THE COTTON GENESIS AND ITS STUDENTS

The Cotton Genesis (British Library, Cotton MS. Otho B. vi) was written and illuminated at some point during the period of the fourth to sixth centuries AD, and very badly charred in the Cotton Library fire of 1731. Since 1979 I have been recording all the decipherable features of the 200 or so surviving miniatures as full-size copies. These are not reconstructions, since I have not attempted to supply anything which is not visible to the naked eye; my intention has been to make available at a glance features which often can be read only with great difficulty (e.g. by careful comparison of the recto and verso of a leaf) on the fire-damaged originals.

My interest in the project began when I prepared a number of ink wash monochrome renderings, for a Dumbarton Oaks-sponsored project undertaken by Professors Kurt Weitzmann and Herbert Kessler, of a group of miniatures which were on the most legible of those pages too badly damaged for simple photographic reproduction. (The results of their work are to appear as The Cotton Genesis, British Library, Codex Cotton Otho B. VI, though some ideas have already been adumbrated in the Kurt Weitzmann contribution to Otto Demus’s book The Mosaics of San Marco in Venice). During my work on these, I came to a conclusion much less pessimistic than that originally maintained by Weitzmann and Kessler as to the number of miniatures which could yield meaningful results. Not unnaturally, the experience of reading the more legible examples over the hundreds of hours required to make accurate copies provided a greatly sharpened ability with which to approach the ‘write-offs’—a knowledge of what sort of thing might be significant and, I hope, an instinct for what to grasp and pursue and what to reject.

Having decided that all the miniatures were worth recording using the simple techniques I had evolved, I went on to complete the set of monochrome copies beyond those seventy-odd commissioned by Weitzmann and then began to make colour versions—a process in which I am still involved. During the past four years I have been fortunate in receiving financial aid from the British Academy, and as a result the work has continued steadily. Although another year will be required to complete the work, it is now...
clear that the coloured copies are substantially more revealing of stylistic features than the monochrome renderings alone were, and it therefore seems worthwhile at this point to present some observations on this aspect of the manuscript.

It would be tedious to give here a full account of the recording techniques which I have used. Perhaps only those who have undertaken similar projects, where the usual photographic aids are virtually useless and the well-being of the original paramount, will appreciate the extent to which accuracy has to be achieved in stages; work done away from the manuscript, in materials which cannot be used in its proximity, has to be compared to the original and corrections noted, which are again finalized away from the manuscript and re-compared—and so on. Generally speaking though, the usual lighting resources have not provided any short-cuts to decipherment (although the fibre-optic light has clarified many details) and my initial pencil versions have been made by placing a gridded plastic sheet over the original and recording the contents of each square centimetre on similarly gridded paper, eliminating as far as possible lines or tones staining through from the reverse of the leaf, scorch marks, and other distractions. In some cases the structure of a miniature has only become clear to me at the end of this process, and can hardly be appreciated from an unaided inspection of the original. Ink wash drawings have been traced from these pencil versions on a light box, then compared with the manuscript and corrected. These ink wash drawings were the product of the first phase of my work on the Cotton Genesis. Although I have since prepared outline drawings of the sort which a few other brave souls have already made of certain of the miniatures, I have found that such drawing could only be accurately made after the preparation of fully tonal versions, better still after the preparation of coloured versions, and that attempts to make them directly from the miniatures tend to mistakes and misunderstandings. Indeed my own outline versions, fugitive versions of which have formed the basis of my colour renderings, have needed constant correction of small errors introduced whilst making them from the fluidly tonal ink wash copies, which themselves could hardly have been made directly from the originals. This is simply because the Cotton Genesis artists did not in most cases use outlining to separate areas, but rather colour or texture changes, and these are obviously prone to small misinterpretations when their function has to be represented by simple lines.

I have been extremely fortunate that in the latest stages of my work I have been permitted to use coloured pencils in the Manuscript Students' Room, which has permitted the preparation of the colour versions to be made on to the outline groundwork with colour-matching directly from the manuscript, and allowed the manuscript itself to be used, in combination with the ink wash clarifications, to check results immediately; this process has great simplicity compared with the earlier phases of this work. I have now around two-thirds of the surviving miniatures in colour transcriptions (accurate I hope, painstaking I know), and find myself rejoicing where many commentators have despaired, since it is my conviction that it is possible to say quite a lot not only about small details in the pictures which greatly clarify their identification, but also about the styles (and there are several) employed by the Cotton Genesis artists.
Obviously, most writers on Byzantine art history have found it hard to say anything very definitive about the Cotton Genesis. Several have attempted to place the manuscript stylistically, and John Beckwith, although working on the assumption that there was insufficient evidence to attempt a stylistic analysis, wrote wistfully about what had been lost.

Originally the codex must have been a luxurious production decorated with two hundred and fifty—some say more than three hundred—miniatures in delicate colours picked out in gold and painted in a good late antique tradition. This or a similar codex must have been held in high repute in the Middle Ages, since it has been proved that the mosaicists at S. Marco in Venice used it as model for their Genesis cycle in the vestibule.

The possibility that the manuscript was the original cycle of Genesis illustrations behind the S. Marco mosaics is one that Kurt Weitzmann has been proposing for many years, and his most recent writings on the Cotton Genesis suggest that the case for this is now conclusive; he has at times also written more confidently than any previous commentator on what he has seen as the style of the Cotton Genesis illustrator.

Whether there is really enough evidence to conclude that the Cotton Genesis and no other must have been the source for the S. Marco mosaics is not my concern here, but my own work has led me to conclude that Weitzmann has been wrong in some attributions of subject-matter (the result of misreading certain details which my further work on the manuscript has now clarified), as well as in his assumption that only one artist (or artist's style) was involved in its production. It has also convinced me that although the Cotton Genesis miniatures are not much like any other surviving Byzantine painting, some of them do exhibit peculiarities which can be specifically located in other works made in the late antique tradition of which John Beckwith writes.

**BASIC STYLE CHARACTERISTICS**

One small-figure style, where figures are often fitted one above another within the picture frame yet are proportionate to each other in size, has been noticed to have features in common with the mosaics of S. Maria Maggiore, Rome, produced soon after AD 430. This we can call style A. A second style, style B, employs larger figures, or small figures grouped along with larger ones, both types exhibiting a variety of head-to-body proportions. Such variety of proportions in one pictorial complex also occurs in the painted tomb of Silistra, Bulgaria, dated between AD 360 and 380, as well as in some early Byzantine ivory pyx carving. Certain 'style B' figures are depicted with the attenuated bodies and haggard faces of the Apostles in the Orthodox Baptistery in Ravenna, decorated with mosaics between AD 449 and 458. Also included within style B are figures proportionate to each other as in style A, yet with marked grotesque elements—enlarged heads, hands, or feet, or distorted facial features. The grotesque faces in style B miniatures are suggestive of fourth- and fifth-century portrait sculpture from Ephesus, such as the colossal head now in the Kunsthistorisches Museum, Vienna (fig. 1b), whose mouth
stylization is paralleled on the curious central figure of Cotton Genesis fol. 94v (fig. 1a). (All Cotton Genesis fragments, except where stated, are illustrated at the original size.)

Many Cotton Genesis miniatures with grotesque details utilize a characteristic interrupted line for drawing. It must be said that this line serves mainly as calligraphic decoration on the finished painting: fibre-optic back-lighting can reveal undersketching made in simpler line. Where this interrupted line occurs, directional effects normally obtainable by a single long line have been achieved by grouping together separate calligraphic flourishes. A ‘line’ may be composed of groups of tiny zigzags, hooks, rectangles or short, nervous strokes or pairs of strokes placed at right angles. Multitudes of such lines may progress round the centres, rather than round the edges, of three-dimensional forms, and particularly down the centre of the human face. Thus a number of startling formulae are used to give expression to faces, sometimes in ways which do not occur, so far as I know, elsewhere. Suggestions of drapery built up from composites of short strokes are often used to soften the rigidity of columns, beds, thrones, or chairs.

The stylistic divergencies between the various Cotton Genesis miniatures need to be thoroughly assessed. It is possible that the two styles represent different fashions in picture-making which existed over a period of time, but equally, it is possible that they were practised simultaneously by artists trained in different schools, working together in
one major workshop for the production of this manuscript. Whatever the case, it seems evident that the artists' methods of working were sufficiently distinct technically to react differently to fire. Although both styles included faces set out in thick paint which resisted charring better than that of the rest of the miniatures of which they are features, the style A compositions often have background areas also thickly painted on, so that complete style A miniatures are at times preserved with only minimal fire damage. This is the case with the so-called 'Bristol' fragments, and other of the fragments most frequently reproduced. These represent the style attributed by Kurt Weitzmann in his earlier commentaries on the book to 'the Cotton Genesis illustrator' or, more rarely, 'illustrators'. Miniatures in style B were not amongst those few Cotton Genesis illustrations selected for engraved reproduction soon after the fire in 1731. Even early on, charring seems to have resulted in a more complete obliteration of their contents to most eyes than did the charring of miniatures in style A. Apart from the painting on some of the style B faces, the paint layer tends to be thin, at times no more than a mere wash or colour stain combined with the erratic drawing described above (rendered in dark lines) which seems to have eaten into the vellum and sometimes survives only as surface dents. However, the chief difficulty people have experienced in reading style B miniatures when confronted with the fire-damaged book lies, I believe, in the unexpectedness of their actual characteristics. Although the grotesque facial depictions and bizarre mixtures of figure proportions can be found to some extent in other types of late classical art, they are certainly not found elsewhere in book illustration, and it is harder to grasp the elements of these compositions than it is to grasp elements of the much more predictable A-style examples, simply because no one expects them to be as they are. At first the viewer doubts the evidence of his eyes. As a further complication, unexpected subject-matter is combined with unexpected use of colour, as I shall subsequently explain. Be this as it may, six years of work on the manuscript have done nothing to lessen my early conviction that two very different illustrative traditions are represented in the Cotton Genesis.

THE COTTON GENESIS AND COLOUR

We can now turn to the main purpose of this article, which is to observe the use of gold and coloured pigments in the hands of the various contributors.

Use of Gold

The style A and style B miniaturists (there seem to be several hands within each style) relate applied gold and sky colour in much the same ways. Workers in both styles frequently painted sky colour across the gilt-banded frames prepared (presumably by another hand) on each page for their work. Both styles emphasize important pictorial elements by touching them with gold, while skies are often streaked with horizontal gold lines over which figures are painted rather thinly, allowing the gold to glimmer from behind. This handling of gold lines can be seen on a much larger scale in the apse mosaic of S. Pudenziana, Rome, dated by Walter Oakeshott to c.AD 400. Even so, Cotton
Genesis miniaturists working in style A do utilize big, solid areas of gold leaf on those miniatures depicting Noah's Ark (fol. 10v, 11, and 12v) in a way not duplicated in any painting in style B.

Basic Use of Colour

My conclusions about use of colour in the Cotton Genesis are based on an analysis I have made of 110 miniatures now rendered in colour, over one-half the total surviving, in a select sampling excluding any fragments too small to allow colour classification. Of this 110, forty-nine are in style A, and sixty-one in style B. Colour handling in miniatures of both styles to some degree overlaps, which is as one would expect where a number of miniaturists contributed to the same book. Presumably each would have been familiar with the work of some of his colleagues, and with the appearance of the book as it grew. Some perhaps would have found occasion to adopt colour solutions favoured by artists of different backgrounds who shared their task. Yet there is no doubt that style A artists favoured some colour solutions, and style B artists others.

Within both styles a wide range of colours was available to the artists. Most popular was a somewhat sour palette, limited to quantities of yellow ochre, brown, grey-green, and blue-grey, touches of sharp turquoise blue, forest green, and wine red, and a strong predominance of pink. This palette is already familiar from the early fifth century *Vergilius Romanus* (Vatican Library, cod. lat. 3867) which, like the Cotton Genesis, lacks secure provenance.

Naturalistic Colour

My sample of 110 miniatures contains only seventeen where colour choices seem ruled by naturalistic considerations, in the sense that assorted colours are used for each figure, object or architectural detail shown, and that these colours answer our expectations for the colouring of such objects. Flesh is flesh-toned, grass is green, sky blue, and so on. Of these seventeen miniatures, twelve are in style A (of which an example is fol. 26v, 'Abraham and the Angels', easily accessible in colour reproduction) and five are in style B. Although this count might suggest a greater preference by style A miniaturists for naturalistic colour, the number of naturalistically coloured miniatures in either style is small compared to the total number considered. We may therefore conclude that naturalistic use of colour was not a paramount consideration for most of the illustrators.

Colour and Crowds

It must be said that in all naturalistically coloured miniatures, the number of actors represented does not exceed five. This is an easy number for the eye to grasp. In certain other, less naturalistic colour handleings in the manuscript, up to about five people are again coloured naturalistically, but these are set against more figures (sometimes approaching thirty), coloured non-naturalistically and functioning as colour masses against which the important actors are placed. Such treatment obviously reduces confusion in crowd scenes.
Little information has survived to us about the colour handling used for the representation of crowds in late Roman and early Byzantine art. Almost no painting survives from that period with figures crowded to every edge of given pictorial spaces, although that sort of composition is familiar from stone reliefs of the same era. Crowds in Roman painting do not 'crowd out' picture spaces; rather, they form textural blocks which are arranged within surrounding, relatively empty, spaces (fig. 2). Yet it seems likely that some painting having the same figure-crowded compositions as much late Roman and early Byzantine relief sculpture did once exist, and this supposition is borne out by the Cotton Genesis (fig. 3), which provides enough examples for us to note the crucial role played by colour distribution in making such painting acceptable to the eye.

The Cotton Genesis miniatures follow basic compositional rules for legibility (as does all art, since we are human and those rules relate to the functioning of the human eye). Certainly the bizarre proportions of style B, unexpected in comparison to the normal proportions of style A, contribute now to the problems of studying the manuscript, unintelligibility easily being taken for illegibility. But our lack of understanding of the way colour was then used to produce legible groupings of material further
contributes to the manuscript's difficulties for us. A word is necessary here about pictorial optics.

The human eye, it has been theorized, is only capable of grasping units within a picture space (or within any other surround acting as confine to visual material presented as a group) if such units are limited to, at the most, five.\(^{22}\) The eye needs to be able to grasp easily five (or fewer) major parts to any pictorial composition in order to interpret such a composition as legible, even though each part may itself be made up of tonally massed material having many parts. When the division of a picture space into basic, countable units of up to five is disrupted, mere texture rather than pictorial composition is what is apprehended. Texture is not legible as a mass. Few indeed can read a whole block of typescript at a glance. Because we know the way to extract legibility from it, we begin at the upper left and read each work to the lower right. Once we learn to extract legibility from the Cotton Genesis, where fire damage has made texture from the original arrangement of countable units, it is possible to ‘read’ it in a similar way, figure by figure and face by face, as six years’ work has convinced me. Knowing where to find the figures

\[\text{Fig. 3. Cotton Genesis type crowd scene, Tamar by the Roadside. Cotton MS. Otho B. vi, fol. 8t}\]
and faces to be read can be expedited by learning to read colour clues indicating what sort of image may be found where.

Cotton Genesis colours often look, to our expectations of how they should look, smeared. Yet, beyond the often patchy fire-darkening, colours are still very bright; it is placement of figures within colour areas, not the colour areas themselves, which is unclear. My research has demonstrated that blocks of colour are arranged according to a small number of formulae, and these blocks can indicate figure placement. Some figures stand out, others are subdued. The reduction of visual material to a limited number of kinds of abstract colour pattern, each with no more components than five, is certainly part of a tradition of the production of intelligible art. The types of colour arrangement chosen were already established in earlier art, although in the Cotton Genesis such formulae of colour arrangement may well have been used in new ways.

Cotton Genesis Colour and Late Roman Painting: (A) Colour Bands

Colour selection for the Cotton Genesis miniatures seems based ultimately on methods of colour selection in late Roman illusionistic art. Although few illustrated manuscripts survive earlier in date than the Cotton Genesis itself, Roman frescoes are preserved in quantity and are informative about Roman use of colour. An important inspiration to some of the Cotton Genesis miniaturists was the technique of atmospheric perspective, where an illusion of depth in picture space is contrived by imitating colour changes from near to far which occur in a real landscape or sea-scape. Objects in the background are veiled by haze, being paler and of lower contrast than objects in the foreground. The most distant motifs in Roman painting are often sketched in on self-coloured ground.

Roman painters using atmospheric perspective favoured an even progression from darker tones in the foreground (sometimes shot with near-white contrasting elements) to lighter tones in the horizon area. Actual representation of the horizon line being avoided, the pale band gradually modulates to a slightly darker hue towards the top of the sky area. A hard-edged division between earth and sky in Roman painting was most usual when foreground objects such as shrubs, architecture, or hills, blocked the horizon, screening the distance. In another variant, a number of horizontal streaks or bands, sometimes hard-edged, sometimes not, suggest shimmer. Such streaks, given gentle chromatic variations, carry on well above and below where a horizon could be, without giving any clear indication of where it actually is. This type of horizon division is largely familiar from mosaics depicting coast and sea, as at Pompeii (fig. 4b) and Palestrina, but hints of it are also to be found in some first-century architectural fresco painting.

The representation of a normal horizon is rare in the Cotton Genesis. There are, of course, many interior scenes. Events in the wilderness usually take place on hard-edged hills close to the observer, or in front of an only slightly more distant high horizon, edged by rocks. In only three miniatures within my colour sampling is an uninterrupted horizon area represented: fragment 1 (one of the group of ‘Bristol’ fragments mounted under glass, separate from the main part of the manuscript, which is repaired, in a nineteenth-century binding, and foliated accordingly) and fol. 38, both in style A, and fol. 38\(^v\) in style B.
In two more, an expanse of horizon area is to be glimpsed through a window or archway (fols. 59\textsuperscript{v} and 136, both style B). In all five instances, a hard-edge division suggests the sky. One light-blue band is shown above where a horizon might be, and a darker blue band below. In fol. 136, the two bands are separated by a gold line. There are two more Cotton Genesis miniatures (fol. 16 in style A and fol. 66 in style B) where the skies are presented as rows of horizontal colour bands in a series of gradated tonalities which seem to replace an exact horizon line, as in the Roman mosaics mentioned above. Folio 16 shows these to the left of a skipping boy (fig. 4a). From top to bottom the colours are pale blue, darker blue, then a gold line, near-white, light grey, and darker slate grey. Folio 66 has, in the same order, slate grey, peach, near-white, pale blue-grey. In both miniatures, colours left out from the sky tonalities but used for figurative material below the sky are ochre and mauve. In addition, fol. 66 uses soft green around the ankles of a row of disputing men, the chief subject-matter of the scene.

That even two miniatures with chromatic sky bands do occur within the Cotton Genesis repertoire is of interest, since the hardening of Roman atmospheric tonalities into the horizontal colour bands of Carolingian and later painting is much discussed, and early examples sought. Yet these two miniatures give but little evidence of the widespread use of Roman atmospheric technique in the Cotton Genesis; it is much more clearly seen in the way colour is applied to groups of people. More specifically, an atmospheric progression technique is used for selecting the colours of nearer and farther figures in representations of crowds.

Blue is an atmospheric colour \textit{par excellence}, and the first of several examples I give of non-naturalistic colour selection in the Cotton Genesis is of a type where blue figures are
huddled together in the background. A typical miniature of this sort will depict some naturalistically coloured actors in the foreground of a crowded scene; these polychrome figures overlap other figures, less important than themselves, who pick up background colour generally; those seen as against the blue sky at the top of the picture are simply coloured blue. Touches of hair colour, flesh tone, paler highlighting, or darker facial tones are used to make these blue people intelligible. There are fifteen such miniatures in my sample, nine in style A and six in style B. Among them is the relatively well-preserved and often reproduced style A miniature, fragment 4\textsuperscript{v}, illustrating events at Lot’s house. Six full figures in the foreground are coloured naturalistically. Four of these stand in the front row of a group of threatening inhabitants of Sodom, and behind them, three naturalistically coloured heads are tucked, slightly higher in the picture space. Eight more faces and tops of heads are yet further behind, penetrating the blue of the upper picture space, and these are largely blue. One face to the front of this group is of a paler blue than the sky. Others have shadowy flesh tones mingled with their blue, making their overall tonalities darker than the sky.

Placing blue figures against a blue background, obliterating the horizon but utilizing atmospheric blue to make those figures recede, is an obvious way of retaining space in a crowded outdoor scene. More notable is the fact that nine additional miniatures, four in style A (fols. 7, 8, 102\textsuperscript{v}, 127) and five in style B (fols. 81\textsuperscript{v}, 86\textsuperscript{v}, 90, 97\textsuperscript{v}, 108\textsuperscript{v}) show this device used for indoor crowd scenes. In fact, were it not for the presence of certain ‘props’, such as trees, camels, hills, and rocks in outdoor scenes, and beds, columns, curtains, and doors in indoor ones, it would not be possible to discriminate between indoor and outdoor settings. Eight further miniatures, three in style A (fols. 6, 106, 129\textsuperscript{v}) and five in style B (fols. 9\textsuperscript{v}, 84, 87, 91\textsuperscript{v}, 98\textsuperscript{v}), which feature this type of recession to blue are enigmatic as to setting, and where the Genesis story gives no clear indication, could be taking place indoors or outdoors.

In view of the foregoing it comes as no surprise that pictures of any sort of outdoor, indoor, or neutral location are likely to turn up in the Cotton Genesis repertoire filled from top to bottom with colour bands of the same hues, arranged in the same order, as are to be found in many Roman painted landscapes which employ the atmospheric perspective technique. Blue is at the top, then peach or ochre or mauve, then yellow or soft green. And around the few naturalistically coloured figures in the foregrounds all these colour bands can be tightly packed with figures who take up colour from the particular band against which they happen to stand. I illustrate here fol. 9\textsuperscript{v} (fig. 5), where most of the people are depicted in the course of falling down, and so fill their colour bands tightly.

The miniature on fol. 9\textsuperscript{v} can only be read with great difficulty. The title given it by Kurt Weitzmann, ‘Noah Ordered to Build the Ark’, relating to the text in Genesis 6: 13, seems belied by its actual contents. It appears to illustrate God’s statement in this same text that the earth was full of violence of man’s making, rather than simply his appearance to Noah in order to make that statement. Weitzmann’s confidence that the S. Marco representation of God emerging from a starry heaven for purposes of discussion with Noah closely follows Cotton Genesis fol. 9\textsuperscript{v}—he writes: ‘Although this whole part of the mosaic is
heavily restored, there seems no reason to doubt that it followed closely the Cotton Genesis, where, unfortunately, the corresponding miniature . . . is too damaged to allow any comparisons'^—in fact seems misplaced.

This miniature’s three colour bands, reading from the top, are blue, mauve, and soft green. The topmost figure in the miniature is a bi-coloured man, blue and mauve, extending across the first two bands and, chameleon-like, picking up colour from both. His wolf-like eyes and nose and his moustache are blue, but his chin and arms are mauve. He seems to be strangling a mauve man, with an unusually large head, who falls upon two more mauve men, smaller than himself, one of whom tries to protect his head with his hands. At the left of the mauve band, largely destroyed by fire, and in front of a pile of faces in yellow and grey, a determined individual with pale-yellow flesh tone, ochre hair, and a pink garment, raises an implement to strike a person stretched on the ground. This last has flesh colouring like that of his attacker, but his robe is ochre and grey. These two men form what is left of the figures in quasi-naturalistic colouring to whom the bands of coloured people would originally have formed a background. Reduction by fire of these foreground people has made the figures once subsidiary to them in turn more difficult to read. With a naturalistically coloured centre of attention, the original viewer could quickly have ascertained the subject-matter of the miniature and the scale of the figures, and as a result more easily have read the monochrome background forms.

Cotton Genesis Colour and Late Roman Painting: (B) Colour Patches

A second type of non-naturalistic colouring used in the Cotton Genesis is also typified by one or more naturalistically coloured characters being placed against a predominantly
abstract arrangement, but in this type the abstract shapes involved are not colour bands, but rather irregularly edged colour patches. My selection of 110 miniatures includes ten such, four in style A (fols. 4v, 5v, 75v, 93v) and four in style B (74v, 83, 118v, 120v).

Surviving Roman frescoes include a number of landscapes, generally pastoral scenes, in which colour patches of irregular shape serve as a compositional device to suggest environmental variety. The effect produced suggests that areas of bedrock, grass, flowers, and sand are harmoniously linked. Such colour-patch usage may be a Hellenistic device; an early example from a house on the Esquiline, now in the Vatican Library, shows

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**Fig. 6.** Colouring by colour patches in Roman painting; wall-painting from Boscotrecase, first quarter of the first century AD. Naples, Museo Nazionale, inv. no. 9414
episodes from the Odyssey and may have been painted by a Greek artist working in Rome round the first century BC. The same use of colour patches enlivens various country landscapes uncovered around Pompeii, dating into the first century AD. Two examples now in the Naples Museum are from the house of Agrippa Postumus at Boscoreale (fig. 6).

The use of colour patches in the Cotton Genesis differs from the Roman prototypes in that figures painted in naturalistic polychrome with strong dark–light contrast are not
always in the foreground, and may even be placed towards the rear of a scene. Conversely, figures merging with their colour patches, confined to the backgrounds of Roman paintings, can be found in the foregrounds of Cotton Genesis miniatures. This reversal of a classical space arrangement is well exemplified by Cotton Genesis miniatures 5\textsuperscript{v}, the Condemnation of Cain (fig. 7). Cain stands at the very top of a picture area illustrating a rocky wilderness, slightly below and to the left of the hand of God. He is more markedly visible than the other figures in the scene because of his near-white face, hands, and undergarment, and the pale-coloured animal(?) which, as examination with fibre-optic lighting demonstrates, he holds in his arms. He carries this seeming animal on a pink-red cloth which is the same colour as, or possibly is part of, his outer robe. The colours used for Cain, including this pink-red which is the strongest colour on the page, are all contained within their own shapes in contrast to all other colours surrounding them. These look smeared, but are not. They are simply colour patches of the sort described above, upon which three adults, two children and two animals are rendered in a sort of grisaille technique. Each figure takes up the varying colours of the patches over which it has been drawn (fig. 7). A gamboling kid at the base of the miniature is joined by a dog or sheep, and these reinforce the affinity with Roman pastoral painting, wherein such beasts, casting short shadows just as here, give a sense of reality to those combinations of colour patches meant to be read as country landscape.

*Cotton Genesis Colour and Late Roman Painting: (C) Architecture and Objects lending Colour to People*

I hope I have shown that the Cotton Genesis artists simplified the compositions of their most heavily populated miniatures by the device of selecting some simple colour arrangement as a basic framework for each miniature, and by colouring all but a few select people in each scene the same colour as those parts of the arrangement against which they stand. We have seen that this colour arrangement may consist of several horizontal colour bands, derived ultimately from the veiling of sky and land by the effects of mist and sun; or of groups of irregular colour patches which imitate the various natural surfaces of the depicted terrain. A third kind of colour patterning which, like the others, often determines the colouring of lesser personalities in the miniatures, derives from man made rather than from natural environmental features, that is, from buildings or their interior features such as columns, curtains, furniture, and doors.

Nineteen miniatures in my sample of 110 depict people taking on colours from architecture or room furnishings. Of these, four are in style A and fifteen are style B. Even allowing that I include eleven more style B pictures in my grouping than style A, the proportion given does suggest that the habit of colouring less important figures together with nearby architectural features was really part of the repertoire of style B artists. A reason for this might simply be that the robust delineations of style B allow for more substantial buildings and interior fittings to be depicted than usually occur in the more delicate style A, where slim columns supporting insubstantial baldachins, for instance, could not readily lend their colours to bystanders. The four style A examples I have
mentioned which do colour people together with indoor features contain more substantial furnishings than is usual for that style. Figures in the miniatures on fol. 101 and 101v take up colour from the relatively substantial columns behind them, whilst bystanders in fol. 6v are coloured pink like the doorway drapery around them, and those in fol. 127v the same colour, from a bed backing (fig. 8). However, in yet rarer cases where style A departs into both wide and solid architectural representation, such as in the representation of the Tower of Babel in a miniature once obviously composed of the two fragments now mounted as fols. 15 and 130, people in front of the structure do not borrow its colour. So there may have been a genuine disinclination on the part of style A artists to use this particular colour arrangement.

Fig. 8. Cotton Genesis crowds adopting colour from furniture, a crowd taking the colour pink from a bed surround. Cotton MS. Otho B. vi, fol. 127v

The style B miniature on fol. 81v typifies that style’s handling of a miniature where, apart from the naturalistically treated central actors, most colour derives from the furniture, doors, and walls, across which figures are sketched transparently. Indeed, the degree of transparency employed in this miniature is greater than usual, with the rare occurrence of one figure showing through another (fig. 9). Identification of this scene is problematical; to me it appears to represent Tamar’s accusation (Genesis 38: 25–6); just as the recto of the leaf (fig. 3) looks to me to represent Tamar veiled by the roadside, contemplating her father-in-law, Judah, who takes her for a prostitute (Genesis 38: 15–17), although for Weitzmann this same miniature on fol. 81v seems to include both ‘Potiphar’s Wife Catches Joseph’s Garment’,31 and ‘Potiphar’s Wife Displays the Garment to the People of Her
House'. The miniature on fol. 81\(^v\) certainly contains two figures coloured naturalistically, a cat-like woman and Tamar(?), held in the grip of a powerful man. Whilst Tamar's polychrome is pale in tone, the non-naturalistic colouring of her captor, who is bright pink with blue hair, is strident, and the same colouring as is given both to Judah's throne and the wall behind (fig. 9). Both throne and wall are so obliterated by onlookers that their shapes are only indicated by the blue and pink colouring of the figures in front. A door in raw sienna framing Tamar's(?) principal accuser also gives its colour to observers of the scene. It would seem that the artist's wish to present only two figures in polychrome resulted in the central, important figure of Judah being made transparent, like the various subsidiary personages.

Cotton Genesis Colour: A Unique Development

If most Cotton Genesis colour handling can be seen to develop out of late Classical use of colour, there seems to be one departure far removed from the colouring of figures with their background tones as described above, and so bizarre that between the fifth and the
Secondary figures in Cotton Genesis compositions given non-naturalistic colour; Joseph receives his brethren. Cotton MS. Otho B. vi, fol. 92

Fig. 10. Secondary figures in Cotton Genesis compositions given non-naturalistic colour; Joseph receives his brethren. Cotton MS. Otho B. vi, fol. 92

fifteenth century (during which it was used by Hieronymus Bosch) there seems nothing comparable. This is the grouping of people in different colours, say, pink, yellow, ochre, and blue, who operate together in some action carried out against a neutral ground. There are thirteen examples of this strange colouration in my colour sampling, two in style A and eleven in style B. Since they are much more typical of style B, I illustrate two examples in that style, both from the story of Joseph. The miniature on fol. 92 (fig. 10) uses whole figures in different colours and that on 97v (fig. 11), only heads or heads and arms. In both cases this colour treatment is reserved for subsidiary characters in the scenes; main actors are in polychrome and there are others sketched lightly on monochrome grounds.

Folio 92 (fig. 10) would appear to depict the enthroned Joseph before whom his brothers hurl themselves to the ground, rather than Weitzmann’s attribution; he calls it ‘The Departure of the Brethren who leave Benjamin behind with Jacob’. Sewing holes down the right side of this page probably indicate the recto was once a verso. The verso of fol. 92 as currently bound in fact depicts an earlier scene, correctly attributed by
Weitzmann, 'The Brethren brought before Joseph', showing them arriving through a city gate with military escort. Joseph in this miniature (fol. 92) is represented in polychrome, in his usual state garments of purple and muted gold. The attendants behind are sketched on a dark-grey and ochre ground, while the brothers, entering from the left of the scene, are diversely orange, grey, ochre, yellow, white, and peach. The ground they fill is pale,
and even with their colour differentiation they form one single mass, helpfully simplifying the composition.

Folio 97v (fig. 11) is mainly filled with heads, and the fact that those largest are at the top of the composition links this odd arrangement with the reliefs depicting Theodosius I, Valentinian II, Arcadius, and Honorius in the imperial box in the Hippodrome, on the well-known marble obelisk base in Istanbul, dated around AD 390. In this miniature, Joseph dines separately from his brothers, to whom he has not yet revealed his identity (Genesis 43: 32–4), although his brother Benjamin is now one of the group.

While the heads and half-figures of Joseph’s brothers on the neutral brown lower part of this scene are again in a variety of colours (purple, pink, brown, and orange with one blue and green two-toned head), as a group they form a darker tonal unit than the predominantly blue area above, where Joseph’s pale profile is directed to the left, surrounded by blue and grey retainers. Joseph’s head is largest in this tonally pale area, and his pink face and yellow-green hair pull visually against the reversed colouring used for his brother Benjamin, whose profile with yellow-green flesh tones and pink hair is in the darker grouping beneath that of Joseph. This colour-matching not only emphasizes the relationship between Joseph and Benjamin, who are turned away from each other, it also artfully locks together light and dark tonal areas of the page (fig. 11).

Cotton Genesis Colour: An Archaic Trend

Twenty-one miniatures in my colour sample of 110 examples (six in style A and fifteen in style B) share an uncomplicated colour arrangement, simpler and in a more archaic tradition than any described above. In these, upon a dark neutral toned background, one or two figures, parts of figures, or small figure groups, stand out as light. The neutral dark ground contains more figures or other pictorial material with colour only slightly differentiated from it, and tonally also dark. In the present condition of the manuscript, only the pale shapes are readily legible. It is tempting to assume that the dark remainder of the picture area is, and always was, empty. Yet on all of these miniatures, a careful eye can find lines and chromatic changes, always dark and now further darkened, which reveal themselves as additional pictorial forms. An example is the style A miniature on fol. 3v, called by Kurt Weitzmann ‘The Temptation of Eve’, and described by him as depicting Eve in solitary association with the Serpent (fig. 12). He enlarges on the iconographical parallels for Eve alone in this scene. In fact, the composition contains not only the serpent but also Adam and the Lord. All but Eve are tonally much subdued, now nearly black, and yet their tonal arrangement most probably preserves the original dark–light structure of the miniature which in its entirety must surely depict the Admonition rather than, or as well as, the Temptation.

This miniature in fact makes use of a colour technique never abandoned after its popularity on later Greek vases. Much Hellenistic painting, from the Amazon sarcophagus of Tarquinia to certain Pompeian wall-paintings, effectively carried on this sort of composition, where a few dominant light elements are set against a background uniformly dark in tone. As a device for simplifying complicated material, it was later found
Fig. 12. One light-coloured figure standing out against a dark, neutrally toned ground: an archaic colour formula. Eve, the serpent, Adam, and the Lord. Cotton MS. Otho B. vi, fol. 3v

useful by Rembrandt. It is worth entertaining the possibility that most Cotton Genesis miniatures with this sort of colouring are no more seriously blackened by the fire than those with the often vividly bright colouring mentioned above, although they may seem so. A problem arises from the refusal of our eyes to search a nearly black ground for meaningful tonal change. In fact, since the manuscript's burning, the elements thought to be legible have consistently been those with naturalistic colouring. It is hoped that this article may redress the situation somewhat, by drawing attention to the important, and generally preceded, non-naturalistic uses of colour in the solution of formal and structural problems.

1 Kurt Weitzmann and Herbert L. Kessler, The Cotton Genesis, British Library, Codex Cotton Otho B. VI (Illustrations in the Manuscripts of the Septuagint, vol. i), Princeton monographs in Art and Archaeology, xlv (Princeton, 1985). This volume, announced for publication in 1985, appeared only in the last days of 1986 and so was not available for consultation when this article was written and was being seen through the press.


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4 Some of these will appear in the Weitzmann-Kessler book mentioned above.


8 An invaluable tool, the fibre-optic light, allowing increased illumination on and behind the manuscript page at close range, was acquired by the British Library only after work for the Weitzmann–Kessler project had been completed.

9 Beckwith, op. cit., p. 37.


12 Beckwith, op. cit., p. 41.


16 Ibid., iii, p. 128.

17 *Vetusta Monumenta Rerum Britannicarum* (London, 1747), vol. i, pls. lxvi, lxviii.


20 Ibid., p. 72, pl. 21.


24 Ibid., p. 177, fig. 181.


26 Weitzmann, *Late Antique and Early Christian Book Illumination*, p. 75, pl. 22.

27 Weitzmann in Demus, op. cit., vol. i, p. 119.

28 Charbonneaux, Martin and Villard, op. cit., pp. 168, 170, fig. 171.

29 Ibid., p. 165, fig. 169.

30 Ibid., p. 174, fig. 178; Bandinelli, op. cit., p. 140, fig. 148.

31 Weitzmann in Demus, op. cit., vol. i, p. 133, no. 86.

32 Ibid., p. 133, no. 87.

33 Ibid., p. 138, no. 104.


37 Charbonneaux, Martin, and Villard, op. cit., p. 107, figs. 102, 103.

38 Ibid., p. 169, fig. 173; p. 171, fig. 175; and p. 188, fig. 196.
