Robert N. Essick, William Blake Printmaker

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Reviewed by Bo Ossian Lindberg

A 283-page study of Blake's graphical methods by an American professor of English? Hardly seems possible. Yet, such a thing does exist, profusely illustrated with 236 reproductions, including some from Professor Essick's own experimental plates. On first learning of such a production one is tempted to quote Dr. Johnson on female preachers and dancing dogs ("It is not done well; but you are surprised to find it done at all") and look no further. Essick's work deserves a better fate. It is a major contribution to the literature on Blake, and the first serious study of Blake's engraving and etching techniques since Todd's and Hayter's works of the 1940s. In my view it is the best work on the subject so far published. Essick's practical experience of printmaking equals that of the best of his predecessors, and he surpasses them in his knowledge of the history of graphical methods, and of the minutiae of Blake's productions in graphical media.

The book is divided into five parts, tracing Blake's development as a graphical artist: "Connoisseur and Apprentice, 1768-1779," "Artist and Craftsman, 1780-1800," "Graphic Experiments, 1788-1822," "Prints, Patronage and Poetry, 1800-1818," and "Synthesis and Mastery, 1818-1827." Each part is divided into three or four chapters. The notes and the lists of illustrations are surprisingly rich in information, and there are two very useful appendices, namely a catalogue of states and impressions of Blake's political prints of 1793-1794, and an analysis of the medium of a 1795 colorprinted drawing. There are eight pages of bibliography, and two indexes. The reproductions are good (only one in color), the paper, printing and binding are first-rate, and the book is a joy to handle.

Essick's study is very thorough, almost exhaustive, as far as Blake's methods of engraving and etching are concerned, and it contains, also, interesting sections on lithography and xyography. His treatment of printing techniques, however, is less thorough, and there are a few glaring inconsistencies in Essick's calculation of the niveau of his readers. He finds it necessary, for instance, to inform us that a copper-plate is purchased from the plate-maker, who in turn has acquired the copper from the brass-founder, and he also describes in detail the conventional methods for polishing the plates, laying the grounds for etching, etc. Good. The book is addressed to an audience professionally interested in Blake, and this audience includes people with a scanty knowledge of graphic techniques. But he does not explain what an India proof is, nor does he try to establish when printing on laid India paper was invented, although he has found evidence that Blake did not take up the technique until the 1820s. How many scholars have noticed the India papers, larger than the designs, but smaller than
the plate-marks, in the Job India proofs? How many know that this paper is of extremely smooth surface, capable of receiving more detailed and brilliant impressions than ordinary copper printer's papers, but too brittle to allow printing, unless it is laid on top of an ordinary copper printer's paper, both wetted, and pulled through the press, thereby pasting the India paper to the supporting paper? I have asked about 15 trained art historians, some of them experts in graphic techniques, and only the late Arnold Fawcus knew anything about the process, and he was the one who informed me about it.

Generally, Essick does not go very deep into the technology of papermaking. Watermarks are dealt with in many places, but there is no attempt at a general estimation of the information offered by them. The same is true of wetting, and the reason why wetting is necessary is not sufficiently explained. All these omissions are not necessarily defects (although I think that the omission of the India proofs is); they are mentioned mainly in order to indicate along which lines further research might be profitable.

The binding media used in printing are hardly mentioned at all. This needs special consideration, because the neglect of binders occasionally leads Essick into error. On p. 24 Essick writes, quoting Dossie's Handmaid to the Arts (1764), that the engraver could make his own printing ink from "burnt 'nut oil'... and Frankfort black," and explains the "nut oil" as "oil rendered from kernels of hazel or walnut." As far as I am aware, hazelnut oil is a non-drier, and I do not know of any method of making it drying. It could be added in small quantities to oil paint in order to facilitate painting wet on wet over a long period—though olive oil or oil of cloves is more commonly used for that purpose—but in printing every retarding of drying times would be undesirable. If Essick knows of any method of making hazelnut oil suitable for printing he should have quoted the evidence. To my knowledge, whenever "nut oil" is mentioned in connection with painting or printing, walnut oil is meant.

When Essick adds that the "manufacture of colored inks required only the substitution of another pigment for the Frankfort black," I doubt the practicability of this simple recipe. First it must be realized that the normal binder for printing ink in the west was and is oil, mostly linseed and walnut oil, which are the best driers. If oil color is printed on paper, the paper will absorb more or less of the oil. This would hinder the printing and also make the paper stained and discolored, and in the end brown and brittle, since oil accelerates the decomposition of the cellulose fibers in the paper to oxycellulose.

In order to make the oil suitable for printing on paper it is necessary to increase its viscosity beyond the point where the paper ceases to imbibe it. The established method for doing so was, as Dossie explicitly writes, to burn it; that is, to cook it in an open vessel for a long time and, in the end, to set it afire. Theodore de Mayerne gives the following directions, said to be those of Callot: "Burn also some nut oil (try that of linseed) in an iron pot. Let it boil until it fumes and gives off smoke, then set fire to it with a match and let it burn, stir until the oil becomes so thick that you have great difficulty in grinding it." After this, the pigment, lampblack burnt without the access of air, should be mixed with a decoct of gall apples in water, and allowed to dry. Ultimately the lampblack should be ground into the burnt oil.

This process of burning will make the oil as thick as honey, but at the same time as black as coffee. Such a binding medium is sure to discolor every delicate tint mixed with it. It is suitable only for blacks and other dark pigments. This is why color printing has been rare in the west until quite recent times. Today it is possible to increase the viscosity of an oil without discoloring it, by boiling the oil in vacuum. Such stand oil is used in modern color printing, but it was not available in Dossie's or Blake's time. It is, however, much slower in drying than the burnt oil, and a siccativ must be added to it for printing.

The binder used, for instance, for Japanese color woodcuts is starch size. Such a binder is of light color and moreover does not attack the paper. I strongly suspect that whenever Blake wanted to print in colors he used an aqueous binder. This problem will have to be dealt with more fully later.

Since color printing was practiced in the eighteenth century, printers and engravers must have had recipes—more or less secret ones—for suitable binders. Some of the pioneers of color printing published their methods. In the 1720s Jacob Christoph Le Bon's Coloritto appeared, and in 1753-57 Jacques Fabien Gautier d'Agoty's Observations sur l'histoire naturelle, sur la physique, et sur la peinture. George Baxter described his process of color printing in his Pictorial Album or Cabinet of Paintings, 1837. I cannot here attempt any identification of binders used by the above mentioned writers. Be it sufficient to say that none of them is mentioned in Essick's book.

One should consider especially the possibility of making a light-colored, viscous, fastdrying oil by cooking it over white lead in the sun. Such oils are mentioned in medieval sources, though they are there recommended for painting rather than for printing.

For black-and-white prints Blake probably preferred the customary burnt-oil binder, especially for intaglio printing. In this case printing would have to be done on wet paper, and then a water-soluble binder would easily cause blurring of the outlines. I have never seen this effect in any of Blake's intaglio engravings. In intaglio printing wetting is necessary; otherwise it would be very difficult to force the paper into the incised lines to receive the ink. In stereotype printing wetting is often omitted, especially when the ink contains a water-soluble binder.

It is likely that Blake used aqueous binders for most of his stereotype prints. Printed surfaces in the illuminated books seem to have taken water-color washes remarkably well, which would hardly be
the case if an oily vehicle had been used (it is, of course, possible to paint in watercolor on oil, if only the oily surface is prepared beforehand with ox gall or the juice of garlic, onions or potatoes, but there is no indication that Blake ever did this). The reticulation of the surface in many of Blake's stereotype prints indicates that the paper was not wetted. Why? Most probably because the binder was soluble in water, and would have caused blurring on moist paper.

It seems that Essick in passing over the difficulties of color printing was misled by the light-colored stand oils available today.

It should be noted that Essick on p. 102 says that "well soaked paper usually tends to absorb the ink." This is what many experienced practitioners believe, but it is only what seems to happen. Actually the reverse is true, as long as oily binders are used. The wet paper assists the effect of the viscous oil and hinders absorption of ink. It is common knowledge that oil and water do not mix easily. For this reason printing on wet paper gives a smoother result. It is just because dry paper absorbs some of the oily binder that printing in oil on dry paper results in rough reticulation of the printed surface. Part of the binder leaves the pigment, and the ink gets so stiff that it adheres to the plate. It should also be noted, as already pointed out, that the dry paper is more difficult to bring into uniform contact with the plate. For these two reasons the plate regularly remains dirtier after printing on dry paper, than if well soaked paper is used.

Essick's chapter 8 deals admirably with technical evidence for dating some of Blake's intaglio engravings. I am happy to see that he dates the first state of the Job (the companion of Enriel) 1793, and I think that his redating of the second state probably after 1820 is a great improvement on my own tentative dating 1797-98. Especially valuable is Essick's remark (p. 220) that no datable prints by Blake are on laid India paper until the published proofs of the Job series printed in the winter of 1825-26. But four of the six known copies of Job and its companion Enriel are on that paper. Essick also thinks, rightly, that all extant states of Enriel are second states, and that the date 1794 is a survival from the lost first state. The two companion plates seem to have been reworked at about the time Blake was engraving the Job set.

Essick's remark on p. 67 about the bevelling of the edges of copperplates is a memento to anyone who, by measuring the plate-marks, tries to establish which prints were done from the recto or verso of the same plate. Since the necessary bevelling could vary, the platemarks from both sides of a bevelled plate are unlikely to correspond exactly. Printing from unbevelled plates is not safe, because the sharp edges are then likely to damage the paper—in fact they often cut off the margins.

I would like to add that the use of both sides of the plate for works meant to be printed in intaglio would preclude the usual way of making corrections by cutting away the copper around defective lines and levelling the hollows by hammering from the back—this process would disfigure the back. It would have been very difficult for Blake to use both sides of the same plate for such extensively reworked engravings as the second states of Job and Enriel. In that case Blake would have had to spoil the first state of one of them, say, the Job, in order to rework the Enriel; pull all the prints needed, and then destroy it, in order to rework the Job. Very cumbersome! And how get rid of the plate-maker's stamp? He would have had to remove it in the same way as above, alternately from the back and from the front, and that already in the first states, even if he did no other corrections at this early stage. For this reason I cannot agree with Essick's suggestion that the companions Enriel and Job were done on both sides of the same plate.

The use of both sides of the plate is rational only for stereotype etchings, and only in this case can it be proved that Blake did so. Whenever he did intaglio work on the back of a used plate the original design was treated as something that could be sacrificed without loss—in some cases inartistic illustrations done by others than Blake, such as plates 14 and 16 of the Job series.

Essick's solution of the difficult problem of dating Albion Rose is a great improvement upon previous attempts (pp. 70 ff.). The ruled sky is recognized as a survivor from the lost first state, and the final state is dated after 1803. The colorprints, printed in stereotype from the intaglio plate 1794-95, show much of the intaglio work in white line against the color. This fact has made possible the reconstruction of the appearance of the plate before the work that was added after 1803. The worm and the moth are missing in this state, and, of course, the caption. Yet Essick has missed the fact that the BM color print does show a "worm," or what looks like a worm, below Albion's left foot. It is not engraved in the plate, and is possibly only an accident of color printing. I think that this accident is the origin of the introduction of the worm in the final intaglio state. The date 1780 belongs, according to Essick, to the invention of the design, not to the execution. I would like to suggest another possibility: that the date and the ruled sky belong to a lost first state, actually executed in 1780, that the lines underlying the colorprints of 1794-95 show added work from an otherwise lost second state, and that the final state is the third. The radical juxtapositions of style visible in Essick's "second" state are as much a part of his "first" state. This indicates that there was a state earlier than Essick's first. Notice also that the signature "WB inv" is not on a line with the date, and that spacing indicates that it is a later addition. Therefore I believe that the date is a survivor from the first state, and that the signature was added in the third.

A minor carelessness on pp. 70, 71, should be pointed out. Blake certainly did not print with "pigment" alone, without a binder; an expert on technique of Essick's capacity should write "ink" or "paint."
I feel that Essick is right when he says that the illustrations for Young were published in an unfinished state. I also agree with him that most of them are unsuccessful.

Essick’s chapter on Blake’s relief and white-line etching (pp. 85-120) is by far the best treatment of the subject so far published: excellent research along both historical and experimental paths. Appropriate quotes from manuals and treatises that were known to Blake and his contemporaries are followed by a step-by-step reconstruction of Blake’s methods. Essick has scrutinized Blake’s prints and the one surviving plate fragment for technical evidence, and has himself executed graphic works according to the processes likely to have been employed by Blake. He is able to show that Blake could step-etch his stereotype plates in order to hinder underbiting and insure sufficient depth of biting, that he could make corrections by building up letters, etc., on bitten-down areas, that he could print successfully from extremely low reliefs, and that he could control the effects of granulation in printing, and much more. There is also an excellent account of how electrotype replicas of copperplates are made, which explains why the electrotype Songs cannot be used as evidence for estimating the depth of biting in Blake’s stereotype plates: the hollows were deepened in order to facilitate clean inking.

Yet I still think that Blake did not write the lettering backwards as Essick maintains, and I believe that more could be made of Cumberland’s letters and Blake’s own technical memoranda than Essick does.

According to John Linnell, in a later-deleted annotation in his copy of J. T. Smith, an “extraordinary facility seems to have been attained by Blake in writing backwards.” Notice the force of the word “seems”: Linnell was not sure about Blake’s way of working. Cumberland wrote that Blake excelled in the art of “perusing backwards”—whatever that may mean. Essick thinks that Blake in Cumberland’s view wrote backwards—but why did Cumberland not say so?

Whatever Blake’s method, he was luckier than Cumberland himself, whose invention of etching text on copper-plates later to be printed in intaglio produced reversed lettering, which had to be read with the aid of a mirror. It is interesting to see that Cumberland had a remedy for this: to offset the lettering by taking counter-proofs of the reversed prints before they had dried. This was, of course, a makeshift: such counter-proofs look weak and thin, and have no artistic value, as Hind points out. Blake would not have found this method satisfactory.

It would be better to put in the offset stage earlier, in transferring the text to the plate. I agree that this second offset process, suggested by Hayter and Todd in their attempt at reconstructing Blake’s methods, to some degree hypothetical. In their opinion, the writing was done with an asphaltum-based medium rightways on a sheet of paper which had been previously soaked in a solution of gum arabic and allowed to dry. Then the sheet was placed, face down, on a hot copper plate and passed through the press. The stopping melted and stuck to the plate. After this the plate was immersed in water, the gum was dissolved and the paper floated off, leaving the lettering in reverse on the plate. Then the design could be drawn with the stopping directly on the copper and the text could be corrected if necessary. Finally the flats were etched down, leaving lettering and design in stereotype. It should be noted that in some early prints the text is slightly slanted compared to the design, which seems to support the hypothesis that the lettering was not transferred to the copper at the same time as the design.

There is no direct documentary evidence in support of this reconstruction, but it is clear that Blake knew an offset process for transferring a drawing to a metal plate. In his Note-Book Blake wrote a memorandum on how to “Engrave on Pewter. Let there be first a drawing made correctly with black lead pencil [on a sheet of paper]. Let nothing be to seek. Then rub it off on the plate covered with white wax, or perhaps pass it through the press. This will produce certain & determind forms on the plate & time will not be wasted in seeking them afterwards.” The offset tracing would then serve as a guide for the graver. The same process could be used on copper, and the traced lines either followed with the etching needle, which would cut through the wax ground and lay the copper bare, exposing it to the subsequent action of the acid, or cut with the graver directly into the metal. Lettering could be transferred in this way as well as design, but in the case of lettering the printing would appear uncolored against an inked background, which would make them difficult to read.

We are thus brought back to Cumberland’s method of printing text in intaglio, but with the essential addition of a reliable method for transferring lettering, written rightways on a sheet of paper, to the etching ground, thus overcoming the difficulty Cumberland experienced in getting the printed text reversed. It is only natural that Blake should inform Cumberland of this method, which he did in his letter of 9 December 1795: “Take a cake of Virgin’s Wax (I don’t know what animal produces it) & stroke it regularly over the surface of a warm plate (the Plate must be warm enough to melt the Wax as it passes over), then immediately draw a feather over it & you will get an even surface which, when cooled, will receive any impression minutely.” This is certainly how Blake did those of his illuminated books which were printed in intaglio, namely The Book of Ahania and The Book of Los (both etched), For Children (etched) and For the Seasa (engraved). These works were therefore done in Cumberland’s method, perfected by Blake.

It would, of course, be possible to print plates of this nature as woodcuts, in stereotype, to produce a white-line print. Examples are frequent especially in America, Europe, Milton and Jerusalem, but only for designs, not for lettering. The only notable exceptions to this rule are the title of Milton and pl. 26 of Jerusalem, bearing only short texts in large lettering; while the white-line lettering in the first state of the frontispiece for
Jerusalem is almost illegible, as witnessed by a surviving trial proof; the texts were wisely suppressed in the final state.

In two memoranda in the *Note Book* Blake described the method of such "woodcuts on pewter" and "woodcuts on copper": "To Woodcut on Pewter. Lay a ground on the plate & smoke it as for Etching, then trace your outlines [ & draw them in with a needle del.], and beginning with the spots of light on each object with an oval pointed needle scrape off the ground, [ & instead of etching the shadowy strokes del.] as a direction for your graver then proceed to graving with the ground on the plate being as careful as possible not to hurt the ground because it being black will shew perfectly what is wanted [wood del.]." "To Woodcut on Copper Lay a ground as for Etching, trace & of instead of Etching the blacks Etch the whites & bite it in."  

Evidently the tracing on the black ground was to be done in the same way as on the white ground. In that case red chalk lines would show better than black lead pencil lines, but also black lead lines would be plainly visible, especially facing the light—and it is known that Blake worked facing the light. Both of the processes described are meant for white line work, that is, stereotype. But Blake almost never used the process for etching lettering, for obvious reasons: since the whole plate was covered with a wax ground, inked lettering of the kind forming the bulk of Blake's illuminated printing could have been done only by removing the ground around the letters. Considering the amount of text in most of Blake's books, and its minute size, this would have been impossible. The processes described in the two memoranda quoted above were suitable only for making designs. I think that most of Blake's white line etchings were made according to his recipe for "woodcut on copper": the frontispiece of *America*, most of the whole-page designs for *Milton* and *Jerusalem*, etc. It would also be possible to cover only part of a plate with the wax ground and execute plates combining white-line designs with lettering done with the asphaltum stopper.

Whichever combinations were used or not used, for work on the plates, the plate was printed in stereotype, and had to go through the press only once.

I know of only two possible examples of lettering to be printed black from a stereotype plate, and not painted on the plate but picked out by removing the black-printing ground around the letters. One is the title of *Jerusalem*, showing large lettering, and the other is the line afterwards added to the top of plate 33 [37]: "And One stood forth from the Divine Family & said." In this case Blake etched the black-printing text free of the ground as far as the word "the," the rest of the line being in white on black. Thus we know that Blake found it too cumbersome to pick out even a single line of normal-sized lettering. For other such additions he preferred simple white-line against black: the words "SHEEP" "GOATS" on pl. 3, the quotation "Movos o Icsous" on pl. 4, and the line added at the bottom of pl. 40 [45]. This should make it clear that none of Blake's surviving recipes for etching gives us any information about his main technical invention, that of etching text and design in stereotype. The bare mentioning of the process in *The Marriage* and in his *Prospectus* 1793 betrays no details.

We still do not know if he wrote the text directly on the copper backwards, or if he used an offset process similar to that reconstructed by Todd and Hayter, and also, it should be noted, similar to the transfer process Blake used for etching on a wax ground. We only know that he could not have used the wax ground for the lettering of works printed in stereotype.

Personally I doubt that Blake wrote the bulk of the lettering directly on the plates. There are no mistakes characteristic of backwards writing in, for instance, the 50 plates of *Milton* and the 100 plates of *Jerusalem*. But there are reversed letters in short texts, such as titles. The "Y" is reversed in the title of *AMERICA A PROPHECY* (Y instead of Y), likewise in Euromy pl. 3 "A PROPHECY," and in the title of *Job* the "A" in "ILLUSTRATIONS" is reversed (A instead of A). The most likely explanation is that these texts requiring only a few letters were done directly on the copper, with the result that Blake got a few letters reversed, but that the bulk of the lettering of Blake's illuminated books, not showing any reversed letters, was written rightways on paper and transferred to the plates in an offset process.

My main reason for supposing that Blake used a transfer process for lettering is that the bulk of text in his illuminated books does not have the characteristics of reversed writing. The uniform right-hand slant typical of his mature penmanship never occurs in texts known to have been executed directly on the copper (e.g., Job marginalia of the 1820s). It does not occur, either, in his earliest experiments with illuminated printing, such as the tractates on religion (1788) or *The Song of Dunoose* (1789). It is first seen in *Thel* (1789), and from then on remains a constant feature of his work. Therefore I think that Blake's illuminated printing, invented in 1788, was perfected in 1789, when he added a method for transferring lettering to the plates.

I agree that we cannot be one hundred percent sure about how Blake proceeded, but in the light of the evidence available today I would prefer the above interpretation to Essick's.

To summarize the preceding discussion: Blake used two types of ground for his stereotype plates: (1) an ordinary wax etching ground, white or smoked, capable of receiving a counterproof impression of a pencil study, mainly used for the execution of pictorial designs in white line etching, and (2) a stopper of asphaltum and linseed oil, much more fluid, and, after drying, harder than the wax ground, intended for lettering and black line illustrations for Blake's poems.

That Blake's work was divided thus is made clear by the appearance of his books. In *Milton* the white-line etching is reserved for separate plates bearing whole-page designs similar to the *America* frontispiece, in *Jerusalem* for clearly defined parts of plates (4, 11, 28, 31 [35], 33 [37], 41 [46], 50,
The interpenetration of white line and black line work occurs only in the period 1789-94, in some of the Songs, and, notably, in America and Europe. Here Blake has used white line work on areas covered with the stopper, in order to add modelling and definition to the blacks. That his stopping medium did not easily yield itself to the etching needle is witnessed by the fact that most of this work was done with the graver (America 8, 9, 11, Europe 2, 3, 4, 8).

The poems printed in intaglio (Abhant, Book of Los) were done on a wax ground onto which the text had been counterproofed in accordance with Blake's memorandum.

In chapter 10, on coloring, Essick ignores the properties of some aqueous binders, namely gum and glue. On p. 122 he quotes J. T. Smith who wrote—rightly—that gum has a tendency to crack and peel off after drying. But Essick does not mention the fact that gum is the normal binding medium in western transparent watercolor painting (including wash drawing in ink), and that the paint layer in such watercolors never cracks. This is so because of the extreme thinness of layers in transparent watercolor. As soon as the layers achieve any appreciable thickness they will crack more or less, depending upon the thickness of the layers and the nature of the support. The rougher and more absorbent the latter is, the better.

Thus gum is an excellent binder for thin aquarelle, but unsafe for opaque painting. For such work glue has always been preferred, but since glue water has to be used hot (otherwise it would gelatinize and become unmanageable), painting in glue size is somewhat cumbersome. The pot with binding medium must be kept over coals continually, yet it must not be allowed to boil. Boiling would diminish the binding power erratically. The pigment has to be ground beforehand with pure water, and the pigment pastes should be heated, too, especially in cold weather. It is true that fish glue is known to remain liquid at room temperature, but Blake never mentions such glues, and all grades of fish glue, save Russian sturgeon's glue, are considered inferior as media for artistic painting. They are highly hygroscopic, and Blake's glue was not, as J. T. Smith informs us.

For this reason I think that Blake used glue only when he had to, for opaque painting. The thin washes employed for finishing prints by hand were most probably executed with the more convenient gum medium.

Essick has correctly identified the passage in Cennino Cennini which Linell had in mind when he said that Blake had found his own binder mentioned in Tambroni's edition of Cennini's tractate. In his note 6, p. 122, Essick queries Rossetti's mention of an 1822 edition of Cennini and writes that he had been unable to find it. I can inform him that none exists. Rossetti's reference is a simple mistake for 1821.

On p. 123 there is an excellent quote from Rees' Cyclopedia on "distemper": "all ancient pictures are said to have been painted before the year 1410" in that medium. It is interesting to see that Blake's view was shared by his contemporaries, though in this context one should have wished for a reference to Vasari's story of Jan van Eyck inventing oil colors about 1410.

Essick says that Blake could have made his colors more opaque by adding "less water or more size." This is an oversight. More size would effect the opposite, namely greater transparency, as anyone knows who has tried it. What is needed is more pigment. This, of course, is easily accomplished by adding less water.

Very interesting is Essick's account of Blake's color printing process (pp. 126 ff.). The shallow etching of the plates permitted Blake to print simultaneously from bitten and relief surfaces, that is, in stereotype and intaglio at the same time. In using this process Blake seems to have been more than 100 years ahead of his time. It is often employed in modern color etching. He was also one of the first to employ consciously the chance effects of inking and printing.

Essick's criticisms of Tatham's account of the color printing process and of W. Graham Robertson's experiments in color printing with pigments bound with egg yolk are valuable. That Tatham was wrong in assuming that Blake printed in oil is clear. Both the colorprints pulled from copper plates and the large prints pulled from cardboards have taken watercolor washes well, and Blake inscribed some of the latter "fresco," which with him meant watercolor. These inscriptions do not allow us to identify the binder with certainty; Blake would have called any watermiscible paint "fresco." The thickness of application in some of the color prints would exclude gum arabic and tragacanth, which would have cracked and scaled off if so applied. Glue size would have been good, but would have needed heating. This would not be very difficult when printing from copperplates, but how heat the cardboards which Blake used for the large color prints? Here a third type of binder would be needed. I think this is the reason why Graham Robertson assumed that Blake printed with yolk of egg—but it is also evident that his suggestion was wrong.

In this context it is of great interest to read the analysis by John W. Twilley (Department of Chemistry, University of California, Riverside) of the binding medium in Essick's color print of Lammas. It was found to be gum, but none of the ordinary gums. It was either of Cochlospermum gossypium, of Astragalus verus or of a Sterculia species. These gums respond to chemical tests in the same way, so further identification was impossible. These gums can be dissolved in water only with strong heating, remain liquid after cooling, become almost insoluble in water after drying, are not hygroscopic, do not crack easily, and do not discolor delicate tints. They are exactly the right type of binder for a large print in opaque colors.

Essick warns the reader that more tests have to be made before we can be sure about which media
Blake employed for his colorprints; Blake could have used other binders for other prints. Yet I cannot resist the temptation to jump to conclusions: that the binder in Essick's *Lamancha* was used for all the large colorprints, and for the color prints from copper plates either this same gum or an ordinary glue size. At least technical evidence favors this assumption. But I wonder where Blake obtained these exotic gums. They do not seem to have been in ordinary use by artists.

On p. 161 Essick quotes an inscription, probably by Cumberland, from the back of the Croft-Murray copy of the lithograph *Snood*. It begins: "White Lyas--is the Block / draw with Ink composed of Asphaltum dissolved in dry? / Linseed Oil ..." I have not seen the print, but I think that the queried "dry" should read "drying." No one could draw with dry linseed oil—not to speak of dissolving asphaltum in it—while drying linseed oil means an oil, made more drying by boiling, perhaps even burning, with or without the addition of a siccative (lead oxide or white lead). Such an oil is commonly called a varnish, and since asphaltum is often used as a dark brown pigment, Blake's composition is closer to J. T. Smith's lithographic ink "compounded of black mixed with varnish" than Essick thinks.

Blake further powdered "rotten stone" to the wet design, I think in order to raise the lines over the surface of the stone, which would make inking easier. He did no etching; the Lias stone is porous enough unetched. This is of great interest, because Essick rightly assumes that this lithographic ink was similar in composition to Blake's stopping varnish for making stereotypes on copper. Whether a burnt oil works better than a boiled one remains to be tested. Personally I doubt the necessity of adding a drier.

Incidentally, some of the text on the verso of the Croft-Murray copy shows through the reproduction of the recto in pl. 166. I have tried to read it with the aid of a mirror, but failed. The verso should have been reproduced, too, especially since the correct reading of the annotation is in doubt.

Part four (chapters 12-15) covers Blake's career as a graphic artist 1800-1818.

Desideratum in chapter 13: that a specialist would analyze thoroughly Blake's penmanship—the short notes appended to Mona Wilson's *Life* are not enough.

On p. 204 Blake's notes on "Demonstration Similitude & Harmony" as "Objects of Reasoning" opposed to "Invention Identity & Melody [which] are objects of Intuition" are misunderstood. "Similitude" signifies similitude within a work of art: all lines, for instance, are similar, and do not discriminate character. It does not mean similitude between model and copy, as Essick thinks. "Identity" means identity of execution and character. Moreover, Blake did not organize the elements of his execution into "a rhythmic whole," which would necessitate repetitive patterns and monotony. The whole he aimed at was, to use his own word, "melodious." It appears from p. 206 that Essick understands this. Perhaps his remarks above are merely slips of the pen.

Chapter 15, "Printmaker as Poet," deals with graphic allegories in Blake's poetry, and is on the whole the least convincing part of the book. Essick manages to prove his point only by not distinguishing between hammering and casting (p. 209) and between ploughing and harrowing (p. 212).

Part 5, "Synthesis and Mastery 1818-1827" is excellent. In chapter 16, "Linnell," Essick demonstrates the extent and nature of Linnell's influence on Blake, underrated or ignored by previous writers. He shows that the style of Blake's final intaglio masterpieces such as the *Job* and *Dante* engravings evolved out of Linnell's and Blake's collaboration on Linnell's portrait plates. This chapter was a real eye-opener to me; I am now convinced that Linnell helped Blake to realize his own powers and surpass his previous achievements in intaglio engraving.

In the chapter on the Virgil wood engravings Essick justly remarks that "even some modern admirers of the Virgil blocks [Raymond Lister] have found them technically deficient, but nothing could be further from the truth" (p. 227). Yet, on p. 226, he himself comes close to the error he criticizes, in his comment on the two versions of cut 3, one by Blake, the other by a journeyman engraver. He writes of the "great difference between the highly dramatic original and the competent but dull copy," and adds that all "the journeyman's care . . . cannot retain the vigor and intensity of Blake's work." I would like two corrections here: "incompetent and dull" for "competent but dull!" and "the journeyman's *look* of care" for "the journeyman's care."

These prints really offer the best opportunity for demonstrating that invention and execution are one, or, more properly, that execution is the organization of form that makes the invention visible.

Look carefully at the journeyman version (Essick, pl. 206)! Begin with the details: the hands and feet, and the lineaments of the countenances. Examine Thenot's right hand: it has been squeezed out of shape, the little finger and the index finger are dislocated, the thumb cut away, the palm is too thin and too concave. The other hands and the feet are too small; Colinet's feet are badly formed out of some kind of too sloppy dough. In the original all these details are perfect; hands and feet are correctly formed, the relationship between their parts is right, the members are solid, give a sense of volume, and seem alive. The same is true of the faces. In the copy Colinet's head is supported by his hand: he is tired. In the original his hand is under his chin: he is brooding. And consider Thenot's change of gesture: in the copy he is shown speaking about some unspecified topic to Colinet; in the original his body and arms are one with the tree laden with fruit and with the sun; they express most eloquently the message of his speech: look, I am like an old tree in the autumn . . .

Now examine the execution of the whole: the figures of the original have volume, look solid, monumental and grand, and also give the impression of having real bodies circumscribed by the folds of
their garments. In the journeyman version they look flat and disintegrated, like sheets of cardboard streaked with painter's ink. And notice in the original, the effect of strong light shining in darkness, while the copy is grey, and lacking in contrast.

Blake's own wood engraving is not only more spirited than the copy: it is the only one that can be praised for any mechanical correctness. This is made clear if we imagine both designs blown up to the size of a wall: the original would make a good design for a monumental fresco, while the copy would look ludicrous, like a matchbox ticket of elephantine size.

I find it inconceivable that anyone at any time could have preferred anything in the journeyman version to Blake's original. I would have liked to see this comparison made in Essick's book, to silence forever those who think that Blake's execution of the Virgil wood engravings is amateurish, or at least to make them examine the works carefully before they pass their judgment. In my view it is very difficult to find woodcuts that equal Blake's in mechanical excellence.

What is at issue here is not Blake's Virgil woodcuts alone. It is a question of the way we look at art. The idea that execution is different from inferior to invention or conception is a product of academical art school ideology, which Blake combatted in his marginalia to Reynolds and his Public Address. To no avail: Expressions such as "correctness," "technical brilliancy" and "mechanical excellence" are still considered pejorative, and artists we like are rather praised for their "dramatic quality," their "intensity of feeling" or something like that. This abuse of language has influenced even the strongest minds of our day. Conceptual art has finally divorced the brain from the hand and left the former alone without adequate means of articulation. Blake knew that the essence of art is the fusion of intellect and handicraft, and we should consider his message carefully: "Daughters of Beulah! Muses who inspire the Poets Song / ... Come into my hand / By your mild power descending down the Nerves of my right arm / From out the Portals of my Brain where by your ministry / The Eternal Great Humanity Divine planted his Paradise." 26

Essick's final chapters on the Job and Dante are among the best in the book. The use of the stipple for the first lines in the Job and of the drypoint in the Dante is carefully analyzed. Essick further identifies the burin in the margin of Job pl. 18 as an eighteenth century knife tool of the type Blake was accustomed to from his apprenticeship at Basire's. Incidentally, I think that the engravers Blake used for his wood engravings were of this type, and it is therefore interesting to know that he owned such a tool. They work better on wood than lozenge gravers, and modern tools for work on end wood are generally of the same type.

Essick's description of the progress of work in the different states of the Job makes full use of the rich material--in no other instance have so many unfinished states been preserved. Here we come closer to the actual labors of Blake the engraver than ever before.

Some of my criticisms above may seem bulky, but this does not mean that I have not enjoyed the book immensely. It should be realized that most of the disagreements are about a single topic, the binding media used for printing and painting. If Essick's treatment of binding media is not quite satisfactory, there is much in his book to make up for the deficiency.

Essick's prose is vivid, powerful and clear, his argument sound, his pages tightly packed with information, his way of thinking new, original and closely knit to artistic practice. In technical enthusiasm he goes further and deeper than any professional art historian I know of.

1 "Brusils aussi de l'huile de noix (essayé celle de lin) dans un pot de fer la faisant bouillir tant qu'elle s'exale & face funé, alors avec une allumette mettez y le feu en le remuant brusils jusques a tant que l'huile devienne fort espaisse de sorte que vous avéz beaucoup peine a briser." Theodore Turgot de Mayerne, Plustonja Sulpitjonja & quae subtlerum artium (1620), S. M. Sloane Ms. 2052, fol. 38 verso, quoted from the ed. by Ernst Berger, Beiträge zur Buchstahlgeschichte der Halifikse, IV Folge (Munich, 1901), p. 166. See also p. 160, where de Mayerne says that he had the Callot recipes from Jehan Pettitot, who in turn had obtained them from "Vignon excellent graueur qui a longtemps servi Calot." 27

2 The particulars of the invention do not seem to be definitely known, but it is assumed that the Dutch introduced this oil in the last century. See Ralph Mayer, A Dictionary of Art Terms and Techniques, (London, 1969), p. 375.

3 Le Bon's Colorito; or the Harmony of Colouring in Painting: Reduced to Mechanical Precepts, under Easy Precepts, and Infallible Rules. London, n.d., is inaccessible to me. Gautier d'Agoty's Observations mentions no technical details--the binder is only described as "une colle & un vernis" (I, p. 139), its working properties are praised, but nothing further is said about its composition. There is a reference on II, p. 127 to an article explaining "l'art d'imprimer des Tableaux sur couleur" in Le Mercure, July 1749, but I have been unable to check this reference.

4 The earliest surviving recipe for cooking an oil in the sun over white lead is in Heraclius, De artibus romanorum, Book Three, added about 1200 to the first two books, which are older. For a succinct summary of early printing methods see E. Kraus, "Die frühen Geschichte der Ulfarbe in der Tafelmalerei nördlich der Alpen," Von Fabre und Farben (Albert Knoedelli Festschrift) (Zurich, 1980), pp. 21-29.

5 "Absorb" is possibly a misprint for "absorb." 28


7 George Cumberland, "Hints on Various Modes of Printing from Autographs," A Journal of Natural Philosophy, Chemistry, and the Arts, 28 (1811), p. 56. Cumberland wrote "perserving backwards," not, as Essick says on p. 90, "to write backwards on copper." See also Blake Records, p. 212 n. 1.


THE LEAST BLAKE


Reviewed by G. E. Bentley, Jr.

This little work seems to have been overlooked in the bibliographies of Blake in Blake: An Illustrated Quarterly, the MLA annual bibliography, The Romantic Movement bibliography, and elsewhere. The reason for such oversight is plain enough, for it is only the size of a thumb-nail: 5/8" x 3/4" (1.5 x 2.0 cm.), and it is "limited to 300 numbered, signed copies," according to the colophon.

The contents are moderately straightforward; an anonymous "Introduction" (pp. 5-6) and "many" (nine) poems from the Songs. The "Introduction" says, on the whole truly enough, that the text "retains his archaic spelling and unconventional capitalization where possible." The second most striking feature of the tiny text, however, is the way it has been abbreviated. The title and the word "I" in l. 18 have dropped out of the "Introduction" to Innocence, and half of "Infant Joy," the second stanza, has disappeared.

The price of the work, at least the price paid for it to an antiquarian bookseller ($29 = about $70), may make it the most expensive uncolored literary work by Blake per square centimeter ever sold--68¢/cm². It is far beyond the Blake Trust facsimiles and even surpasses uncolored Blake originals; Songs of Innocence and of Experience copy h, which sold for $15,000 in 1981, comes to only 47¢ per square centimeter.

11 See David V. Erdman, The Illuminated Blake (London 1975), pp. 25 (Religion 8), 29 (Religion 7), 9 (Religion 6), 38 (Songs 3). It should be noted that this tilting only occurs in Blake's earliest attempts at illuminated printing, and that it could have been produced by a number of different accidents.


13 K 790. It is odd that Blake did not know that virgin's wax is produced by the honey bee. It was originally made from honeycombs unused by the bees, and therefore unsold and almost white. Since this grade is very expensive, it is common practice to let the bees use the combs, and afterwards wash the wax by boiling it in water with alum, and eventually bleach it in the sun. This purified bee's wax is commonly, though improperly, sold under the name virgin's wax.


17 Note-Book, p. 10, K 440.

18 See the description of Blake's working room at Fountain Court in H. H. Gilchrist (ed.), Anne Gilchrist, Her Life and Writings (London 1887), pp. 261 ff. (Bentley, Blake Records, p. 566).


20 Blake Records, p. 472.

21 Blake Records, p. 33 n. 3, and p. 472.

22 Giuseppe Tambroneli's edition of Cennini was the first, and bears the date 1821 (reprinted 1965). The next was by Carlo e Gaetano Milanesi in 1859, reprinted 1975 a cura di Fernando Tempesti. The third was by Renzo Simi, 1913, reprinted without notes and introduction in 1943; and the second edition of Renzo Simi supplied the text for Franco Brunelli's annotated editions of 1971. The most recent edition from the original ms. is by Daniel V. Thompson, 1932. Blake scholars should quote Tambroneli. Later editions, based on manuscripts inaccessible to him (he knew of the Biblioteca Laurenziana ms., but had not seen it) are very different from Tambroneli's.


25 K 562, 563, 577.

26 K 301 (Wilson pl. 2). A similar idea was put forward by Michelangelo in his sonnet No. XV in the Guasti edition: 'Non ha l'ottimo artista alcun concetto, / Ch' un marmo solo in sè non circondriva / Col suo sovrano: e solo a quello arriva / La man che ubbidisce all'intelletto.' See Louisa Maciehose and G. Baldwin Brown, Italian devotion (1907; rpt. New York: Dover, 1960), p. 180.