

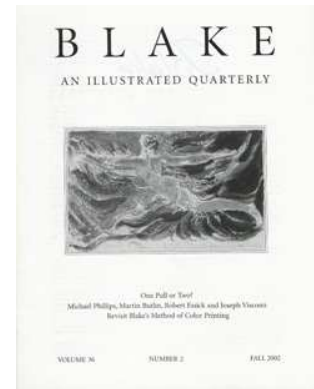
# AN ILLUSTRATED QUARTERLY BLAKE

D I S C U S S I O N

## Blake's Method of Color Printing: Some Responses and Further Observations

Robert N. Essick, Joseph Viscomi

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the other towards an engraving technique by which he could dispense with color altogether.

Such questions necessitate a much wider approach to this short but radical period of technical experimentation than one confined to the establishment of whether Blake used an exclusive one-pull process or a two-pull process. I do not claim to have answered all the points raised by the Inquiry, let alone to have proved that Blake used an exclusively two-pull process. What is necessary, however, is that those with the skill and technical expertise to research this question should distance themselves a little from the technical details and approach the subject impartially in the light of Blake's development as a whole. Research along these directions cannot but be more enlightening for our appreciation of Blake's achievement.

## Blake's Method of Color Printing: Some Responses and Further Observations

BY ROBERT N. ESSICK AND JOSEPH VISCOMI

*Authors' note: An online version of this article, with illustrations in color, is available on the journal's web site at <http://www.blakequarterly.org>. Readers interested in the full pictorial evidence supporting the views expressed here are encouraged to consult the online version.*

"Labour Well the Minute Particulars, attend to the Little-ones"<sup>1</sup>

We are pleased that a scholar of Martin Butlin's eminence would find our long, technical essay on Blake's color printing of interest. We are also pleased that, in his reply, he does not take exception to any of our basic arguments in favor of one-pull color printing or question their evidentiary basis. Rather, he raises several issues related, if somewhat peripherally, to our topic, continues to favor a two-pull process, and proposes a new method for two-pull printing distinctly different from the methods offered by Michael Phillips in his recent book, *William Blake: The Creation of the Songs from Manuscript to Illuminated Printing*. We wish to comment on Butlin's observations seriatim as they arise in his essay.

Butlin notes that "the concentration" of our article "on technical detail" missed out the "more general considerations

1. William Blake, *Jerusalem*, plate 55, line 51. *Complete Poetry and Prose*, ed. Erdman, 205. Hereafter cited as "E" followed by page number.

of Blake's overall development in the 1790s" and left "several important questions unanswered." Our essay indeed concentrated on a single issue raised by Phillips' book, Blake's color printing of relief-etched plates. This topic, however, covers more than 600 impressions in ten books and touches on one of the major goals in Blake studies, that of understanding Blake's practice and thinking as an artist. More general considerations of all the techniques Blake deployed in his illuminated books, and the evolution of those books into the large color prints of 1795 and finally into the tempera paintings of the late 1790s, would take a book-length study. We (and we suspect the editors of this journal and most of our readers) found our article long enough as it is. The fact that most of the large color prints are planographic (i.e., printed from the surface), and that the temperas were painted (not printed) on their supports, does not alter the way Blake color printed his relief etchings. We continue to believe that questions about print technology are best answered by looking closely at the primary evidence (in this instance, color-printed impressions of Blake's relief etchings), by conducting experiments in the print studio, and by contextualizing one's findings within the history of color printing in the eighteenth century. Connoisseurship that produces only the most general comments ("looks like two pulls to me and my friends"), or rounding up the opinions of various scholars and taking a vote, are not as helpful. Technological issues are best resolved by considering "technical detail," even if this tends to bore or annoy some of our readers. But since Butlin has raised questions about the color-printed intaglio plates and color-print drawings that followed the color-printed relief etchings, we feel compelled to answer them, which we do later in this response.

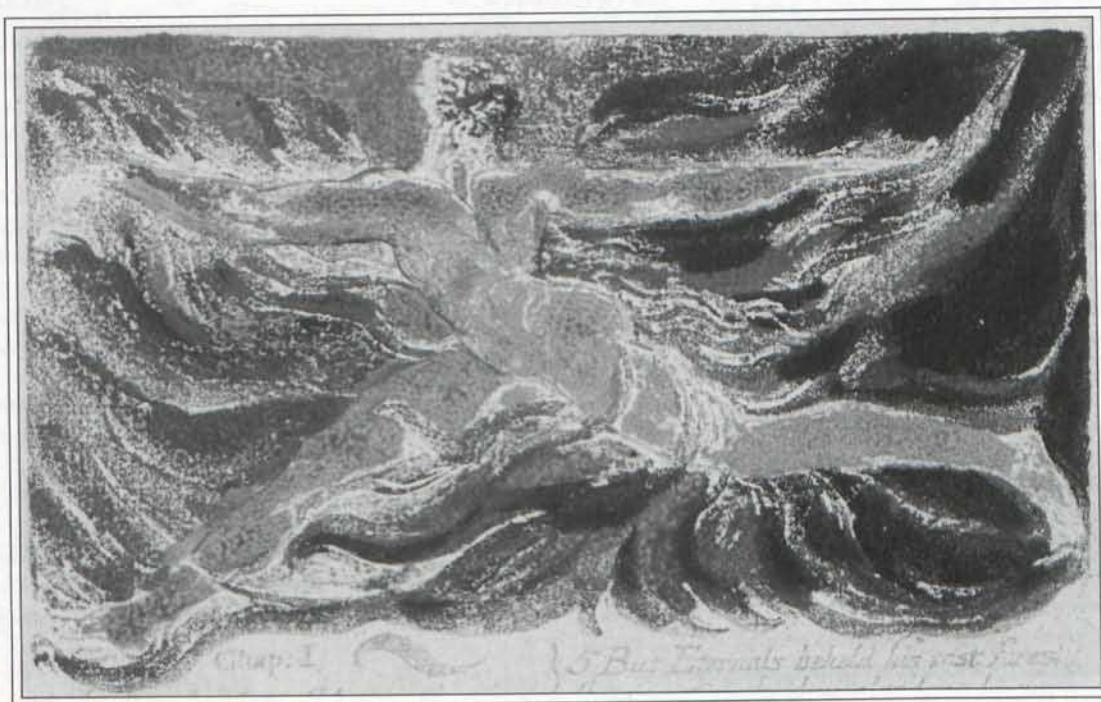
Butlin's second paragraph forces us to quibble over the meaning of "prominent." As we pointed out in our second footnote, several scholars, including Butlin, had indicated a belief in a two-pull process prior to Phillips' book. These earlier comments are brief and not even "prominent" within the essays and books in which they appear. It seemed to us discourteous to critique those who had only mentioned the two-pull process in passing and had not offered any supporting arguments or evidence. The history of the two-pull theory prior to Viscomi's 1993 study, *Blake and the Idea of the Book*, appears to be one of those cultural traditions that many assent to but none investigates. Surely Phillips must be credited with the first, prominent attempt to make a case for the two-pull theory.<sup>2</sup>

2. Butlin refers throughout his response to an online version and a "significantly revised" print version of our essay. He is confusing the final online version with an early draft of the essay (15 October 2001) that the authors put online for the purpose of eliciting responses from curators, scholars, print historians, and other invited guests. The published online version (February 2002) and the print version are the same essay, except that the latter has fewer and only black and white illustrations and some of the captions and descriptions of the illustrations are altered to take that into account.



# BLAKE

AN ILLUSTRATED QUARTERLY



One Pull or Two?

Michael Phillips, Martin Butlin, Robert Essick and Joseph Viscomi  
Revisit Blake's Method of Color Printing

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We apologize to Martin Butlin for not including his review of Viscomi's book in our footnote 2. It was an oversight on our part, not an egregious attempt to slight Butlin's great contributions to Blake scholarship. As far as we can discover, that review contains Butlin's fullest statement, prior to his present essay, in support of the two-pull theory—a paragraph of 206 words. There he refers to the “badly registered” impression of “Nurses Song” in the *Experience* section of *Songs of Innocence and of Experience* copy E and claims that “having made such an error, Blake could easily have succeeded in the not very difficult task of producing a perfect register.” As we have made clear in our article, producing a “perfect” register, one that shows absolutely no signs of the first pull even under magnification, is, impression after impression, an extraordinarily difficult task indeed, even for the eighteenth-century French masters of multiple-plate (and hence multiple-pull) printing and for twentieth-century masters of color printing, such as Stanley Hayter, who says without qualification that it is not possible (see below). Butlin's reasoning seems to be that an example of poor registration argues for Blake's easy mastery of perfect registration. The logic here escapes us.

Butlin also notes in his paragraph that Viscomi's “argument, based on the white lines left where the paper failed to pick up the color at the base of the sharply etched relief lines [see cover illus.], could apply irrespective of whether there were one or two printings.” This is true but misses the point concerning registration. These fine white lines parallel their relief lines. When they are produced in a second pull, experiments reveal, they will intersect minutely with their relief lines. It is impossible, impression after impression, to so perfectly register the paper to the copperplate that these very narrow white lines remain perfectly parallel. Minute intersecting or touching of white lines and relief inked lines signifies a second pull, but it is a sign consistently absent from Blake's color prints.

According to Butlin, our failure to cite his review, or more generally our “approach” in footnote 2, “is symptomatic of the Inquiry as a whole.” He has a point, in that our concern was with an investigation of the primary evidence rather than with recording every word ever published on Blake's color printing method. Perhaps if we had concentrated more on that publication record rather than on Blake's own prints we would have remembered and added Butlin's review to his other works we cite. We trust that we have now made up for our original oversight. However, given the nature of our approach to the subject, our failure to cite his review is irrelevant to our case for one-pull color printing.

Butlin expresses discomfort over our “restricted definition” of “Illuminated Printing.” We were concerned with establishing what Blake meant by “Illuminated Printing” in his 1793 Prospectus and not trying to determine how the term should always be used. We are not arguing against the use of the term to include later works with unetched plates printed planographically (*The Song of Los*, 1795), or those

printed from plates etched in intaglio (*The Book of Los*, *The Book of Ahania*, both 1795), although Blake did not apply the term to *The Gates of Paradise* (an intaglio work of 1793) in the Prospectus (E 693). In our contribution to the festschrift for Morton Paley, which we co-authored with Morris Eaves, we claim only that Blake “christened his works in the medium [of relief etching] ‘Illuminated Books’ in ‘Illuminated Printing’” (220) in the 1793 Prospectus. This does not exclude the possibility of Blake so christening works in other media in some other document, nor does it exclude modern scholars from using the term any way they wish, nor does it restrict the historical and theological resonances of the word “illuminated.” We fail to see how we have perpetuated a “restricted definition.” We can't understand how the simple statement that Blake called his relief-etched works “Illuminated Books” in the 1793 Prospectus shows how “quickly ... a theory becomes an assertion of fact” (Butlin).

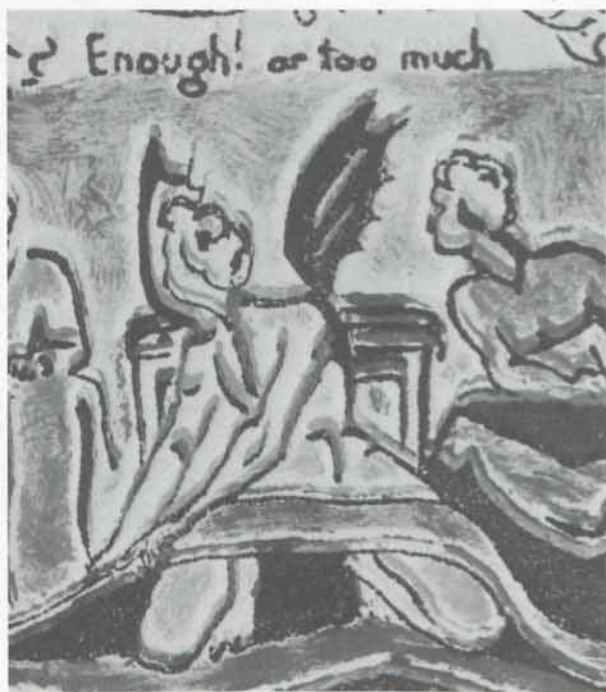
We find it odd that Butlin believes that “Nurses Song” in the *Experience* section of *Songs of Innocence and of Experience* copy E “is not color-printing at all in the usual sense.” Phillips believes that this impression is color-printed, and so do we. Otherwise, it would not be the center of so much attention. The disagreement we have with Phillips is whether the colors were applied with the ink in one pull (Essick and Viscomi) or separately in a second pull (Phillips). Apparently Butlin agrees with us about which pull produced the color printing—the first one—but misses our point. He quotes our saying that “Yellow ink on top of green color means that the inked text was printed *after* the color printing in green” (97), and from this he concludes that “in other words, it is not color printing at all in the usual sense.” He appears to have ignored the rest of the passage:

... after the color printing in green—the reverse of the sequence Phillips proposes for all two-pull color printing. On even closer examination, one can see why Blake printed the text after he had printed the colors. He was actually *reprinting* the text. He had printed the plate *à la poupée* with ink and colors together, in the style of the other color-printed plates. ... The colors printed well but the text was exceptionally faint and illegible. ... Blake attempted to re-ink the text and print or stamp it into place ... (97-98)

The registration, however, was poor; the newly printed plate was displaced below its first, exceedingly weak, printing. The ink traces of the text's first printing are clearly visible in illus. 34a and 34b of the print version and 68-70 of the online version of our “Inquiry.” In other words, the plate was initially printed with ink and colors simultaneously, like all the others; had it been printed well, there would not have been a *reprinting* of text after colors. But perhaps this is not color printing in the “usual sense” because for Butlin the only “usual” method of color printing requires that the colors be applied in a second pull.

It is true that our “Inquiry fails to take up Phillips' point (103) that ‘small failures of registration in colour-printing





1. *The Marriage of Heaven and Hell*, plate 10. Handmade relief etching based on Blake's design, 15.3 x 10.1 cm., color printed in two pulls in oil-based ink and water-based colors. Detail of devil showing visual effect of very slight misregistration of second pull, with colors and ink slightly misaligned. Printed 24 July 2002.

can also be seen in other plates in Copy E of the *Songs*" (Butlin). This is the sort of general comment in which the advocates of the two-pull theory specialize. Which plates? Where in each plate? What is the evidence supporting this opinion? Where is the "overwhelming evidence" (mentioned in his "Correction," printed in this issue) that Phillips states exists but does not describe? We looked through *Songs of Innocence and of Experience* copy E (and other color-printed books and prints) with considerable care and could find no further examples of misregistration or signs of a second printing. We believe we failed in this search because Blake printed all plates, except for "Nurses Song" in *Experience*, in one pull. We dealt at some length in our article with various types of foul inking, found in monochrome impressions as well as color-printed ones, that can be mistaken as evidence of misregistration.

Dörrbecker's claim that some of the full-page designs in *The Song of Los* were "coloured-printed from almost unetched plates, occasionally in multiple layers of paint" (319) does not, as Butlin states, necessarily imply "multiple pulls." Multiple layers of color-printing medium can be painted on a copperplate and printed in one pull (see, for example, the ground beneath the figures in plate 10 of *The Marriage of Heaven and Hell* copy F [illus. 7]). The crucial distinction is between colors printed from the plate and those applied to individual impressions. The two can be differen-

tiated on the basis of their very different textures (see illus. 2). This is indeed the case with *The Song of Los*. We can find nothing in Dörrbecker that supports a two-pull process or is incompatible with a one-pull process, yet a consideration of his comments leads Butlin to assert that "exact registration is therefore hardly a consideration when discussing Blake's usual form of color-printing. . . ." Further on in his essay he claims that "precise registration is not in question."<sup>3</sup> We contend that exact registration is precisely the point, and we suspect that Phillips would agree, given his statements that "multiple plate colour-printing demanded exact registration" (96) and that "Blake's method also required precise registration" (97). If the registration were not exact, then evidence for the second pull would be easily observed throughout Blake's color printing (illus. 1). It is self-contradictory to claim, on the one hand, that precise registration is not the issue and tacitly admit, on the other hand, that with one exception there is no evidence of imprecise registration in Blake's color-printed relief etchings. The issue is not decided only on the basis of general "muzziness" (Butlin), but on specific evidence provided by offset texts (even if one printing is only a subtle blind embossment of the text), multiple platemarks, the nonparallelism of white escarpment lines, and displacements between the image printed in the first pull and the same image printed in any subsequent pull.<sup>4</sup> We can find such evidence throughout the vast majority of eighteenth-century, nineteenth-century, and twentieth-century prints that were printed in multiple pulls through the press. With the sole exception of the impression of "Nurses Song" noted above, we can find no such evidence in Blake's color prints. Hence, we conclude that he did not print his plates more than once to create his color prints. We have verified this conclusion by printing facsimiles and recreations of Blake's relief etchings, intaglio etchings, and monotypes in the *à la poupée* method that replicate Blake's various visual and textural features (see illus. 5a, 6a, 13, 15, and 18, and in the print version of "Inquiry," see illus. 5a-b, 6, 11, 29, 33, 35a-c, and in the online version, illus. 18-22, 26, 28, 49, 71-73, and 76).

Butlin next claims that, having "forgotten one of Viscomi's most important discoveries" about edition printing, we cast the two-pull process "in its worst light by making it as complex as possible." He accuses us of assuming that Blake would have to wipe the plate clean of ink before adding colors and then wipe colors before adding more ink ("Inquiry" 80). Again, he appears not to have read the "Inquiry"—or

3. Butlin has apparently changed his mind since 1995, when he alluded to "perfect registration" in his review of Viscomi's book.

4. Butlin apparently believes that if you apply colors only to the illustration and not the text, then only the illustration will print and a slight misregistration (or "muzziness") won't be noticeable. But the uncolored text still stands in relief as the plate is reprinted and it subtly embosses the text, flattening out the first printing and/or creating a slight halo effect around the letters (see "Inquiry" illus. 10a in the print version; 26 in the online version).



Phillips—carefully. We are merely agreeing with Phillips (95, 101) about what would be the necessary stages of production had Blake printed plates twice, and we are explicit about why “Phillips is correct to assume” these labor-intensive stages (82). In his “Correction,” Phillips continues to say that the plate is cleaned of ink and colors per pull. It is the advocates of the two-pull theory who make Blake’s processes unnecessarily complex. They fail to perceive that complexity by considering the two-pull process only as a one-off activity that produces a single impression. It is by remembering “one of Viscomi’s most important discoveries” that we were led to follow out the consequences of the two-pull process as part of edition printing—that is, a procedure in which multiple impressions were printed from each plate before moving on to the next. When we contextualized the two-pull process proposed by Phillips within edition printing, we were ensnared within a labor-intensive, time-consuming, and materials-wasting series of inking, printing, wiping off the ink, coloring, registering, printing, wiping off the colors to ink the plate again, printing . . . and on and on.<sup>5</sup>

To avoid the complexity of Phillips’ two-pull method, Butlin advances a new procedure. Instead of coloring the plate immediately after the first pull and printing a second time, Butlin suggests printing all the plates in a series in ink, and later printing “the same series of sheets with his [Blake’s] thick color medium.” This would indeed be a simpler process, but it actually makes registration more difficult. Indeed, it would make impossible anything even approaching acceptable registration. Unfortunately, to back up this observation will require us to descend, once again, into a few technical details.

Neither of the registration methods Phillips continues to advance, in his “Correction,” would allow for the production process Butlin proposes. If the printed sheet were held under the roller of the press after the first pull in ink, then it could not be removed to allow for another sheet to be printed in ink. Removing the sheet would quite obviously destroy the possibility of keeping it firmly in place. If bottom-sheet registration were used, then the registration for any one plate would be ruined when a second plate was placed on the bed of the press for printing in ink. This is because Blake’s plates

5. This was no mere thought experiment on our part. For “Inquiry,” we actually used the two-pull process in the studio, using Phillips as a guide, for about 45 minutes. At that point we got very tired of its complexity. For the present essay, Viscomi spent 22 hours in the print studio at the University of North Carolina (16, 24, and 26 July 2002) and as many hours in his home studio printing and coloring plates he made based on Blake’s designs and conducting tests; at least ten hours were spent printing the plates in the two-pull method. This experience (and previous experience at multiple plate printing in the 1970s and 1980s) reconfirms his opinion that for a work like *Songs of Innocence and of Experience* or *The Book of Urizen*, the technique is tedious and slow, wastes materials, has a high error rate, and, most importantly, provides no aesthetic gain.

differ in size and configuration, even within a single illuminated book, and thus each plate would require a new bottom sheet.

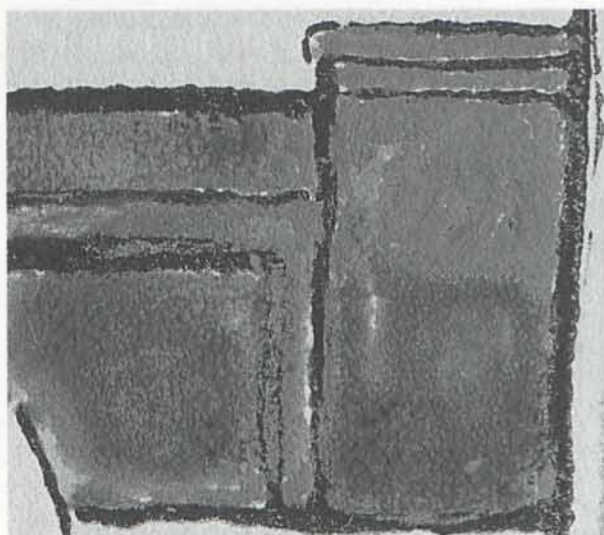
We would like to see Butlin test his hypothesis in practice, for we cannot imagine any method of registration that would be compatible with it, but let us suppose there is one. Printing a series of ink impressions first, and then returning to them to print in colors, implies a substantial amount of time between these two activities, particularly if (as Butlin seems to suggest) the ink is allowed to dry. During that interval, the dampened paper would dry. It was standard practice for all professional plate printers in Blake’s time to dampen the paper. We can be confident that Blake continued this procedure in his printing from relief-etched plates because of the consistent differences in the size of the plate impressions between examples pulled by Blake himself and the posthumous prints pulled by Frederick Tatham.<sup>6</sup> Lifetime pulls shrunk as they dried. Tatham apparently did not dampen his paper and thus there was no shrinkage. If Blake had allowed his inked impressions to dry before a second pull, the image in those impressions would have been smaller than the image on the copperplate. Registration would have been impossible. Wetting the paper again would have been no help, since one cannot control the extent to which a sheet of paper will shrink or stretch under varying degrees of dampness and printing pressure except under scientifically controlled conditions.

We regret that Butlin was confused by our overly abbreviated caption to illus. 16 in the print version of our essay (illus. 36 in the online version). By “printed colors painted over inked relief lines” we were referring to the way in which the printed colors in the impression of plate 1 from *The First Book of Urizen* copy D were painted on to the copperplate (not on to the impression) in such a way as to spill over both sides of the relief lines on the copperplate. The point here is that Blake approached the coloring of the plate in a painterly and imprecise way rather than in the exacting manner required of precise registration. We hope that we did not mislead too many readers on this point.

Butlin does not believe that we can determine, in the case of the title plate to *Experience in Songs of Innocence and of Experience* copy T<sup>1</sup>, that the colors over the date were painted on the impression rather than printed from the copperplate. We think we can, based in part on careful comparison between the reticulated surfaces created by color printing and the much smoother surfaces when the same medium is painted on the impressions (see illus. 19 and 20 in the print

6. These measurable differences were first pointed out in Bentley 67. We are confident that Bentley is right about the origin of these differences: “The reason for this variation may be that Blake and his wife dampened the paper when printing to get the best possible impressions, and it subsequently shrank, while Tatham did not dampen his posthumous pulls.”





2. *Songs of Experience*, title plate. Handmade relief etching based on Blake's design, 12.8 x 7.5 cm., color printed in oil-based ink and undiluted burnt sienna watercolor. Detail: the color lower right, below the area where the date appears in Blake's original (only a faint trace of it is present here), was printed from the plate and reticulated as it transferred from the plate to the paper; the color covering the date (upper right) was brushed on the impression after the ink was dry and has a flat texture and stronger covering power because it did not mix with the wet ink. Printed 26 July and painted 27 July 2002.

version of our essay; 42 and 46a in the online version).<sup>7</sup> Faint traces of the date can be seen through the gray color, the texture and covering power of which are not difficult to duplicate. The recreation of the *Experience* title plate in illus. 2 was printed in a Van Dyke brown intaglio ink with burnt sienna opaque watercolor and was hand colored in a gray made of Chinese white (zinc white) and Payne's gray. The printed color (lower right, below the date), though painted on the plate smoothly with a brush, has the reticulated texture characteristic of colors pulling away from one support to another; the color upper right, covering the date, was applied directly to the impression with a similar brush and mixes flat with the texture of the paper.

But our argument concerning the *Experience* title page in copy T<sup>1</sup> also rests on the patterns of color printing observable in Blake's other impressions (in *Songs* copies F and G) of the plate pulled in the same printing session. Patterns are repeated in sequentially pulled color prints because the col-

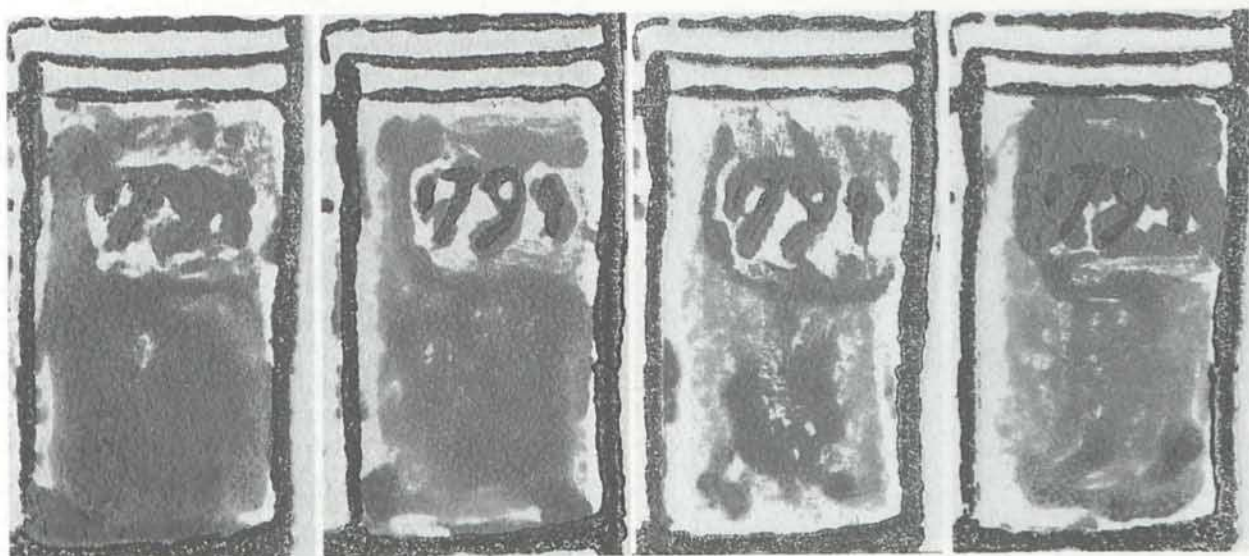
7. In his note 4, Butlin says that the three-dimensional qualities of the paint over the date of the *Experience* title page cannot be ascertained in a digital reproduction and that it needs to be examined by the eye. One can, however, see in the enlarged digital reproduction (46a bottom of the online version of "Inquiry") and in the enlarged print reproduction in the Tate exhibition catalogue (Hamlyn 119) that the texture of the gray pigment is smoother than the colors around it.



3. *Songs of Experience*, title plate. Handmade relief etching based on Blake's design, 12.8 x 7.5 cm., printed in a Van Dyke brown intaglio ink from the surface and shallows simultaneously to show the two levels of the plate and where ink is and is not picked up by the paper. Printed 29 July 2002.

ors, after that first impression, remain on the plate; these colors in turn guide the hand coloring of the plate. If they were wiped off between pulls, as Phillips claims, then Blake was not only wasting colors and preventing color build up—which allowed him to add less color in subsequent printings—but was also repainting his plate in imitation of his previously pulled impression. In the *Experience* title plate impressions, these patterns are all the same in the areas that were color printed, except that none of the other impressions has the date covered. In all these sequential impressions, Blake has avoided printing colors over the date, hooking them around the beginning of the date instead. It is far more likely that Blake painted out the date directly on the copy T<sup>1</sup> impression than that he interrupted his printing process to color the area of the date on the copperplate in a new color for a single impression. It is also unlikely that he could print a pigment that ignored the physical laws of sur-





4a-d. *Songs of Experience*, title plate. Hand made relief etching based on Blake's design, 12.8 x 7.5 cm., printed in a Van Dyke brown intaglio ink and gray and burnt sienna watercolors. Detail of pillar and date from four impressions all showing white lines around the numbers: a. (far left) date printed over in gray pigment in one pull; b. (second from left) date printed over in gray pigment in a separate, second pull; c. (third from left) date printed over in gray pigment in a separate, second pull using less pressure than used to print the ink; d. (far right) date printed over in gray pigment in a separate, second pull using more pressure than used to print the ink. All four methods of applying colors over the date fail to cover the date the way it is covered in the *Songs* copy T<sup>1</sup> impression. The same color applied directly to the impression once it is dry, however, can cover the date (see illus. 2). Printed 29 July 2002.

face tension to reticulate less than all the others in the same impression. Further, the gray pigment covering the date in the T<sup>1</sup> impression is the same as that used to paint over the white-line escarpments that remain uncovered in the other impressions produced in the same session.

And finally, and most convincingly, there is the physical character of the plate itself that would make covering the date by printing colors over it—in one or two pulls—extremely difficult and extremely obvious had it been done. Illus. 3 shows the structure of the plate, its surface areas and shallows. Note that ink does not print at the base of the relief lines or spaces between letters and lines, and this includes the lines forming the numbers of the date. The pattern around the date resembles that in the impressions of the *Experience* title plate in *Songs of Innocence and of Experience* copies T<sup>1</sup>, F, and G ("Inquiry" illus. 20 and 21 in the print version; 46a and 46b in the online version). Had the color hiding the date actually been printed, there would be fine white lines around and between the numbers. Unless Blake had previously built up colors in that area and/or printed with undue pressure or with very thick colors (both of which would cause splotching and filling up of lines), the escarpments around these relief lines would be present whether the plate was color printed in one pull (illus. 4a) or two pulls (illus. 4b), or if the second pull had "been printed with less pressure" (illus. 4c), as Phillips claims ("Correction"), or with more pressure (illus. 4d).<sup>8</sup> Knowing the struc-

ture of his plate and the character of his printing technique, Blake also knew there was no point in blotting out the date as part of his printing procedure when it could be covered up more effectively during hand finishing—as were the escarpments around the lines forming the pillars.

Phillips implies that the inked date hidden under opaque color is evidence that the colors were applied separately. Otherwise, he concludes, the ink would lie on top of colors as it presses into the paper. Butlin is explicit about this supposed "sandwich" effect. He states that he is convinced by our argument (his footnote 4) that a denser medium or a darker color will always appear to be lying on top of a thinner medium or a lighter color, as we demonstrated in our discussion of "Nurses Song," but he continues to believe that "ink lines" would appear to be "lying on top of the denser colored areas" in a one-pull process. Because we do not see this visual effect in Blake's color prints, he reasons that Blake printed the colors in a second, separate pull through the press. But this is faulty reasoning. We do not see it in one-pull printing because the colors are applied over the ink and are thus mixed wet on wet with it. The result is that the colors often dominate the ink. Intermixing of colors and

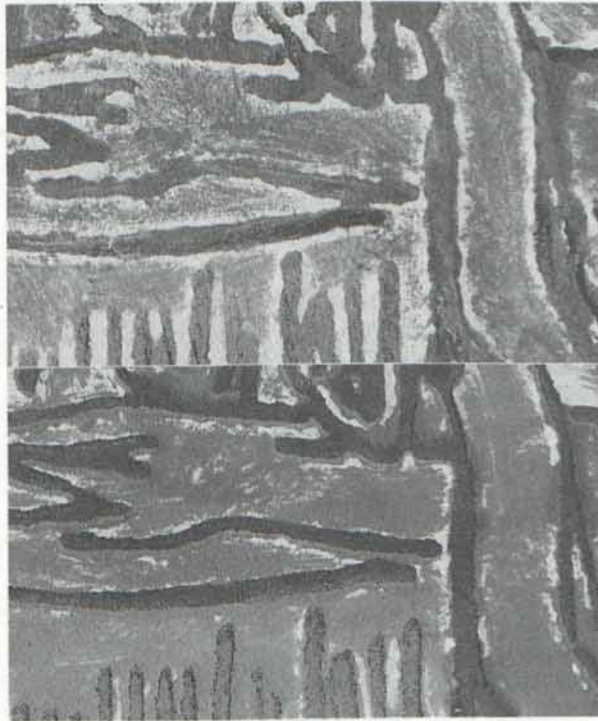
been printed separately with *less* pressure to create a top layer above the ink since the colors were printed from the plate's shallows and not just its surface areas. Less pressure would not have picked up all the colors from the shallows. Depending on the depth of the plate, colors printed with less pressure would appear thinner, not thicker, and have less rather than more covering power.

8. Logic alone indicates that the colors over the date could not have





5a-b. *The Marriage of Heaven and Hell*, plate 10. Handmade relief etching based on Blake's design, 15.3 x 10.1 cm., printed in oil-based ink and water-based colors. a. (left) Detail of devil's wing and shoulder, table, and right figure printed in one pull showing printed color intermixing with ink. b. (right) Detail of devil's wing and shoulder, table, and right figure printed in two pulls showing the black printed ink dominating the color. Printed on 26 July 2002.



6a-b. *Songs of Experience*, title plate. Handmade relief etching based on Blake's design, 12.8 x 7.5 cm., printed in oil-based ink and water-based colors. a. (top) Detail of figures printed in one pull showing printed color intermixing with ink. b. (bottom) Detail of figures printed in two pulls showing the black printed ink dominating the color. Printed on 26 July 2002.

ink increases for the subsequent impressions, because the dabber reinks over the colors and the colors are then reapplied over that ink. The color-printed relief etching based on *The Marriage of Heaven and Hell* plate 10 (illus. 5) demonstrates this intermixing. The plate was printed in black ink and various water-based colors simultaneously; the colors painted over the ink on the wings and body of the devil intermix with the ink and remain clearly on top (illus. 5a). Printing this plate in two pulls, however, first in ink and then in colors, minimizes intermixing, the result of which is a cleaner looking ink or outline (illus. 5b). This is true whether the ink is intaglio or relief, whether printed on a press or by hand. We see the same contrast between relief etchings based on the *Experience* title plate color printed in one and two pulls (illus. 6a and 6b). This intermixing effect is seen throughout Blake's color prints (illus. 7; see also in the print version of "Inquiry" illus. 9, 12, 16, 36, and in the online version, illus. 25, 29, 36, 74, 75). By painting over some inked lines and leaving others uncolored (painting within the lines, as it were), Blake could continue to vary the tonality and textures of his color prints.

At issue is the covering power of the colors. They have the most when applied thickly as an opaque film on the impression, as illus. 2 demonstrates. They cover less completely when intermixed with ink, as in one-pull printing (illus. 5a



7. William Blake, *The Marriage of Heaven and Hell*, copy F, plate 10. Relief etching, 15.0 x 10.2 cm., 1790, color printed and finished in watercolors and pen and ink, c. 1794. The Pierpont Morgan Library, New York, PML 63935. Detail of devil's wings, table, figure on left, and plant showing printed yellow ochre and burnt sienna color intermixing with and covering the black ink. The ground below the figures shows layers of colors printed from the plate.



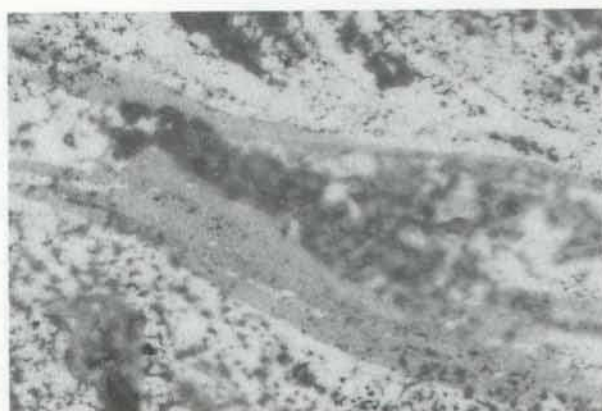


8. Printed colors and pen and ink washes, detail. The blotchy colors were printed from an unetched plate onto damp wove paper; the horizontal gray wash lines were applied with a brush directly on top of the printed colors once they were dry. Printed and colored on 26 July 2002.

and 6a). And they cover least when printed separately in a second pull (illus. 5b and 6b). A cleaner or sharper outline is comparable to Butlin's "ink lines lying on top of the denser colored areas." In other words, what Butlin says should happen with one-pull printing actually happens with two pulls. The facts that the intermixing of colors and ink is present throughout Blake's color prints—and that sharper ink lines showing through colors is not—are further evidence for one-pull and against two-pull printing.

Butlin is also misled by the illusion created by thin washes applied on top of printed colors. Thin, water-based colors are absorbed by unprinted areas of the paper. At the same time, because of their different viscosities, water-based colors tend to run off of oil-based ink or thick color-printing medium. Thus, washes will appear to be *under* a dense medium printed prior to the application of the washes. This is, pace Butlin, a "provable fact," and can be demonstrated without resorting to "the miracles of modern technology." Illus. 8 shows three horizontal gray wash lines of various thickness that appear to lie under thick, reticulated colors (burnt sienna and raw umber) printed from a plate onto damp paper, but all three horizontal lines were applied with a brush *over* the colors once they were dry. This illusion is probably the reason why Richard Lloyd, "head of the print department at Christie's London," observed that "in one place a layer of watercolor has been added over the printing ink but under the color-printed pigments" (Butlin) on an impression of *The Book of Urizen* plate 3 sold by Christie's London on 18 December 2001. Note the lack of specifics. Which "place" on the print? What color is the wash? Is it thinner than the printed colors? We have carefully inspected the *Urizen* print in question (see cover illus.). The thin grayish washes that outline the arms and legs do indeed appear under the printed colors, but all were applied on top of them.<sup>9</sup>

9. The illusion, claimed by Phillips in his "Correction" (see also his book, 103), of multiple layers on the title plate of *Songs of Innocence and of Experience* copy T<sup>1</sup>, and which he read as evidence of two pulls, appears to be another instance in which the various viscosities and

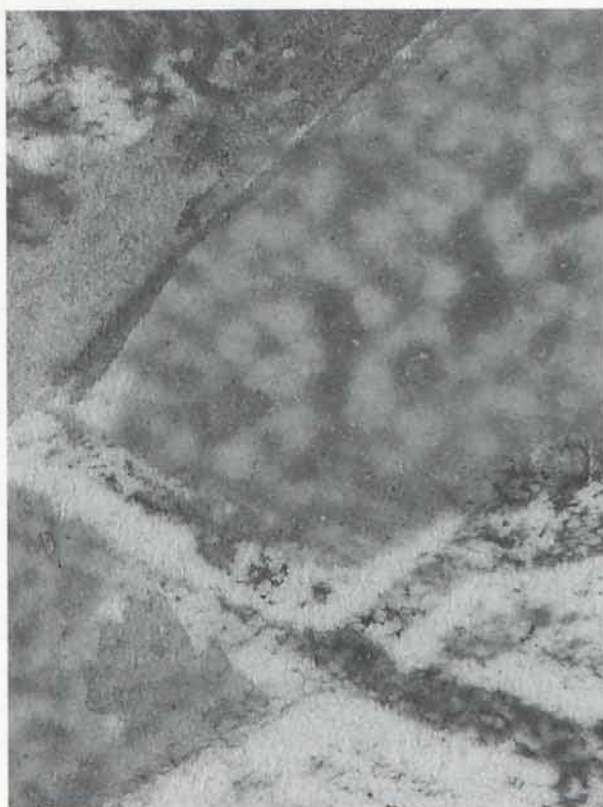


9. William Blake, *The First Book of Urizen*, plate 3. Relief etching, 15.0 x 10.2 cm., 1794, color printed with touches of hand tinting with brush and pen and ink c. 1794. Robert N. Essick collection. Detail of left forearm, with gray wash filling in areas of the arm where the color printing is weak or did not print.

One need not know how washes and colors interact or resort to facsimile reproduction to realize how absurd the idea is that the watercolor washes on the *Urizen* print were applied *before* the colors were printed. One need only think through the production process to see how unworkable it is to apply colors by hand prior to finishing all stages of the printing procedure. The text is lightly printed in a light orange-yellow ochre ink. We have searched diligently, but we can find at most only a few very small spots of this ink in the design area. The figure and flames, the relief lines of which guided the coloring on the copperplate, are defined primarily by the colors in which they were printed (burnt sienna, raw umber, red, beige, and yellow-ochre pigments) rather than the ink. Thus, if Blake had added washes to the design area before he color printed it, he would be painting on what was virtually a blank piece of paper. How did he determine where to place the finishing washes before there was any image on the paper to finish? The purple-gray wash surrounding the figure's left forearm is clearly an attempt to fill in areas of the arm where the color printing is weak or did not print at all (illus. 9). How would Blake know that he needed to improve this area before the color printing had been executed and its incompleteness on the arm made evident? The black ink line, almost certainly added with a pen, that outlines the upper edge of the figure's right leg carefully follows the edge of the color printing (illus. 10). There is no underlying orange-yellow ochre ink printed in this area. How would Blake know where this fine pen and ink line should be drawn prior to color printing? Adding handwork to a print is always the last step, after all printing has been

surface tensions of ink and colors trick the eye. An illusion of various layers can be experienced by viewing a reproduction of the *Experience* title plate (or of any color or colored print) in the Tate exhibition catalogue (Hamlyn 119) with a magnifying glass.

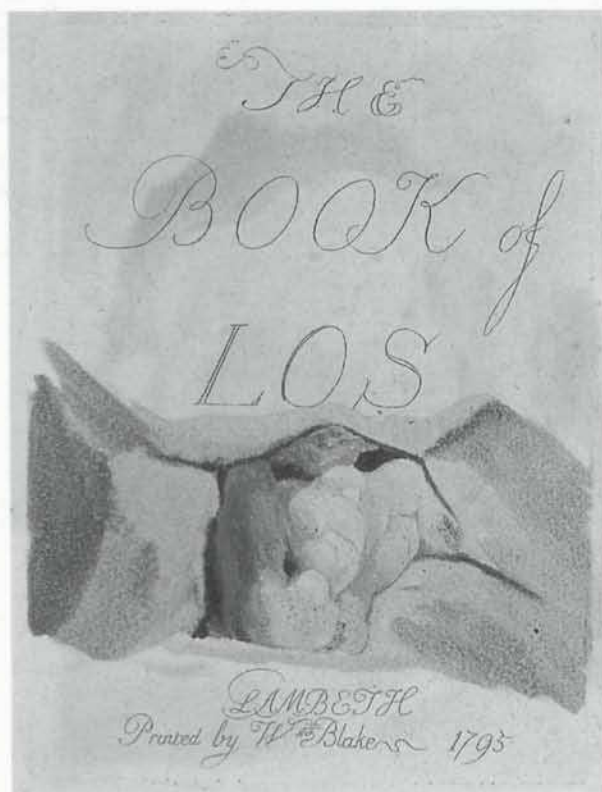




10. William Blake, *The First Book of Urizen*, plate 3. Relief etching, 15.0 x 10.2 cm., 1794, color printed with touches of hand tinting with brush and pen and ink c. 1794. Robert N. Essick collection. Detail of top edge of right leg below the knee, with a black ink line, added to the impression with a pen, outlining the leg where the ink did not print.

finished. To reverse this procedure and add an intervening layer of handwork between printing operations creates unnecessary problems, particularly when there is little if any image printed on the paper. All such difficulties and complexities are avoided if, as we are convinced, Blake printed the inked text and the color-printed image in one pull through the press and later added the washes and pen and ink outlining. The fact that this was the conventional sequence in Blake's time does not persuade us that Blake did not follow it.<sup>10</sup>

10. Butlin states that "creating precise registration . . . was indeed anything but a mechanical process"—which is to misunderstand the material exigencies of printmaking and printing because he equates "registration" with pen and ink "outline" that is done on the impression after printing. He argues that Blake was "forced to fill in the outlines in ink or with the point of a brush" on many of his color-printed impressions because the outline as printed was imprecise. He is right about the printed line being less sharp and wiry, hence "precise," than hand-drawn pen and ink lines, which would be true of impressions printed in one pull or two pulls. But he is wrong to imply that we think that one-pull printing was "precise" in this sense of the word and hence not in need of hand finishing. We are very clear in "Inquiry" and in its captions for illustrations that Blake finished his color



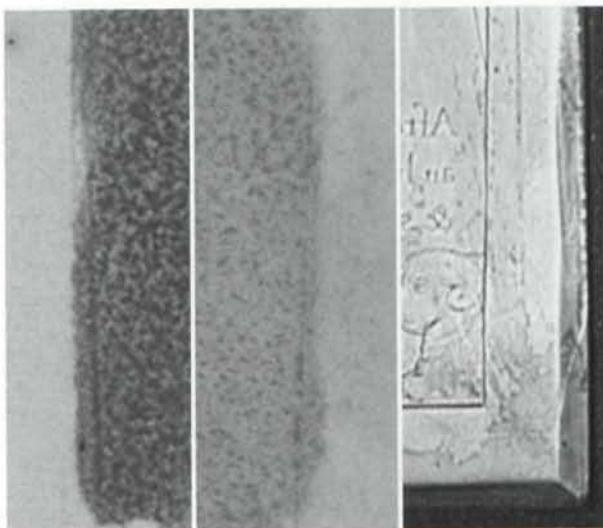
11. William Blake, *The Book of Los*, copy A, title plate. Etching, 13.5 x 9.8 cm., 1795, color printed and finished in watercolors and pen and ink, 1795. British Museum.

Butlin faults us for not discussing the intaglio illuminated books, the "independent color-prints" (i.e., the intaglio and relief etchings color printed as part of the *Large Book of Designs*), and the large color prints. He suggests that all these provide strong evidence for two-pull printing of all of Blake's color prints. We disagree and take the opportunity to examine them now.

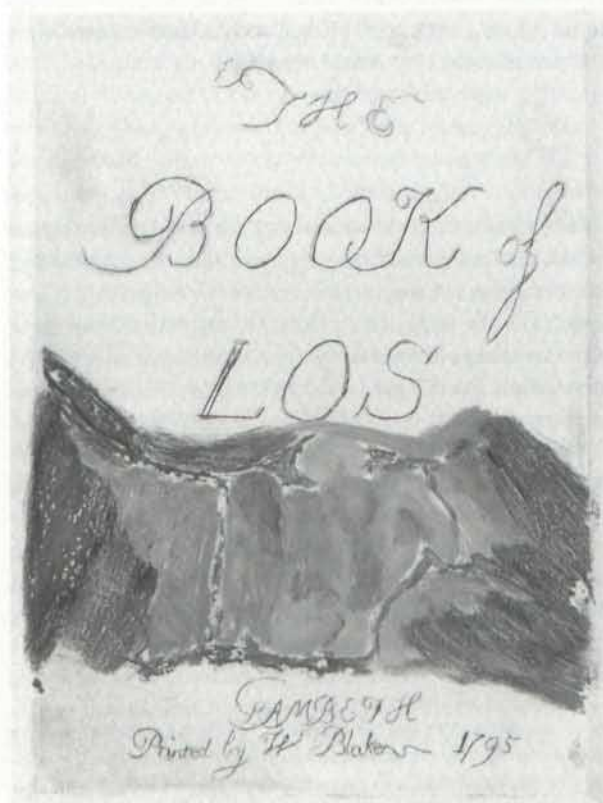
Why Blake switched in 1795 to intaglio printing for the last two illuminated books of the 1790s is a good question, but the idea that "the switch was intended to make it easier to print by the two-pull process" (Butlin) is not the answer. If that was Blake's intention, why do *The Book of Los* and *The Book of Ahania* exist in one copy each? Why only eight color prints—counting proofs—among the 17 extant im-

prints in watercolors and pen and ink. In short, registering a plate precisely to an earlier impression from it is not the same thing as adding fine lines and details in pen and ink on impressions. Butlin also equates a two-part or "double process" of printing impressions and then coloring them in watercolors with a two-pull printing process. This analogy obscures the issue at hand. Most image-making processes can be divided into multiple activities; the question is where those divisions occur.

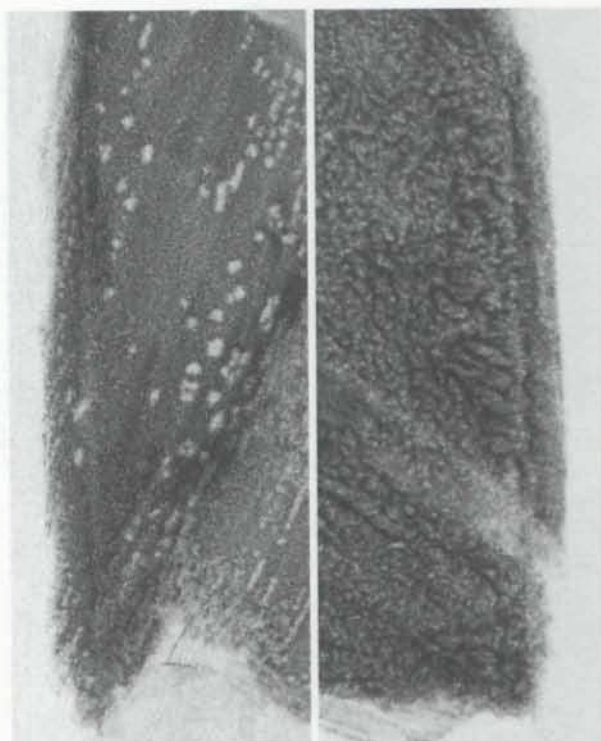




12a-b. (left and center) William Blake, *The Book of Los*, copy A, title plate. Etching, 13.5 x 9.8 cm., 1795, color printed and finished in watercolors and pen and ink, 1795. British Museum. Details of the right and left sides of the image showing colors spreading beyond the platemark and over the beveled edges. 12c. (right) William Blake, *The Book of Job*, copperplate for plate 2. Engraving, 21.3 x 16.5 cm., 1826. British Museum. Detail showing bevel at lower right corner.



13. *The Book of Los*, copy A, title plate. Handmade intaglio plate based on Blake's design, 13.8 x 10.0 cm., printed simultaneously in ink from the intaglio lines and in colors from the surface of the plate. Impression before finishing. Printed 16 July 2002.

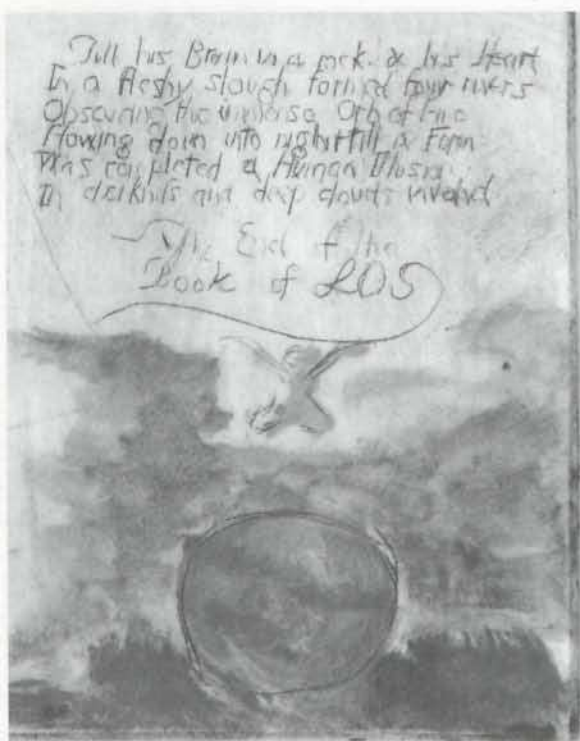


14a (left)-b (right). *The Book of Los*, copy A, title plate. Hand-made intaglio plate based on Blake's design, 13.8 x 10.0 cm., printed simultaneously in ink from the intaglio lines and in colors from the surface of the plate. Impressions before finishing. Detail of colors extending past the left and right platemarks and over the bevels in two different impressions. Printed 16 July 2002.

pressions of the two works? How does this compare to over 600 color-printed relief etchings? From this minority report, Butlin reasons that, if two pulls here, then two pulls in everything leading up to it. Such logic should give one pause, given how experimental Blake was as a painter and printmaker, often engaging in methods that are unique to a single work (as Butlin notes in his comments about *America a Prophecy* of 1793). In this matter, however, Blake was as consistent as Butlin supposes. But this consistency resides in his continued use of one-pull printing.

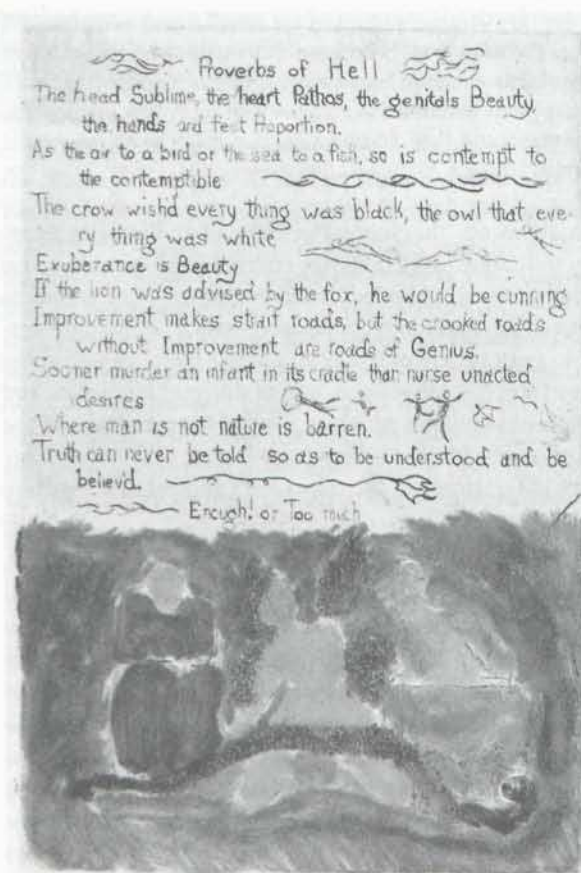
We have argued that Blake color printed his relief-etched plates by inking the raised surfaces with a dabber and applying colors locally with brushes and small dabbers to the inked surfaces and uninked shallows in the standard *à la poupée* manner and then printing raised surfaces and shallows simultaneously. Printing the two levels of an intaglio plate simultaneously is a variation on this technique. Essick once suspected otherwise, because he interpreted the colors extending beyond the platemark in *The Book of Los* title plate (illus. 11) as signs of a second printing (*Printmaker* 130). What he now realizes is that these colors were printed from the beveled edges of the copperplate (illus. 12a, b). Because an intaglio plate requires more pressure than surface print-





15. *The Book of Los*, copy A, plate 5. Handmade intaglio plate based on Blake's design, 9.0 x 9.0 cm., printed simultaneously in ink from the intaglio lines and in colors from the surface of the plate. Detail of bottom right corner showing intaglio text, surface colors, and slight intaglio lines in the illustration. Impression before finishing. Printed 26 July 2002.

ing, it was (and still is) common practice to bevel the plate to remove sharp edges and thereby prevent them from possibly tearing the paper. Illus. 12c shows the bevel that Blake gave to his *Book of Job* plate 2. It is very easy to replicate the visual effect of colors spreading past the platemark in *The Book of Los*—in fact, if the colors are applied near the edge of the plate, it is very difficult to prevent such spreading. Viscomi printed his replica of *The Book of Los* title plate simultaneously in intaglio with an oil-based black ink and in relief with water-based colors (illus. 13). It is one of 21 impressions he printed on 16 July 2002 in the University of North Carolina print studio in a two-hour period. A detail of the left margin of the impression in illus. 13 and one of the right margin of another impression show the colors extending past the platemark and even past the bevel (illus. 14a-b). Viscomi also color printed etched replicas of the bottom corner of *The Book of Los* plate 5 (illus. 15) and of *The Marriage of Heaven and Hell* plate 10 (illus. 16) simultaneously in intaglio and relief. The latter impression, with intaglio text and color-printed vignette, is analogous to *The Book of Los* plate 5 and *The Book of Ahania* plate 6. Blake's illustrations in *The Book of Los* plates 2 and 5 appear to have been rudimentarily etched and lightly printed with the col-



16. *The Marriage of Heaven and Hell*, plate 10. Handmade intaglio plate based on Blake's design, 15.3 x 10.1 cm., printed simultaneously in oil-based ink from the intaglio lines and in water-based colors from the surface of the plate. Impression before finishing. Printed 16 July 2002.

ors; the illustration in the *Marriage* replica plate was inked but the ink did not print through the colors. With intaglio plates, printing the inked lines of the illustration is actually unnecessary since the etched lines themselves direct where one applies the colors to the copperplate. Blake appears to have used the etched lines of *Albion rose*, *The Accusers of Theft Adultery Murder*, and *Lucifer and the Pope in Hell* only as guidelines for coloring, since they appear to have no printed outlines in color-printed impressions. Their outlines were added to the impressions with pen and ink.

We do not expect our images to substitute for a thousand words. Thus, it is worth reviewing the contributions to what we know about color printing made by the twentieth-century printmaker Stanley Hayter and others at Atelier 17 in Paris and New York:

Experiments combining surface and intaglio methods of printing were made at Atelier 17 as early as 1930. The earliest color prints at Atelier 17 were made by applying color with a roller to the surface of an uninked intaglio plate, from which an impression was made on paper. The plate



was then cleaned and inked for intaglio, and overprinted on the same paper. Because this method presented the problem of registering the two impressions exactly, the two steps were combined in a single printing by first inking for intaglio and then adding a surface color by means of a roller. (Moser 35)

Variations on "this simultaneous relief and intaglio printing technique," which Hayter referred to as "simultaneous color printing," included "the direct wiping of certain areas with an ink soaked rag, or poupee," which "allowed the artist to use a variety of colors on a single plate," as well as the use of stencils, silk screens, inks of different viscosities, and rollers of varying hardness to control the placement of the relief colors (Moser 35-36; see also Hayter, *New Ways of Gravure* 158).<sup>11</sup> However the colors were applied to the surface of the plate,

the application of colours . . . was less important than the big idea of combining all colours on one plate and printing it in one passage through the press. Efficiency was not the only reason for adopting this process; it gave imaginative artists an entirely different notion of working in colour intaglio. New textural possibilities, new aesthetic means of expression lay open. In the past, traditional colour aquatint had appeared sporadically; after Hayter's breakthrough, . . . intaglio printing in colour began to burgeon and is now common practice. (Black and Moorhead 16)

Simultaneous color printing was born out of the attempt to avoid "all the difficulties of register," which Hayter knew all too well (*New Ways* 159). In *About Prints*, he describes various methods for registering plates, including pinholes, bottom sheets, and pinching the paper with the press's roller, and concludes that "it is worthy to note that none of these methods is absolutely precise" (58). Phillips continues to

11. A thicker, more viscous ink rolled over a thinner ink is rejected and adheres only to the surface surrounding the first ink. This technique is usually referred to as "color viscosity printing," but Hayter considered that a misnomer and preferred to call it "simultaneous color printing, making no distinction between this technique and that used for other prints made with stencil, silk screen, or offset colors" (Moser 38). Plates etched to create relief areas and open shallows (called "open etched," "relief etched," and "deep etched" plates) could be inked with hard rollers for the surface in an ink of one viscosity and softer rollers for the shallows in inks of different viscosities. For more on Hayter's experiments in color printing and its origins, see Black and Moorhead's catalogue raisonné, *The Prints of Stanley William Hayter* (15-16, and 23ff). The reproduction in this catalogue of the print *Jeux D'Eau* (#208) from 1953 is of particular interest to the present discussion because it was one of the color prints produced from the same plate registered and printed twice. Along the edges and corners ink slightly overlaps from the two printings to reveal the registration. In other words, even a great printer like Hayter in a first class workshop like Atelier 17 could not completely hide the signs of registration. By the mid 1950s, Hayter "stressed so strongly the advantages of printing color from a single plate that an artist interested in printing from several plates rarely did it at the workshop" (Moser 46).

suggest that Blake might have used the roller to hold his paper in place, despite our pointing out that the sheets used in *Songs of Innocence and of Experience* are too short for this method, given the circumference of the roller of his press ("Inquiry" 95), and he suggests a variation on the method in which the paper is held in place by a weight. Of the pinched sheet method (and this would be true of its variant), Hayter states: "If done carefully it is accurate to within 1/32 inch even on large plates, but it is only applicable when printing wet on wet" (*New Ways* 136). This means that the paper must be printed damp and sequentially, and thus cannot be set aside as Butlin has suggested, and that the best alignment one can hope for might fall below the threshold of vision but will be detected by close scrutiny and magnification.<sup>12</sup> Our facsimile in "Inquiry" is this good, but when examined under a magnifying glass it reveals the characteristic ghosting of a second pull (see illus. 6 and 7a in the print version; 20 and 21 online). Moreover, plates that pass through the press twice look the part: "... it must be obvious that the full, sharp relief can only be seen from the last plate printed, that of all other plates having been flattened by subsequent passes through the press." And, as we noted in "Inquiry," registering one plate on top of another is "typical of the practice of a skilled artisan rather than a process by which the original thought of the artist becomes visible directly in a print" (Hayter, *About Prints* 58-59).

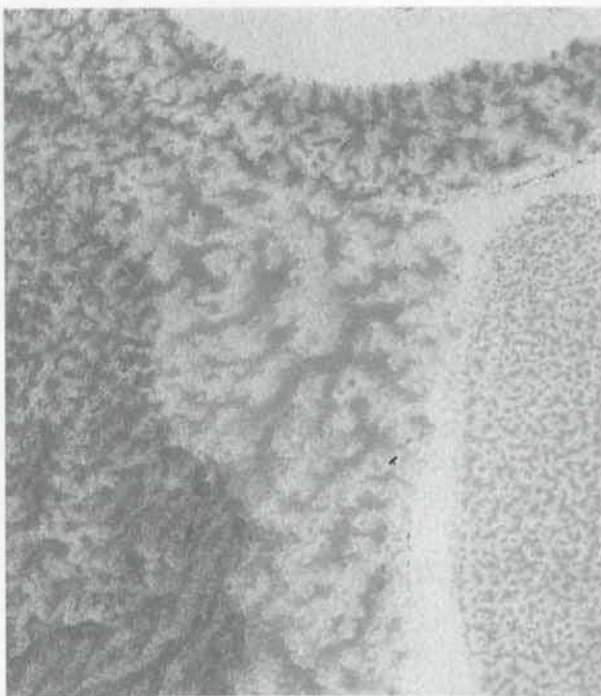
It may come as a surprise to Butlin, as it did to Essick, that Hayter believed that simultaneous printing in intaglio and surface colors

to the layman . . . will seem so obvious that he will be surprised to hear that it was not carried out successfully long before, as the advantages of producing a full colour proof in a single operation, rather than having to recommence the whole operation three or four times, are obvious enough. Of course it had been tried before, and what happened to the printer attempting it was probably what happened to us many times during the fourteen years we spent developing this method. (*About Prints* 59-60)

His method as finally or fully developed could be very complicated, involving multiple intaglio techniques on a large plate (e.g., engraving, soft-ground, aquatint) and multiple roll ups in relief inks of different viscosities (see note 11). But Hayter, who was "among the first to admit that the fewest and simplest operations should be used to achieve the

12. Phillips was, he realizes now, too quick to accept the notion that Blake produced four perfectly registered color prints without signs of registration using just one pinhole, a technique never before used for good reason. Common sense tells one that it cannot work; at least two pinholes are required (see Hayter, *About Prints* 57). Yet, not only was he willing to believe in Blake's use of this technique, but he claims the technique does "work," because he has tried it ("Correction"). We are curious to know what he means by "work" and to see the results. Are his registrations acceptable or perfect and without any traces of the second pull?





17. Colors test, demonstrating different textures created by different recipes for colors used in printing. Printed 16 July 2002.

desired effect" (Moser 40), identified the fundamental technical problem as "surface colour shifting under the rolling pressure of the press, [which] once clearly understood, was solved by controlling the surface tension of the [relief] ink" (*About Prints* 61). For Blake, who used water-based colors instead of relief inks, this meant making colors that could be applied thickly or thinly to shallows or surfaces and which transferred to damp paper without prominent splotching or smearing. As *illus. 17* demonstrates, modifying the composition of the colors can affect their surface tension and viscosity. Too much or too little pigment, glue, ox gall, honey, whiting, or water in the color makes for different visual qualities in the print, as do the type and texture of the paper, the amount of size in it, and the amount of pressure used in printing.<sup>13</sup> Painting quickly and keeping the colors moist works well, but so does painting the plates and letting them dry (which is inevitable for larger works), because when

13. We do not know the exact recipe for Blake's colors, but we know that the vehicle was glue and/or gum and not oil (pace Frederick Tatham; see Gilchrist 1:376 and Tatham's letter in Rossetti 16). At least one large color-print drawing has gum as the medium in which its colors were suspended (see Essick, *Printmaker* 131, 259-60). Additives like honey and ox gall (replaced today by glycerin and wetting agents) impart moistness, prevent extreme caking and drying, and improve the uniform flow of paints on surfaces, while whiting adds body to the color (Mayer 300). The quality of the pigments and the size of the particles to which they are ground also affect the behavior of the colors. Blake's pigments in color printing appear not to have been ground very finely.

printed onto damp paper under pressure the dried water-based colors are reconstituted and will transfer to the paper. The color-printed replicas reproduced here are of this second kind.

We agree that the large color-print drawings (1795) and the Books of Designs (1796) "represent a culmination of Blake's color-printing experiments." But it is not as Butlin imagines. He sees Blake's development as moving from simple to complex, from small relief etchings printed in one pull, to etchings and relief etchings printed in two pulls, to large color prints produced in two pulls and elaborately finished in watercolors and pen and ink.<sup>14</sup> The development, however, was towards greater simplicity, from printing a combination of oil-based ink and water-based colors from two levels of one plate to the planographic printing of just water-based colors from the surface of a support. Technically, the color-printed *Albion rose* is the vignette from *The Book of Los* title plate writ large: the unprinted intaglio line was used as a guide for painting the surface of the plate in colors that were printed onto damp paper and finished in watercolors and pen and ink. The large color-print drawings are, technically, *Albion rose* writ large, in that the colors were painted on a flat support. The outline of the design was probably drawn on a gessoed millboard (though copper was used for at least one design) in India ink, which would adhere permanently to the support and not transfer to the paper.<sup>15</sup> The composition was painted in colors using brushes and dabbers and printed onto damp paper and finished in watercolors and pen and ink. The outline and composition, the latter in thin layers of dried colors on the support after printing, could be returned to years later and the process repeated.<sup>16</sup>

14. Butlin does not explicitly say so, but he implies that the large color prints were printed in two pulls, first in outline and then in colors. In earlier statements, he implies that Blake used both a two-pull and a one-pull procedure: "In some cases, such as *God Judging Adam*, Blake seems to have printed a monochrome outline of his design before over-printing it in his tacky, tempera-like medium, a process akin to that used in the colour-printed examples of his books. . . . In others only colour-printing can be detected" (*Paintings and Drawings* 1:156). He makes the same point in his "Physicality" essay (4-5).

15. The outline may also have been drawn in watercolor and covered over in a thin film of transparent varnish or gum Arabic, which would prevent it from printing and assist in transferring colors from the support. Gum Arabic is used in this manner today in printing monotypes in watercolors. Millboard, the thick kind used in binding books, would have to be sealed with a glue or gesso to prevent the watercolors from being absorbed into the board. The idea that the patterns in the gesso may have contributed to the spongy appearance of the color print or parts of it was suggested to Viscomi by Beth Grabowski, Professor of Art at the University of North Carolina, who teaches printmaking. To test this hypothesis, impressions from the same board color printed in 1795 and c. 1804-1805 would need to be examined minutely. Identical patterns of reticulation in two such examples would suggest that they were produced by the surface structure of the gesso on the board.

16. It is interesting to note that Blake provided his chief patron, Thomas Butts, with a set of the large color-print drawings in 1805,

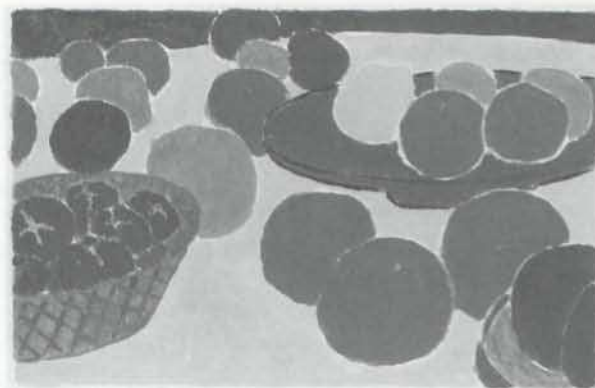




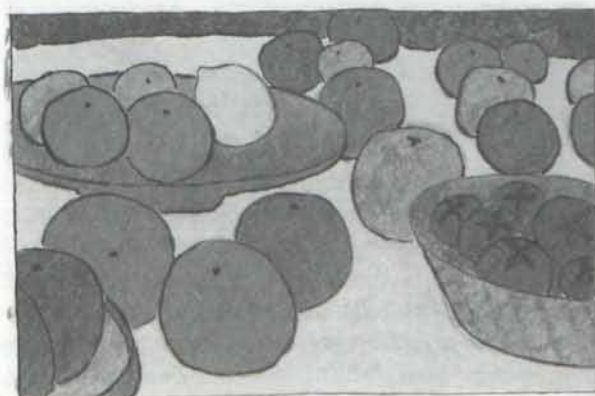
18. *Albion rose*. Monoprint based on Blake's design, 28 x 20 cm., printed in water-based colors in one pull. Impression before finishing. Printed 24 July 2002.

The color-print drawings are monoprints, in that the impressions pulled from the painted surface are not exactly repeatable. The monoprints reproduced here were executed in the method described above. Illus. 18 is a recreation of *Albion rose* before finishing, printed without outlines in one pull in undiluted watercolors from the surface of a sheet of 1/16 inch plexiglass in place of an intaglio plate. Illus. 19 is a color print of a still life printed in watercolors from a 3/32 inch gessoed board (illus. 20) with India ink outline, which did not print. If dark outlines are wanted with the colors, they need only be applied with them, over the India ink outline, as another monoprint from a different gessoed board demonstrates (illus. 21). Blake appears to have used the method more for its textural possibilities (illus. 21) than its reproductive potential. However, he could print two or three impressions from a well-painted plate or board before having to replen-

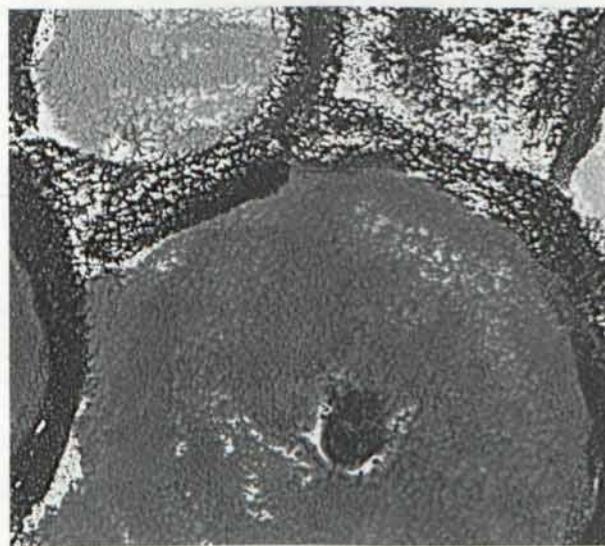
some printed on paper dated 1804, and a copy of *Songs of Innocence and of Experience* (copy E) in 1806. In the latter case, he returned to sets of impressions printed 1789, c. 1794, and 1795 and finished them in watercolors and pen and ink. With the color prints, he did something very similar. Instead of executing new images, he returned to his series of painted boards executed in 1795 and repainted some of them to produce new impressions, dating them "1795" in pen and ink.



19. Joseph Viscomi, *Circles out of the Basket*. Monoprint, printed in water-based colors in one pull. Impression before finishing. Printed 26 July 2002.



20. Joseph Viscomi, *Circles out of the Basket*. Painted gessoed board used for monoprint, after one impression was printed from it. Executed 26 July 2002.



21. Joseph Viscomi, *Circles on a Platter*. Monoprint, printed in water-based colors in one pull. Detail of textures and outlines. Impression before finishing. Printed 18 July 2002.

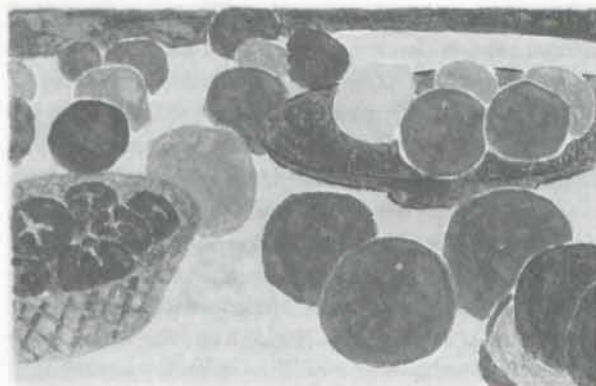




22. *Albion rose*. Monoprint based on Blake's design, 28 x 20 cm., printed in water-based colors in one pull. Second impression pulled from plate without recoloring. Impression before finishing. Printed 24 July 2002.

ish colors. Such subsequent impressions are called maculatures, which are usually lighter and less intense than the first impression (illus. 22 and 23). Increasing pressure for the subsequent prints helps to secure a good impression but is not absolutely necessary (it was not done for the maculatures here, but was done for a third still life impression). Many of the color-printed illuminated plates (relief etchings and intaglio etchings) have maculatures (see "Inquiry" illus. 12, 13 in the print version; 29-32 online).

In *William Blake*, Butlin claims correctly that Blake did not repaint "his plate before taking each impression. In at least some cases Blake seems to have printed two or even three copies of a print without renewing his application of paint to the plate, each impression being therefore weakened in intensity" (83). He does not, however, explain how the second impression is compatible with two-pull printing, nor does he or Phillips appear to realize that maculatures undermine the entire hypothesis of two-pull printing. Neither addresses the issue of maculatures directly and thus they appear to assume that the maculatures of relief and intaglio etchings and, for Butlin, of the large color prints were also printed in two pulls, one for the outline and then for the



23. Joseph Viscomi, *Circles out of the Basket*. Monoprint, printed in water-based colors in one pull. Second impression printed from board without recoloring. Impression before finishing. Printed 26 July 2002.

colors. But this could not be, since the colors and outlines of the maculatures are diminished because they come from the plate just printed; they show, in other words, that there was printable color left on the plate or board from the first pull (even if replenished in some areas). Thus, the relief or intaglio etching or board was not cleaned of all colors in order to print the outline only. Rather, it was printed again, without intervening steps, to produce a second impression. This second impression, from the same plate, is necessarily one pull. Why then would Blake go through all the trouble of registration when a good impression could be produced from the plate in one pull? That second impression again demonstrates the efficacy of one-pull printing.

The core question in this discussion about color printing is not whether relief or intaglio plates *could* be registered (of course they can—though certainly not with just one pin-hole), but whether they could be registered consistently without *ever* showing *any* traces of that registration. We have argued that traces of the second pull are always present if one knows how and where to look, and have argued from much practice in the printing of both intaglio and relief-etched plates, from the close examination of Blake's prints, and from the practice of many other printmakers. We have also argued and demonstrated that both intaglio and relief-etched plates can be printed from both their surfaces and incised lines and shallows simultaneously, and that water-based colors can be used with oil-based inks. Blake pioneered these printing and etching techniques as well as the monoprint and the modern concept of the color print as an aesthetic work equal to painting. A question we asked in "Inquiry" is worth repeating: why do in an intricate and expensive way (two-pull printing) what can be done directly and more simply and less expensively (one-pull printing)? As Hayter and other printmakers knew, there is no aesthetic gain from printing the plates twice. Butlin and Phillips do not claim that Blake could not do what he did in one pull or that two



pulls made for better images. They merely keep asserting, without solid evidence and without refuting our counter-evidence, that Blake consistently used two-pull printing.

Butlin's concluding paragraph returns to the theme with which he began. We have indulged in too much technical detail, focused over-much on the primary evidence, and this has blinded us to larger issues. Only general knowledge, painted with a broad brush, is allowed. We find this approach unsatisfactory for the study of printing technology. Surveys of Blake's artistic development must neither ignore nor contradict material facts. Indeed, one can speculate on the meaning and aesthetic qualities of an art work, but to ascertain its medium, whether the colors are oil or water based, the support paper or canvas, the plate an engraving or a mezzotint, the print pulled once or twice through a press, it is the material facts, discerned by chemical analysis, x-rays, magnification, hands-on experiments, computer enhancement, and other research aids, that will prove most objective and helpful. Avoiding Minute Particulars will not lead to the Palace of Wisdom.

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## R E V I E W S

The Blake Exhibition at Tate Britain, 9 November 2000-11 February 2001, and at the Metropolitan Museum, 27 March-24 June 2001, and their Catalogues.

Reviewed by G.E. BENTLEY, JR.

Blake went with his nineteen-year-old disciple Samuel Palmer to the Royal Academy exhibition of May 1824. Years later Palmer remembered vividly seeing

the image of Blake in his plain black suit and rather broad-rimmed, but not quakerish hat,<sup>1</sup> standing so quietly among all the dressed-up, rustling, swelling people, and myself thinking "How little you know *who* is among you!"<sup>2</sup>

At the dinner at Tate Britain opening the exhibition in November 2000 and next day at the Tate reception, there were no broad-brimmed black hats—indeed, there were no hats at all. But if Blake had been there, or Gully Jimson either, what would he have made of it all?—the discrete sponsors leading off the quadrille, the cataracts of champagne, and room after deftly-lighted room exhibiting a plethora of his works such as the quiet artist-engraver had never seen assembled in one place. Indeed, some of these works had never been in the same room together, and a number of them

1. Blake was wearing his hat indoors; the watercolor by Richard Newton of an exhibition of c. 1794 shows men wearing and doffing their hats (p. 143 in the catalogue here); see the apparent self-portrait of Blake in a rather broad-rimmed hat in the Canterbury Pilgrims design (illus. 1).

2. *Blake Records* (Oxford: Clarendon Press, 1969) 280.