blake ("What Type of Blake?" 305). This is, I think, usefully extended to include Blake's marginalia. As Blake makes abundantly clear throughout his work, he was particularly sensitive to the connections between industry, commerce and art. To fill a margin was to take advantage of that space left blank in the process of creating a text that could be mass re-producible. To some degree, this is true of almost all acts of annotation; however, it is particularly in the context of Blake's art itself that annotation-as-textual-critique emerges in this way, for his art demands such constant attention to the visual aspect of the page, and to the material processes which bring that page about.

In addition to asserting the importance of the marginalia as "works" that participate in the anti-Newtonian aspect which emerges in his art and poetry, I also want to pursue the intersection between annotating as Blake practised it and the activities carried out by certain characters in his poetry. Consider, for example, Blake's tracing over his own marginalia relative to the figure of Urizen in *The Four Zoas* whom Blake depicts as compulsively tracing his books. These books tend to represent self-defence mechanisms for Urizen, often against feelings of oppression (or attraction) he would rather not admit to. Blake writes, "For Urizen fixd in Envy sat brooding & coverd with snow / His book of iron on his knees he

tracd the dreadful letters" (VII: 1-3). And The Book of Urizen is, as Paul Mann writes, "a book about books" (49), suggesting that Blake's struggles with book-writing and -producing became subject matter for those books themselves. It seems that Blake's awareness of his habits as reader and annotator found their way into his poetic work. While I am not suggesting a direct, or conscious, cause-and-effect relation between Blake's annotating and motifs which appear in his poetry, there are certainly particular intersections which illuminate some of the implications of annotating as Blake practiced it, and which suggest the degree to which Blake's activities as an annotator informed the content of his poetry and his work as a bookmaker himself.

Annotating and/as tracing

In Night the Seventh of The Foar Zoas, Orc rages against Urizen. Orc is nailed to a burning rock, but Urizen is not similarly bound. "Why shouldst thou sit," Orc asks of Urizen, "cold grovelling demon of / woe [...] thou dost fixd obdurate brooding sit / Writing thy books [...] thy pen obdurate / Traces the wonders of Futurity in horrible fear of the future" (VII: 3-16). (The extension of Urizen's obdurate-ness into an obdurate pen suggests that one writes what one is.) And in the midst of Orc becoming a "Serpent form," and Los sitting in the "showers of Urizen," "Urizen tracd his Verses / In the dark deep the dark tree grew" (VII: 4-11). In these examples, Urizen is both writing and explicitly "tracing," though it is unclear if, each time, he is tracing that which he has already written, that which he's already imagined (though this possibility is complicated since writing often makes imagining possible), or if tracing is a form of displacement: writing what one has already written, but in a new medium. It is grammatically possible that Urizen traced his

verses in the dark deep in the sense that he was in the dark deep; that he traced onto the dark deep; and/or that "In the dark deep" describes where "the dark tree grew." The grammatical instability created by the absence of punctuation plays out relentlessly in the narrative interconstitution in Night the Seventh of Urizen's envy for Los and for Orc, his writing to control Orc, the eruption of the root of Mystery, Urizen's own entanglement in the labyrinth of roots and his compulsion to arrange his books around him. The book he does not arrange around him is the book of iron, which seems to become the rock of iron to which Orc is nailed:

Los felt the Envy in his limbs like to a blighted tree
For Urizen fixd in Envy sat brooding & coverd with snow
His book of iron on his knees he tracd the dreadful letters
While his snows fell & his storms beat to cool the flames of Orc
Age after Age till underneath his heel a deadly root
Struck thro the rock the root of Mystery accursed shooting up
Branches into the heaven of Los they pipe formd bending down
Take root again wherever they touch again branching forth
In intricate labyrinths oerspreading many a grizly deep

Amazd started Urizen when he found himself compassd round And high roofed over with trees. he arose but the stems Stood so thick he with difficulty & great pain brought His books out of the dismal shade. all but the book of iron Again he took his seat & rangd his Books around On a rock of iron frowning over the foaming fires of Orc (VII page 77 line 27 - page 78 line 14)

Again, it is unclear just what "letters" are being traced by Urizen, but the sense of a passage like this one seems to be that causation is a textual device. That is, Los feels Urizen's envy (for himself or for Orc) "like to a blighted tree" [my italics] following from which an actual root and branches erupt. One of Urizen's books is iron (a characteristic textually "caused" by the iron monsters that chase him) though he leaves the book behind, thus "causing" the rock he sits on to be a rock "of iron." The "logic" of textual causation means that the appearance of a word in the poem (a descriptive adverb like "iron," for example) allows for, or causes, the possibility for that word to appear again, sometimes in a very different context. It becomes difficult to say what specific effect Urizen's tracing has on narrative events, when tracing in fact creates the conditions necessary for certain events to occur at all.

Donald Ault, in Narrative Unbound, explicates some of the issues surrounding Urizen's books in The Four Zoas. They are books of iron and brass, which Ault asserts are "direct responses to the monsters [whose scales and fins are made of iron and brass] who devour his [Urizen's] path" (220). The books are, as Ault writes, "one solution to the problem of making a linear path in a pathless space" (220). In the context of The Four Zoas, Urizen's books are "a defense mechanism," a "remnant of his need to survive" (225). The compulsion with which Urizen traces (into) his books reflects his own attempts to deny, among other things, what Ault describes as Urizen's "subjugation to Orc" (245). Urizen's books, as they emerge from and submerge into, the narrative field, along with his compulsive tracing, tend to mark those moments where, as Ault writes, "Urizen's control is severely threatened" (221).

Questioning sequence—Questioning authority

Blake is careful to maintain "tracing" as the compulsive action as opposed to "writing," and so it seems reasonable to infer that Blake thought of the two activities differently. His practice of annotating as one that often involved both writing and tracing must have seemed relevant. Ault's analysis of Urizen and tracing makes it possible for me to draw a number of parallels between Urizen's activity and Blake's. Urizen tracing his books as part of his attempt to form

a path through otherwise pathless space resonates with Blake himself trying to organize the "pathless" or unused space of another's text, to create for himself a kind of space in which to move, to express his own thoughts or, more often, to arrange his own thoughts in relation to anothers'. Almost any text privileges one correct "path" through its pages; that is, there is only the one printed text to read. Marking in the margins is a way of creating an alternate path through the text by using the otherwise unused spaces. A substantial number of Blake's annotations are meant to oppose the primary text, inviting the reader's awareness, not just of alternate arguments, but of the way in which printed texts suppress those alternatives.

Blake's annotations open provide a different way of moving through the existent text; in this case, annotations act as directional devices as opposed to (or in addition to) functioning as direct commentary. It is obvious to note that books are paginated (or sections numbered) such that readers can move through the argument "properly" by following consecutive numbers. It is perhaps so obvious that it has become an aspect of the control that texts exert over readers that goes largely unnoticed. Jerome McGann, in Towards a Literature of Knowledge, asserts that "the printed book is one of the most illusionistic of human works, imputing as it does an aura of permanence to the discourses we manipulate" (12). Philip Cohen, introducing Texts and Textuality, writes "the layout, typography, binding, paper, and ornamentation of a book work in concert with or in opposition to the linguistic text they convey" (xvi). Just as Blake's annotations remind us that the original text suppresses certain arguments and perspectives in favor of its own, so too do his annotations remind us that a text relies heavily on maintaining typographic control over the reader. Often, by challenging the implicit authority a text has over how it is to be read one also challenges the authority a text exerts over its own meaning.

As I had mentioned earlier, Blake annotates the numbered entries in Swedenborg's Divine Providence by harkening to other numbers, sometimes earlier, sometimes later in the volume. The annotation to aphorism 198, for example, reads, "Mark this it explains N 238." More striking is perhaps the annotation to 330: "Swedenborg contradicts himself & N 69 See also 277 & 203 where he says that a Place for Each Man is foreseen & at the same time provided." Blake seems at once to be formulating his own path through the text, not only by inserting his own text in the space available, but also by suggesting that the reader can move among the numbered sections in ways other than by proceeding in "order." Indeed, Blake asserts that his path (to move from 330 back to 69, or 277, or 203) will reveal a contradiction in the existent text. Thus issues of textuality are important when it comes to the marginalia, since a book's appearance can have such a profound effect on the experience of reading. Seeing the way Blake has marked the printed pages of a book opens the possibility for considering how certain formal/textual arrangements control reading. Typeset editions of Blake's marginalia do not give readers access to the textual or material aspect of the printed pages as Blake marked and re-marked them. The degree to which the typographic features he encountered in his reading and annotating prompted him to develop a radically different kind of book technology for his own work has thus never been considered. Meaning is authorized not just by the author (though the Newtonian text will assume as much) but equally by the material conditions of the book itself. The Santa Cruz Blake Study Group suggests that "The effects generated by the emblematic characteristics of the book will constitute a significant part of the terms on which the contents of the book are offered and received" (311). And further, "Our ability to read has been conditioned by our familiarity with traditional linear text forms and "the consistent and powerful appearance they present" (310; my italics). It is particularly the "powerful appearance" of the book which plays such a crucial, yet paradoxically subtle, role in reading. Blake's marginalia function to call attention to the material

arrangement of books, even the regularity of their typeset, by occupying spaces that should not be occupied and by presenting an irregular script. Marginalia can remind us that our willingness to accept as authoritative that which we read is deeply conditioned by material appearances; in the case of Blake's marginalia, this occurs when material appearances are disrupted.

For Blake to ink his path, to mark dead or suppressed space and to assert a new text in the margins, are all particularly significant if we pursue the relation to Urizen's tracing in The Four Zoas. Such tracing may have been, for Blake just as much as for Urizen, a kind of defense mechanism, a kind of path making and finally a kind of assertion of control over that which he, as any reader, is ultimately subjugated to: the book itself as he/it confronts it/him. That Urizen is compulsive about his tracing and writing may speak to compulsions that Blake himself felt to oppose certain texts (and certain pathways through those texts) with a marginal text/pathway of his own. The annotations to Reynolds' Discourses suggest the anxiety and pressure Blake may have felt to respond materially to a figure he aligned himself so completely against. Given Blake's dislike for Reynolds, it is not surprising that in this volume particularly Blake took great care to ink into place those annotations which would go to form an authoritative voice (or set of voices) to rival that of the author.

In his annotations to Reynolds, Blake is also careful to reveal his own contextual position relative to the work he's reading and responding to. On the blank verso of the title page, Blake explains his position at length:

Having spent the Vigour or my Youth & Genius under the Oppression of Sir Joshua & his Gang of Cunning Hired Knaves Without Employment & as much as could possibly be Without Bread . The Reader must Expect to Read in all my Remarks on these Books Nothing but Indignation & Resentment....Reynolds and Gainsborough Blotted & Blurred One against the other & Divided all the English World between them Fuseli Indignant almost hid himself I am hid

(Reynolds)

Ironically, the last word, "hid," is itself almost obscured by the edge of the page. (Blake was running out of room, and the page is now deteriorating.) However hidden he felt though, it is clear that Blake is looking to set a text up that opposes Reynolds'. Even more revealing is the direct address to "The Reader"; here Blake seems explicitly confident that somebody will be reading the volume that he has annotated.

[He also addresses an imagined reader in an annotation on the last page of Lavater's *Aphorisms on Man:* "I hope no one will call what I have written cavilling because he may think my remarks of small consequence" (Lavater 224).] Whether they will be reading for Blake's work or for Reynolds' seems irrelevant to Blake's sense of his own words standing irremovably next to, above, below and around those of Reynolds. The care with which Blake inked over his original pencil notes makes it clear that he was envisioning a text that would stand in forthright opposition to, and with as much material permanence as the text that occasioned it.

Blank space in the text became for Blake the occasion to offer comment. The instance of the word "hid" becoming almost hidden (lost, actually) due to lack of room on the page is only one example wherein Blake had to arrange his marginal commentary as space would allow, under the conditions permitted by the material arrangement and dimensions of the book itself. In some cases, Blake's annotations completely surround the printed text (as on certain pages of Richard Watson's *Apology for the Bible*, for example); it is hard to imagine that in such circumstances Blake would not have developed responses further if the margin size allowed. Just as his notes are often deeply embedded conceptually in the text that they surround, and are thus in some ways controlled by that text, so do the material layout and dimensions of the original control the possibilities open for Blake to establish other voices on the page. However much Blake's annotations contest the printed text to which they respond, however, it is perhaps surprising that Blake leaves the original text itself for the most part untouched. In other words, he rarely "(if ever)" defaces the text he is annotating. One notable exception occurs in Lavater's Aphorisms on Man, though even here while Blake has crossed out certain of Lavater's words, they remain readable. There are occasional underlinings and brackets in the margins. For example, in the annotations to Swedenborg's Divine Love and Divine Wisdom, Blake uses large } shaped brackets to "collect" lines, next to which he writes "Note this" (sections 410 and 411) or "Mark this" (section 421). But Blake does not deface the original text. It is almost as though he was careful to preserve the original: the more accessible it remained, the more forceful his annotations would seem as oppositional possibilities. By multiplying texts on the page, rather than displacing one for another, the more dialogic and multivocal the page could become. And there remain, of course, those instances in which Blake's annotation, especially where that notation involved bracketing and underlining, required the original for its meaning. As in Blake's poetic universe, the writer/ annotator establishes a complex relationship to books; one that involves, by turns, conflict, opposition, dependence and agreement.

While he does not deface the text by rendering it illegible, there are pages on which Blake's extensive use of the blank spaces makes it almost impossible for the reader's eye to go to the original first and not to the annotations. At best the reading eye is pulled between the two texts, thus altering what would have been the original path of reading. On facing pages 126 and 127 in Blake's volume of Reynolds' Discourses, annotation encompasses the entirety of the margins surrounding the two pages. The entire left margin of 126 is filled, as is the footer, in addition to the entire right margin of 127 (and its footer). The annotation in Reynolds which runs the entire length of the left column of page 126 and into the bottom margin reads:

According to Reynolds Mich Angelo was worse still & knew Nothing at all about Art as an Object of Imitation Can any Man be such a fool as to believe that Rafael & Michael Angelo were Incapable of the meer Language of Art & That Such Idiots as Rubens: Correggio & Titian Knew how to Execute what they could not Think or Invent.

(Revnolds)

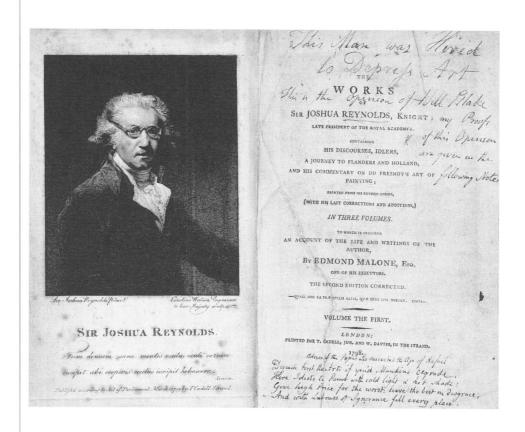
The actual line breaks as they occur because of the limited space Blake is working in are quite abrupt, following something like: "According / to Reynolds / Mich Angelo / was worse / still." Many of the semantically tricky spots in the typeset version, wherein one idea runs into the next, almost to the point that they are hard to separate, are much less severe when the line breaks are restored. For example, if we read "According to Reynolds Mich Angelo was worse still & knew Nothing at all about Art as an Object of Imitation," the next line "Can any Man" could read like a guestion: as in, "can any man know about Art as an object of imitation?" Reading on, however, we see that Man is actually the subject of "be such a Fool," yet again the possibility presents itself that Blake is asking, "Can any man be such a Fool as to know nothing of Art as an Object of Imitation?" Reading yet further reveals that the most likely sense of the lines is to break the first semantic unit after "Imitation," and that the next phrase actually reads, "Can any Man be such a fool as to believe that Rafael & Michael Angelo..." Restoring the line break—"Art as / an Object of Imitation / Can any / Man be"—makes Blake's notation seem much less like the collection of run-on sentences suggested by my typeset version above.

It remains clear that the margins provoked Blake to develop a textual "voice" that was going to be deeply connected to the text that occasioned it (just as Blake warns that the reader is to expect a direct response to Reynolds), yet which would vie with that text for equal importance on the page. In the Reynolds volume especially, there is the sense that Blake is constructing an identifiable, alternate voice (or, more properly, voices) to control as much of the page as it can, not just to comment on Reynolds' text, but to develop a position of its own.

Who is reading?

The guestion regarding who Blake might have imagined himself to be writing for is crucial here. In Blake's marginalia to Reynolds, we have a direct address to the "Reader." In addition, despite the limitations of space imposed by the margins, Blake's annotations contest for visual dominance of the pages. Blake writes on the Reynolds title page, in script much larger than the printed original, "This Man was Hired to Depress Art This is the opinion of Will Blake my Proofs of this Opinion are given in the following Notes" (figure 1). Blake is careful to name himself as author, just as he might do in any of his illuminated works. And the positioning of these lines in relation to those printed on the title page is uncanny. While he does not render the original unreadable, Blake has used the blank spaces between the printed lines to provide his own title page of sorts: what amounts to a centered title, "This Man Was Hired / to Depress Art," attribution, "This is the opinion of Will Blake," and subtitle, "My Proofs / of this Opinion / are given in the / following Notes." Further, Blake has underlined "Reynolds," perhaps to highlight that while the Discourses purport to represent the tastes of a larger community (one from which Blake felt particularly excluded) they are nonetheless the opinion of just one man. Blake even stylizes his lettering on this page: the "H" of "Hired" is complete with flourishes, as are the "D" of "Depress," and the "A" of "Art." The stylized lettering certainly challenges the uniform regularity of the typeset, and it does seem apparent that Blake took care in composing this annotation on the page.





It is perhaps no surprise that while Blake did leave some of his annotations to other volumes in pencil, it was in Reynolds' Discourses that Blake took care to ink some of his annotations, in most cases making them more legible, and in all cases making them more permanent. As Robert Wark points out in his edition of Reynolds' Discourses, the discourses "were prepared as formal lectures to the students and members of the Royal Academy [...] They were delivered [...] on the occasion of the annual prize giving." And significantly, "the Discourses were tantamount to a statement of policy for the young institution" (xiv). It was no doubt this sense of the discourses as communally instructional and as statements of policy that provoked Blake into mounting his own counter-statements of policy in the spaces available to him. Books throughout Blake's work are, as I've suggested above, representative of the power to authorize and stabilize law, rules, measurement and ideas. Blake may have found Reynolds' Discourses a kind of document whose "institutional" purpose was little different from that of Urizen's books. The Discourses were "statements of policy" delivered to students in order that they might learn to abide by that policy. Urizen's various books contained, for example, the "secrets of wisdom," the "Laws of peace, of love, of unity: / Of pity, compassion, forgiveness [...] One command, one joy, one desire, / One curse, one weight, one measure / One Kind, one God, one Law" (Book of Urizen Copy C, Plate 4, lines 25-40).4 Against the kind of insularity and singularity implied by the Discourses, Blake took care to present an alternate set of opinions, some of which he clearly took time to consider (presumably at least those he traced over in ink). By asserting explicitly that the notes represent "the opinion of Will Blake," Blake is able not only to foreground his own authorship, but also to remind the reader that the Discourses themselves are of singular authorship and that their authority to represent a communal taste is potentially suspect. Blake's explicit selfrepresentation may also be a reaction to the particular edition of the Discourses he had, which begins with "Some Account of Sir Joshua Reynolds," a biographical essay, some hundred pages long, celebrating Reynolds and his role in developing the artistic wealth and prosperity of England. Blake reminds, however, that Reynolds was "Hired," and might therefore be under compulsion to represent a position that is not entirely his own, just as students themselves will be expected to represent the Royal Academy's ideals. In fact, many of Blake's annotations refer to Reynolds' relationship to the aristocracy on the one hand (those who've hired him) and artists on the other (those who must defer to his authority). For example, Blake refers to "Sr" Reynolds and "his Gang of Cunning Hired Knaves" on the blank verso of the title page. On the page containing Reynolds' dedication "TO THE KING," Blake tellingly writes, "O Society for Encouragement of Art! O King & Nobility of England! Where have you hid Fuseli's Milton." On page civ of "Some Account of Sir Joshua Reynolds," Blake writes, "This Whole Book Was Written to Serve Political Purposes." Erdman suggests that unerased pencil on this page also reads, "[?First to Serve Nobility & Fashionable Taste & Sr. Joshua]" (E 641; brackets and italics are Erdman's). However, I was unable to see these words; they may have faded entirely. The annotations to Reynolds represent one of the best examples of all the volumes Blake annotated of Blake working to alter without physically destroying the original text, and to mount a text of his own in the spaces provided. His attention to detail, his address to the reader, his explicit self-presentation and the time it must have taken to ink some marginal notes into permanence show the degree to which Blake wanted to oppose Reynolds' text by producing an alternate text which demanded its share of any reader's attention.

I have tried to show here some of the important issues that I think surround William Blake's marginalia. In addition, I've tried to give a sense of how these kinds of issues remain inaccessible so long as readers do not have access to anything but typeset editions. Ultimately, Blake's marginalia need to become central to Blake studies. The issues at stake in the marginalia are inextricably linked to those at stake in the rest of Blake's work, and his activity as a reader and annotator certainly informed his work as a bookmaker. Finally, the treatment of Blake's marginalia in scholarship to this point may provide a keen lesson for other fields of study in the way that editorial and economic decisions can have profound effects on academic production by enabling or constraining certain interpretive possibilities.

^[1] Saree Makdisi has suggested that "the very way we have learned to read is precisely what prevents us from reading Blake properly" (111).

^[2] The methodology at work in Molly Anne Rothenberg's Rethinking Blake's Textuality provides a useful counterpoint to McFarland; Rothenberg asserts that "one of the principles guiding my work [...] is that Blake's corpus ought not to be regarded as a unity, as a product of a single intentional activity, nor ought it to be read as furnishing philosophical propositions" (2).

^[3] See my "Recentering Blake's Marginalia" for an alternate discussion of these issues (*Huntington Library Quarterly* Vol.66, 2003).

^[4] There are important issues surrounding the various plate orderings, inclusions and exclusions for this particular book. I address them more fully in other work, including "Blake's Awareness of Blake in a Newtonian World" (History of European Ideas) and my forthcoming The Torn Book: UnReading William Blake's Marginalia (Susquehanna University Press). Numerous other scholars provide thorough discussion of Blake's plate ordering; a key resource is Joseph Viscomi's Blake and the Idea of the Book.

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A reply to "The Mutamathil Type Style"

Nadine Chahine

Arabic typography has been the subject of much interest lately in international conferences and publications. The last few years have been especially interesting because of the new developments in technology, such as Opentype font extension and the development of the Unicode standard (Hudson, 2000). This has made easier a large number of the complexities of dealing with the Arabic script, such as the large character sets, context sensitivity and the application of vocalization marks. Here, an important question presents itself. If technology is no longer a barrier to the representation of the script, then what form should a type designer give to this work? Should one strictly adhere to the calligraphic and ornamental origin or is there a different way to look at things? Given that Arabic typography has had a long struggle with technology, today's situation is very interesting.

Calls for reform: Past and present

In the middle of the last century, the Academy of Arabic Language in Cairo sent out a call for proposals for script reform. Hundreds of replies came in, and all were rejected (Yacoub, 1986).

It is guite understandable that no major changes to the script were accepted. As Wellisch (1978) explains, "once a writing system has been successfully established for a language community, its underlying conventions become essentially indivisible, all-embracing and intolerant of any other convention." This is so much so that it would be "impossible to replace an even unsuitable system with a better one geared to the character of the language." He also explains that change could come in the form of the addition or removal of a few characters, but that the writing system, in general, can be changed to another "only by force." Such forces could be religious or political. Greek, Latin and Arabic are examples of scripts that benefited from the powers of religion in order to spread geographically. The fact that the Latin and Arabic scripts are as widespread as Christianity and Islam says a lot about the connections between script and religion, and to a large extent, national identities (Wellisch, 1978). Therefore, when attempting to answer the question of why no solution was accepted, one should look at the proposed solutions, while keeping in mind that it is external factors that governed the final decision making. As such, it is impossible to discuss large-scale script reform without admitting to the influence of politics, religion and culture.

Some of the solutions were very impractical so it is no shock that they were rejected (Yacoub. 1986). As to others, each has its own advantages and disadvantages. It is very understandable that the call for the adoption of Latin would be rejected because it meant a complete dissociation with the past, especially in the domain of calligraphy. That alone would have been enough to discredit those proposals, no matter how earnest they were. The fact that the Arabic script is highly tied to Muslim religion makes it quite sacred, a fact that almost makes it untouchable for Arabs. Because the Koran was relayed in Arabic, any change to the Arabic script means a change to the way the Koran is written. This close association between script and religion could be the reason why no solution was chosen at all. Those that could have made sense (especially Nasri Khattar and Ahmad Zaki Mawlawi) were just too radical. It is highly probable that a less controversial solution was desired, a solution that would not change "the look" of the script, but would keep its essence. One can never know what really went on in the minds of the committee members. Still, it is probably no coincidence that Linotype would arrive with Simplified Naskh just a few years later, especially that the Linotype Matrix acknowledged various current attempts at script reform and the fact that the solutions looked strange or unattractive (Linotype, 1960).

The widespread acceptance of Simplified Naskh, a cheaper and faster way to print Arabic by using two forms per letter rather than the usual four, as compared to the failure of the Academy of the Arabic language can only confirm the conclusion that the Arab linguistic authorities were ready for a new solution and that the safe and familiar one eventually won out. Linotype had collaborated with a Lebanese, Kamel Mrouwa, on the project so it is again probable that he had been aware of what was going on for the past few years (Linotype, 1959).

Today, again, one reads about the simplification of the script through the "Mutamathil Type Style" by Saad Abulhab. It is a noble idea to undertake a project that aims to make a script easier to deal with. However, there are basic essentials that need to be addressed such as adequate knowledge of the technology of the day, the educational ramifications of any adjustment to the script and a basic understanding of typography and type design, whether Latin or Arabic.

The understanding of the Latin script

Abulhab starts his article with an introduction of his understanding of the Latin script. It is not the purpose of this reply to address that. However, some errors of judgment need to be pointed out.

"Typography is the art of automated calligraphy." p.306

"Current printed or visual Latin forms vaguely resemble the old ones. It is a challenge to read an old English or German book from a few centuries ago!" p.307

"Producing a font for the extended Arabic set today minimally requires the design of 500-600 glyphs, depending on type or calligraphy style, compared to no less than 200 glyphs to cover all Latin scripts." p.311

One might need 200 glyphs to represent the English language but that's not the only language that uses the Latin script. A font that supports Central and East European languages quickly exceeds that number, especially when one looks at all the accented characters that are needed to properly represent those languages. For example, Adobe's Minion Pro has 1246 glyphs, more that 700 of which are for the Latin script.

Technology

As mentioned in the introduction, there is very little that technology can't do for the Arabic script.

"It would be a mistake for non-Latin typography to settle forever on all the rules imposed by the current Unicode standards. The machine must not be forced to duplicate all and every detail of the old calligraphy." p.310

This seems to be a misunderstanding of what Unicode is. It is a plain text encoding (The Unicode Consortium, 2000). The Unicode standard gives one the freedom to fully represent calligraphy but certainly does not force one to do that. At the end of the day, it is the designer who draws the outlines, whether they are richly calligraphic or very simple in design. Unicode provides a way to deal with the various glyphs needed to fully represent a language; one can fill the boxes with whichever design one sees fit. A designer can even add more glyphs than what Unicode provides, as long as he/she does the proper substitution lookups.

Also, this statement is in contradiction with his opening definition of typography as automated calligraphy. One can't define typography as automated calligraphy and then complain that Arab designers are following calligraphy as a model.

"Ligatures that belong to the basic character set (e.g. Waw with Hamza)..." p.311

Lam-Alef is a required ligature, yes, but Waw with Hamza is not. It is not a typographic nicety that can be removed without resulting in a spelling error. It is a grammatical necessity and it is not a combination of two characters (though it looks like that) but a visual representation of the Hamza in a specific grammatical situation. A better name might be accented character, but not really. This is why it has a separate key.

"Mixing right-to-left texts with left-to-right texts can be a nightmare." p.313 This is true, but the situation is getting better thanks to the Unicode bi-directional algorithm (The Unicode Consortium, 2000).

"But the typewriter failed to move the Arabetic scripts into the typographic age. With the emergence of computers, the few positive typewriter-based attempts at simplifying the Arabetic written forms, quickly evaporated. Arabetic typographers were again busy duplicating calligraphy to its fullest detail in their type designs." p.315

There are several problems with the above statements. One, the typewriter was a very successful attempt to simplify the script and to deliver a working model that is cheap, reliable and preserves the look of the script. Two, it paved the way to Linotype's Simplified Naskh which is, again, a good working solution to print Arabic cheaply and with good quality of design (Linotype, 1959) and it is still very popular today as in the example of the widespread popularity of Yakout (Ross, 2002). Three, Arabic type designers might have wanted to be obsessive about full calligraphic details in the 80's and 90's but were not always so in reality, if only because of technical limitations. Now, they can be. Type design should not follow calligraphy blindly, but develop as a separate field of study.

At the same time, it would be rash to just ignore calligraphy completely for the sake of "new" designs. One needs to understand how the script is formed, its structure, the ductus, why the forms look the way they do. This can be learned by observing calligraphic models. When one comes to design one's own character set, it does not have to "look" like a replica of a calligraphic piece, but it should maintain the structure and the internal proportion of the script, and that is influenced by the tool that created it.

"The mutamathil type style proposes a technology-oriented, computer friendly, minimal type style." p.323

This is a bit vague. How can one be computer friendly? Is it like dolphin friendly tuna? The computer does what the user wants it to do. Also, technology-oriented seems to mean that it fully utilizes the capabilities of modern technology, yet the system Abulhab proposes goes out of its way to stay away from anything that does that. He seem to be designing for a technology that has long gone by.

"Incorporating this type eliminates all major and unique obstacles faced by articles of manufacture utilizing the traditional Arabetic alphabets." p.319

Glyph positioning lookups to position the vocalization marks are still needed. That is even more complicated than substitution. The way they are now is too floating. Their position needs to be locked to the proper character, at different heights depending on the design. For example, the "yalid" word he has in his specimen is confusing. The two marks are very close to the lam.

"The required right-to-left ordering, which is technically the main challenge facing Arabic typography..." p.318

That has not been such a challenge since the first printed Arabic book. Context sensitivity, the large character set and the vocalization were worse to deal with.

Education: The issue of bi-directionality 2

It would be common sense to assume that teaching people to read Arabic text from left-to-right might be misleading when these same people will have to read real right-to-left Arabic. The Greeks had a similar model a long time ago³ but they soon switched to a single direction. They certainly had a point there.

If people find Arabic strange because it is read from right-to-left, maybe they should put in some effort and get used to it. Knowledge is not a piece of cake that one eats in two minutes. One is expected to work hard to learn any new language or script. In a world being overtaken by globalization and the widespread example of fast food chains and large international corporations and vendors, it is a pleasure to note that people are different after all. It's a big world and people should celebrate the uniqueness of every culture, script or language, not try to modify its essence to suit global trends. It's a matter of mutual respect and tolerance.

It is true that the script is complex, but the solution to have it bi-directional adds to that complexity. Also, the many different forms are something that the eye can get used to, as one can see in every single literate Arab and non Arab (the number is increasing thankfully). The existence of too many dots is worse than the different forms because the dots can be erased, misunderstood, fall off...

It would be ludicrous to imagine an Arab designer proposing a symmetrically designed Latin alphabet that can be read from right-to-left so that Arab readers can learn English faster.

Though the script is complex, literacy rates are improving greatly (UNESCO, 1999). There is a lot that one can do before we blame the script. If people are interested in learning it, then they would put in the extra effort to get used to it. Typographers can help by studying legibility and by experimenting within the boundaries of accepted aesthetics, perhaps pushing those boundaries farther than expected, trying new things, but always remaining faithful to the essence of the script, its structure and its internal logic.

The concern to keep the natural feel of the script is understandable. Still, one of the "natural" qualities of a script is its inherent direction so how can reading Arabic from left to right with symmetrical letters preserve that quality? It changes the way one reads and even the location of the text in relation to the book. Also, how will people know if a text set in Mutamathil is left to right or right to left? The slight details to differentiate the two options are not visible enough except if one goes looking for them, and text should be transparent. Experienced readers will probably be able to guess because of the vocabulary, but new readers might get confused. It gets worse in the case of justified text.

The concept

If one tries to summarize the characteristics of the Mutamathil type, it has two main ones: 1) it is unattached and 2) it is bidirectional.

The issue of bi-directional has already been discussed. The issue of unattached is not really debatable. It's been done before and it is not a script reform as much as a typographic simplification. As such, there is no problem there and it really is an extra option on the menu. It would probably work more in display typography rather than in text settings though.

The problem, though, is that the Mutamathil type still has some of the problems that Abulhab stated were the reason why the simplification attempts were not successful. For example:

"Some of these designs truly violated the spirit of Arabic writing and ignored legibility."

"Many ignored addressing the vowel diacritics completely."

"... all glyphs failing to include the important visual effects of the traditional letters joining/non-joining process."

Also, his assessment of the reasons why these failed were unfair to Nasri Khattar's work:

He did advocate an open design system and designed his system in several styles. He did *not* approach type design calligraphically. He did *not* insist on the ligatures (Khattar, 1947).

The reasons why his solution was not accepted are more complex as explained earlier.

The design

The design is changing some of the fundamental structures of the characters (like the dal) to the extent that they are almost unrecognizable, let alone readable. The fact that they are symmetrical has taken the direction out of them so they seem not to form words, just a string of static forms. The eye doesn't know where to go.

Abulhab might not claim to be a type designer, but in reality, he is offering a typographic product, and as such one cannot ignore the look of it and the way it functions.

There are a few design problems:

- the rhythm is abrupt and truncated
- the internal proportions need some changes
- the lam doesn't fit the typeface
- the hamza is not recognizable
- there are too many little details that create tension, especially the truncated descenders
- some characters are very strange: gaf, dal, waw, lam, sin

The proposal that less symmetrical design is possible is a better idea but what happens to the people who are introduced to Arabic as a left to right script? They will have to flip things around in their head when they start reading real Arabic. On a personal note, I found his example of left to right text hard to read but fun to look at and try to guess what's the text, but he chose the most common sentence to Arabs (the bismillah) and I'm a native reader.

It is very easy to list the many problems that Arab readers face and say that yes, the script needs to be reformed. However, such musings are still based on what linguists or laymen say. If one were to agree to that, then what should one reform? The problems are many and solving all of them would completely change the script. Should one, then, recognize which problem is the most serious and try to solve only that one? Would that be the

diacritics or the context sensitive forms? How can one judge? Technical complexities are not problematic anymore but the Arabic public, though literate, still does not read many books per year (UNESCO,1999).

It is very important that people address the various problems that Arab readers face. Whether such questioning leads to fruitful results or not, the journey is still worth the effort, if only to make way for further questioning and investigation. Arabic typography is in dire need of research and study and it is crucial that such endeavors are encouraged and supported through institutions of higher education, research centers and publications.

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^[1] One example would be the long afternoon session dedicated to Arabic typography in the annual Atypl conference in Vancouver in 2003.

^[2] As a matter of clarification, on a technical level, the Arabic script is defined as bi-directional because the numerals are written from left to right while the text is written right to left. However, that is an established tradition of the script and is accepted as the norm.

^[3] Known as boustrophedon reading in which the reading direction alternates from right-to-left to left-to-right. This is different from the Mutamathil system in which the text is set in only one direction throughout the whole paragraph. Still, it is cited here as an example of a system that supports changing directions.