Within the pages of the Black Book of Carmarthen (National Library of Wales Peniarth MS 1) is a body of material which both greatly enriches our corpus of medieval Welsh verse, and has the potential to reveal much about the workings of the scribe who created it.¹ Although the manuscript has been re-dated from the twelfth century to the mid-thirteenth, it remains our earliest collection of medieval Welsh poetry and it has rightly attracted considerable scholarly attention over the years.² Many of the poems it contains are unique copies, and even for those which are attested elsewhere, such as within The Hendregadredd Manuscript (National Library of Wales MS 6680B) or the Red Book of Hergest (Oxford, Jesus College MS 111), the Black Book provides an invaluable witness; much may be gained in a detailed analysis of its readings and arrangement of stanzas both internally and in comparison with other versions.³ A memorandum, now lost from among the papers of Sir John Prise, noted that it came originally from the Priory at Carmarthen.⁴ Though a circumstantial detail, a southern origin for the book is supported by orthographical evidence, making this the only thirteenth-century Welsh manuscript to survive from South Wales.⁵

As the dating of the manuscript has been re-assessed, so too has the number of hands found within it. Described as a 'palaeographical freak' by Denholm-Young, the script in the Black Book

J. Gwenogvryn Evans, *Report on Manuscripts in the Welsh Language* I, pt. II (London, 1899), 297–99. This article was first presented jointly with Prof. Paul Russell as a lecture at the National Library of Wales on 1 April 2015. I am very much indebted to the National Library of Wales for their support of this work, the provision of a variety of high-resolution images of the Black Book of Carmarthen, and for allowing me to study the manuscript in person. In particular, thanks are due to Dr Maredudd ap Huw, manuscripts librarian at the NLW, and to Scott Waby, head of the digitisation unit, who arranged for new imaging of the manuscript and who have both graciously lent me their time and expertise. Many thanks are also due to the Lazarus Project (www.lazarusprojectimaging.com), especially to Dr Gregory Heyworth and Brian Cook, who made the trip to the National Library of Wales from the US and spent three days with me taking multi-spectral images of the Black Book's pages which they continue to be processing. Likewise, I am grateful to Dr Bill Endres of the University of Kentucky, who took images of the manuscript using RTI. Finally, thanks are due to Prof. Paul Russell for reading this article in its various draft forms, and for his feedback. Any errors are, of course, my own.

D. Huws, Medieval Welsh Manuscripts (Cardiff, 2000), 58 and 70. For earlier dating of the manuscript see W. F. Skene, ed., The Four Ancient Books of Wales I (Edinburgh, 1868), 3; J. Gwenogvryn Evans, Facsimile of the Black Book of Carmarthen (Oxford, 1888), xii–xvi; J. Morris Jones, Y Cymmrodor 28 (1918), 6; N. Denholm-Young, Handwriting in England and Wales (Cardiff, 1954), 42–3; E. D. Jones, 'Y Llawysgrif' in Llyfr Du Caerfyrddin, ed. A. O. H. Jarman (Caerdydd, 1982), xiii–xxiv; A. O. H. Jarman, 'Llyfr Du Caerfyrddin: the Black Book of Carmarthen', Proceedings of the British Academy 71 (1985), 333–56; M. Williams, 'Studies in the Black Book of Carmarthen' (unpubl. PhD thesis, University of Cambridge, 2016).

Those Black Book poems attested in other medieval manuscripts are: *Trioedd y Meirch* (not arranged as in the Black Book), *Moli Duw yn Nechrau a Diwedd*, *Cyntefin Ceinaf Amser*, *Mawl i Dduw*, *Addwyn Gaer*, *Afallennau Myrddin*, *Oianau Myrddin*, *Englynion y Beddau* (various stanzas), *Gereint fil' Erbin*, *Aswynaf Nawdd Duw*, *Cysul Addaon*, *Marwysgafn Cynddelw Brydydd Mawr*, *Englynion i Deulu Madog ap Maredudd*, *Marunad Madauc fil' Maredut*. The titles provided are those found in Jarman's edition of the Black Book, *Llyfr Du Caerfyrddin* (Caerdydd, 1982).

⁴ A. O. H. Jarman, *Llyfr Du Caerfyrddin* (Caerdydd, 1982), lxviii; Daniel Huws, *Medieval Welsh Manuscripts* (Cardiff, 2000), 72.

See P. Russell, 'Scribal (In)consistency in Thirteenth-Century South-Wales: the Orthography of the Black Book of Carmarthen', *Studia Celtica* 42 (2009), 135–74.

is extremely variable in terms of size and spacing.⁶ It was this variation that led to the belief that the book was the work of multiple scribes, but Daniel Huws has since shown it to be the work of a single scribe.⁷ Its opening pages, copied in a large textura on alternating ruled lines, have been likened to 'a glossed book of the Bible, or a canon of the mass in a missal'.⁸ Their comparatively small size, however, renders such spacing inappropriate; only about seventeen characters can be fitted into a line. In later pages, the scribe crams thirty eight characters into the same space. The inconsistent use of space throughout the manuscript, and the copying of it in phases of varying lengths, has led Huws to suggest that it was assembled over a long period of time by a scribe who was collecting texts which particularly appealed to him, much like a medieval Welsh commonplace book.⁹

While the sub-title of this article, 'Minding the Gaps', in the first instance invokes the spaces (or in some cases, non-spaces) between the texts, it is also intended to draw attention to some of the lesser-studied aspects of this book, and to dispel the notion that work on the Black Book of Carmarthen has been completed – that there is nothing left to be discovered or learned about it. It is certainly true that good individual editions exist of many of its poems and, with A. O. H. Jarman's 1982 edition, we have a reliable text; ¹⁰ even so it is far from the case that the resources of the Black Book are exhausted. To illustrate this, two points are of particular importance: firstly, the discovery that the original collection was the work of a single scribe is significant, as it enables us to analyse his working habits throughout the book in order better to understand how the compilation came into existence. Secondly, studies of the additions of later scribes to the manuscript have not been previously undertaken, though they are instructive for the history of the manuscript and the nature of its compilation. Relevant to and important for both of these points, as will emerge in what follows, is the application of modern technologies.

There are two lesser-studied aspects of the Black Book which will be addressed here: first, the scribe's use of colour and images in his work, and second the additions of later scribes – some of which have been erased.¹¹ While it is not certain that the Black Book scribe was also the

⁶ N. Denholm-Young, *Handwriting in England and Wales* (Cardiff, 1954), 42.

⁷ Skene, for example, believed there to have been four hands: William F. Skene, ed., *The Four Ancient Books of Wales* II (Edinburgh 1868), 316. Huws, *Medieval Welsh Manuscripts*, 70. The single scribe refers only to the primary architect of the manuscript, and excludes the additions by later scribes, for which see below, 369–75.

⁸ Huws, Medieval Welsh Manuscripts, 70.

⁹ Huws, *Medieval Welsh Manuscripts*, 70–1.

Examples of useful editions include those of Mawl Hywel ap Goronwy and the poem to Cuhelyn Fardd by the late Geraint Gruffydd: R. G. Gruffydd, 'Mawl Hywel ap Goronwy', *Gwaith Meilyr Brydydd a'i Ddisgynyddion*, Cyfres Beirdd y Tywysogion I, ed. J. E. C. Williams *et al.* (Cardiff, 1994), 3–21; R. G. Gruffydd, 'A Poem in Praise of Cuhelyn Fardd from the Black Book of Carmarthen', *Studia Celtica* 10/11 (1975–6), 198–209. Even within Jarman's edition, some of the texts have not been fully edited, see no. 2, *Breuddwyd a Welwn Neithiwr*.

For a general discussion of illuminated manuscripts, including recent work being done on them, see *Colour: The*

manuscript's rubricator and decorator, the seemingly personal nature of the book, along with the fact that the images often appear to have been drawn contemporaneously with the copying of the text, may allow us to assume that he was.¹² The study of these two facets of the manuscript, then, may be useful for gaining insight into its construction and history.

Decoration in the Black Book of Carmarthen

Colour and Style

The style of decoration varies throughout the book and within individual guires; in this way it is similar to any of the other inconsistencies of the manuscript, such as script size or number of lines per page. The use of colour, however, is fairly consistent: initials large and small are rubricated, sometimes with multiple colours; capitals at the start of stanzas or verse lines are often filled; ends of short lines are infilled (Figures 1 and 2). In one instance there is even a rubric for speakers (Figure 3). With the exception of the latter, which I think is unique among the early Welsh manuscripts, this type of employment of colour is not uncommon in Medieval Welsh manuscripts. It is the extent of it found in the Black Book, however, that is quite striking, especially in light of this being the work of an individual scribe; such effort and expense might not have been expected for a one-man production. The most commonly used colour is red, followed by chrome and green, with two rare instances of blue occurring on either side of the same folio (Figure 4). 13 The appearance of blue is noteworthy for several reasons, perhaps the foremost of which is that it demonstrates the impact that decoration can have on our understanding of manuscripts: the use of blue – or rather the general lack thereof – was the reason that the first attempts to date the Black Book on palaeographical grounds failed. Though both Thomas Duffy Hardy and Sir Frederick Madden both initially concluded that the manuscript dated to the thirteenth century, they altered

Art & Science of Illuminated Manuscripts, ed. S. Panayotova et al. (London, 2016).

That the decoration was done in phases, much like the copying of the book, also suggests that it was the work of the scribe. It is not the case that the book was completed and then passed on to a rubricator. Moreover, one image, a manicule on fol. 29v, was drawn in the same ink as was used to copy its accompanying text, text which was copied by the Black Book scribe. There is also an instance on fol. 45v, l. 12, of an error which was erased and then overwritten with the vine line filler common to the book, coloured with the same green used to decorate capitals on the page, and it seems most reasonable to assume that that would have been the work of the scribe; had a rubricator been responsible, we can imagine that he also would have filled in another inter-textual erasure on the same page, l.

7. The markers left before some initials indicating what letter was to be rubricated, as seen for example on fols. 36r and 41r, would, according to this theory, have been reminders left by the scribe to himself. That he needed them is evidenced by the rubrication error on fol. 32r, where what should have been a major initial *E* was rubricated as a *B*, with the omitted *E* added as a capital to the left margin; for more on this, see Williams, 'Review of *Englynion y Beddau*, ed. and trans J. K. Bollard and photography A. Griffiths', *Speculum* 91 (2016), 180–1.

On the use of blue in Welsh manuscripts, see Huws, *Medieval Welsh Manuscripts*, 49. The Black Book is not noted by Huws as containing blue, and it is possible that he interpreted the colour as a form of green. It differs from the shades of blue found, for example, in the Book of Aneirin and the Book of Taliesin, which are darker.

their independent judgements to the late twelfth century on the basis of the predominance of green, which in England had gone out of fashion in favour of blue by the thirteenth century; 14 they did not realize that Wales was up to a century behind in catching up on that trend. The appearance of blue in the Black Book, then, might have suggested that not only did the scribe have his finger on the pulse of the latest in manuscript production, but also that he had the means necessary to procure blue, which was more costly to make than green. The use of blue in conjunction with green on fol. 31v, however, indicates that the scribe might not have viewed the former colour as a replacement for the latter, and that by extension he did not consider green to be outdated. Moreover, with blue used to decorate only two initials, probably at roughly the same time, it is unlikely that the scribe had access to any great supply of it.¹⁵ While such a limited occurrence of blue may not necessarily be used as evidence of wealth or stylishness behind the production of the Black Book, it is illustrative of the scribe's esteem for his book, seen also in his use of chrome. Though the chrome or yellow colour has faded with time, in some places rather significantly, it was used fairly extensively, especially to accent capitals. Because of the prevalence of this colour in the Black Book it is worthwhile to re-colourise a page to get a sense of what it might have looked like when the decoration was fresh (Figures 5–8). The result is that the colour brings much more dimension to the page, making the decorated features emerge from it. The recolourisation also emphasizes the functionality of colour: on fol. 12r (Figure 6) the start of a new awdl is highlighted, and on fol. 35r (Figure 8) the chrome clearly delineates the start of verse lines. Though not an intended function of the scribe's use of colour, the difference between his work and that of a later thirteenth-century scribe who added to fol. 35r is also made much more obvious by the lack of colour in the latter (Figure 8). As chrome appears on approximately forty-five pages out of one hundred and eight, it is fair to suggest that had this colour retained its vibrancy this would be an even more brilliant book.¹⁶

The abundance of colour in the Black Book – both in terms of variety and extent – arguably bolsters the suggestion made by Daniel Huws that this manuscript was a labour of love.¹⁷ As

A note on Hardy and Madden's impressions of the Black Book, written by William Watkin Edward Wynne and dated to 4 March 1861, spans the recto and verso of fol. iv; it was at Wynne's behest that these palaeographers had examined the manuscript. See also Jarman, *Llyfr Du Caerfyrddin*, xiii–xiv and Denholm-Young, *Handwriting in England and Wales*, 43. On the extended use of green in Wales, see Huws, *Medieval Welsh Manuscripts*, 49, 71, n.

Whether it was a lack of ingredients or a lack of the ability on the scribe's part to make blue himself is uncertain, though the potential implications about his means, skills and working environment are interesting to entertain. On the composition of pigments for manuscript illumination, see P. Ricciardi and K. Rose Beers, 'The Illuminators' Palette' in *Colour: The Art & Science of Illuminated Manuscripts*, ed. S. Panayotova et al. (London, 2016), 26–57.

¹⁶ Chrome appears on fols.: 5r, 6v, 9v, 10v, 11r, 12r, 12v, 14v, 17v, 18v, 22v, 24v, 25v, 26r, 31r, 31v, 32r, 32v, 33r, 33v, 34r, 34v, 35r, 35v, 36r, 36v, 37r, 38v, 39r, 39v, 40r, 41r, 41v, 42r, 42v, 43r, 43v, 44r, 44v, 45r, 45v, 46r, 46v, 47r, 49r, 52r.

¹⁷ 'All in all, without our even beginning to read the text, the Black Book gives an impression of being a slowly built-up work of love', Huws, *Medieval Welsh Manuscripts*, 71.

alluded to above, the book is relatively small, and it is constructed of thick vellum containing natural holes; 18 it was not designed to be a presentation manuscript. While some of the variety of the book may be attributed to emulation of the scribe's assorted exemplars, whim and eccentricity may also have played a role. The decoration of initials, for example, can be separated roughly into four different groups: monochrome initials, sometimes decorated with a flourished descender; polychrome initials decorated with flourishes or foliage and knots in a contrasting colour; polychrome, foliated initials with initial ground; monochrome initials foliated in penwork.¹⁹ This variety is, to my knowledge, unparalleled in other medieval Welsh manuscripts. Indeed. ornamentation of the type seen in some of the initials is rare in and of itself, and it is perhaps noteworthy that one of the only – if not the only – other medieval Welsh manuscript to have initials in a similar style and on a same (or higher) level as one of the styles exemplified by the Black Book is Peniarth MS 28 – another mid-thirteenth-centuy book from south-west Wales.²⁰ In that manuscript, the foliage-like fillers of its two initials, B and C, is akin to that of an initial D, K and two B's found in the Black Book (Figures 9–12).²¹ Though the execution may not be as adept in the Black Book as it is in Peniarth MS 28 (a presentation manuscript), it is clear that the scribe put care and effort into his work: he can be seen practising his art in the bottom margin of fol. 43r, where the trial drawing of an initial has been erased but is still partially visible (Figure 13).²² By enhancing the detail of the erased image and rotating it, it is possible to see that the scribe appears to have had the page upside-down and was practising drawing the inner decoration that would be used in two initials on the recto and verso of the next page. If this is indeed what transpired, it is probable that the erasure of this drawing would have been the work of the Black Book scribe himself.

These holes are predominantly elliptical in shape, and they may be the result of knife slits accidentally made when the skins were flayed or holes made by insects on the animals' skins. When stretched and dried, the slits or holes would have opened to form the present elliptical shape; on holes in vellum manuscripts, see K. Ryan, 'Holes and Flaws in Medieval Irish Manuscripts', *Peritia* 6–7 (1987–1988), 243–264. The pages of fols. 34–37 in Quire 6 are particularly riddled with such holes, and they may provide a glimpse into the manufacturing of the bifolia for that quire. Half of one large hole is present in the outer edges of both fols. 34 and 35, and it is possible to align these halves to see that the bifolia of fols. 34 (37) and 35 (36) once formed a single sheet. This sheet would have had a large hole in the centre, and to make the best use of the available vellum, the bifolia were formed by slicing down the middle of that hole. Two small holes which are not elliptical are found in the outer margin of fol. 6; these, however, were likely created after the manuscript was copied, perhaps as a result of the same damage which caused the roughly-triangular shaped tear or cut from the outer edge of fol. 5, or else they may have been formed subsequently as a result of the exposure caused by that damage. Text was lost as a result of the tear on fol. 5, indicating that it was not present when the scribe was copying his text; if it had been, he would have copied around it, e.g. on fol. 36. Other holes in the manuscript which post-date its construction were caused by corrosive green pigments, e.g. on fols. 28–9.

¹⁹ There is only one example each from the latter two categories, found on fols. 5r and 9v, respectively.

In a discussion of initials decorated with penwork, Huws notes that only 10 percent of Welsh books dating between 1250–1400 contain examples, Huws, *Medieval Welsh Manuscripts*, 49. Though the style of penwork he discusses, as exemplified by The Hendregadredd Manuscript, may be different from those styles found in the Black Book, the point that this type of decoration is rare is applicable. I have not surveyed all medieval Welsh manuscripts, and so cannot be certain this style is found only in these two books.

Peniarth MS 28, fols. 1r and 11v, and the Black Book, fols. 5r, 9v, 44r and 44v.

For the type of procedure used to enhance the inset image of the drawing see, 373, n. 69.

A good example of the variety of style found in the Black Book is seen between Ouires 4 (fols. 15–20) and 5 (fols. 21–30) (Figures 14–15). A single poem spans the opening between the quires, and so we might have expected them to have been made around the same time, if not together. 23 Nevertheless these guires are very different. The decoration of Quire 5 is closer to that of some of the more elaborate subsequent quires than it is to any of the quires which precede it. The change in decoration is abrupt to the point of being jarring, and given the placement of the shift at the start of a quire, together with a simultaneous change in script, it is possible to argue that Quire 5 was made at a later date as a replacement for a different quire that had been originally attached to Quire 4, but which was damaged. One significant implication of this would be that either the damaged quire was still legible enough that it could be recopied, or that the scribe still had access to the original exemplar from which it had been copied. Given that the quire would have been damaged to such an extent that it required replacement, the latter option seems the more likely. It is also interesting to note that fols. 21r-23r, containing the end of Mawl i Dduw and the entirety of Iesu a Mair a'r Cynhaeaf Gwyrthiol, were copied in a single phase, separate not only from the end of Quire 4 but also from the rest of Quire 5. The script of these folios is smaller and more compact than that of the end of Quire 4, but if it had been equivalent to that script, these texts would have filled approximately eight folios, or nearly a complete quire; this quire could have been the predecessor of our present Quire 5. When that quire was damaged, the scribe replaced it with a larger one (ten folios), which would explain the gap after the end of *Iesu a Mair a'r Cynhaeaf Gwyrthiol* and the break from religious to prophetic poetry.²⁴ I will not dwell on any further implications, but rather reiterate the potential value of addressing the use of colour and style.

Images

While some degree of colour appearing in Medieval Welsh manuscripts may be fairly common, the use of image is much more rare.²⁵ Where images were included, they seem to have been added to

The poem was titled *Mawl i Dduw* by Jarman, and is number 11 in his edition. It has been more recently edited by Marged Haycock; M. Haycock, *Blodeugerdd Barddas o Ganu Crefyddol Cynnar* (Llandybïe, 1994), 234–7.

²⁴ Iesu a Mair a'r Cynhaeaf Gwyrthiol has been edited by M. Haycock, Blodeugerdd Barddas o Ganu Crefyddol Cynnar (Llandybïe, 1994), 121–35. The gap was later infilled by the scribe with fragments of two poems, Addwyn Gaer and Dinas Maon.

On the rarity of image and decoration in Medieval Welsh manuscripts: 'If the total number of surviving vernacular Welsh manuscripts from the Index period [c. 1380 – c. 1509] may be small compared with extant English manuscripts, at the same time illustration and even decoration is less common and more modest in Welsh manuscripts...', C. Lloyd-Morgan, *Welsh Manuscripts & English Manuscripts in Wales*, in An Index of Images in English & Welsh Manuscripts: From the Time of Chaucer to Henry VIII c. 1380 ~ c. 1509, vol. 6 (London, 2011), 14; 'Even within the general context of Welsh medieval manuscripts Peniarth MS 28 is a rarity. Very few of them have any illustrations at all as part of their decoration; fewer still have illustrations which show any great degree of originality. The Welsh tradition was poor in this respect.', D. Huws, *Peniarth 28: Darluniau o Lyfr Cyfraith Hywel Dda: Illustrations from a Welsh Lawbook* (Aberystwyth, 2008), 7. There are eight images in the Black Book, not including those which were erased; for discussion see below.

manuscripts of status, such as those for patrons or presentation. One notable example from the 15th century is NLW MS 3026C (olim Mostyn MS 88), a manuscript containing medical and astrological texts that was probably created for a patron, where the images serve a definitive, educational function.²⁶ A second example from the 15th century is Peniarth MS 23, a copy of the Welsh translation of Geoffrey of Monmouth's Historia Regum Brittaniae.²⁷ This manuscript contains images of various kings who appear in that text, and was probably commissioned for a lay patron.²⁸ A much closer contemporary of the Black Book, already mentioned, is Peniarth MS 28, a Latin copy of the Welsh Laws of Hywel Dda that probably also dates from the mid-thirteenth century.²⁹ Like Peniarth MS 23, the images within this manuscript depict figures and items discussed in the text, placed near to the relevant passages. It is likely that this manuscript was made to be presented to someone of status, and that it was designed to fit into a thirteenth-century practice of illustrating lawbooks not uncommon in England and on the Continent.³⁰ Two other thirteenth-century Latin law manuscripts also contain images, though they differ in nature from those of Peniarth MS 28. These manuscripts are British Library, Cotton Caligula A.iii and Bodleian Library, Rawlinson C 821 and they, together with a fourteenth-century copy of the laws in Welsh (NLW MS 20143A), are illustrated with drawings which are generally religious in nature and do not bear an overt relationship to the text;31 this shared feature has led Daniel Huws to wonder if a tradition of associating religious drawings with legal text lies behind these manuscripts.³²

The Black Book does not fit into a tradition that could explain the presence of its images (note that none of the other early books of Welsh verse are illustrated), nor are they necessary for explicating the text or united by religious significance. Rather, as with the abundance of colour in the manuscript, they seem to have been drawn largely to add style and interest to the book. With one exception – a fish-like creature discussed below – they are both marginal and functional, acting as apparatuses of the text. They are also, however, more decorative than they would strictly need to be to perform their given roles. Moreover, it may be argued that some of the images bear a connection to the content of their respective texts, and I will return to this question below.

Approximately half of the Black Book scribe's images – and all of those for which the book is

Accessible online at: www.llgc.org.uk/discover/digital-gallery/manuscripts/the-middle-ages/a-gutun-owain-manuscript/

Accessible online at: www.llgc.org.uk/discover/digital-gallery/manuscripts/the-middle-ages/history-of-the-kings/

Unfortunately a colophon at the end of the manuscript which might have contained information on the manuscript's origins has been rendered illegible by gall stains. Here is an example of where modern imaging technologies, such as those mentioned below, may prove useful.

²⁹ Accessible online at: www.llgc.org.uk/discover/digital-gallery/manuscripts/the-middle-ages/laws-of-hywel-dda/

Huws, Peniarth 28, 7.

Huws, *Medieval Welsh Manuscripts*, 50. NLW MS 20143A is accessible online at: www.llgc.org.uk/discover/digital-gallery/manuscripts/the-middle-ages/a-welsh-text-of-the-laws-of-hywel-dda/ Huws, *Medieval Welsh Manuscripts*, 50.

most likely to be known – are used to decorated run-ons, a word or words dropped below a line to prevent its splitting (Figure 16).³³ Though these images are found in the bottom margins and closely resemble catchwords or quire signatures, symbols that indicate the ends of quires and assist in the organisation of books, they do not fall at the ends of quires.³⁴ It is probable that the scribe was familiar with those markers, but other examples of decorated run-ons in Welsh manuscripts suggest that he need not have been emulating them.³⁵ Elsewhere, however, in his use of manicules, the scribe does demonstrate adaptation or misunderstanding of a textual apparatus. There are two manicules in the manuscript, and though they serve different functions, the form that they share was clearly designed for one – the catching of run-ons (Figures 17–18). In both instances the hand is open, with the palm flat and thumb raised as if to hold something; in the case of the second example, found on fol. 52r, it does, holding or catching the run-on at the end of the page. The first example, however, found on fol. 29v, acts as a nota bene or index sign, here signalling a line of verse that should be added to the main text.³⁶ Drawn in pen, it is simpler than the second example, which wears a cuff and has been decorated in red and chrome, and it appears somewhat less practised, with an overly-large thumb and cramped fingers. The implications might be that this was the earlier attempt, inexpertly executed and improperly employed.³⁷ The functionality of their execution, coupled with their inherently nondescript nature as limbs, suggests that these manicules bear no deeper relationship to their texts than acting as apparatuses to them.

There are five examples of images in the Black Book, however, which demonstrate varying degrees of relevance to the contents of their respective texts. The first is found on fol. 2r with the first poem in the manuscript, *Ymddiddan Myrddin a Thaliesin*, and similarly to the *nota bene* manicule it is used to signal something in the text, in this case the transposition of a phrase (Figure 19).³⁸ While its purpose is straightforward, what this image was intended to depict is entirely less

On run-ons, see C. Lloyd-Morgan, *Welsh Manuscripts & English Manuscripts in Wales*, in An Index of Images in English & Welsh Manuscripts: From the Time of Chaucer to Henry VIII c. 1380 ~ c. 1509, vol. 6 (London, 2011), 15

Examples of these markers can be found in the early fourteenth century Cambridge, Trinity College MS O.7.1 (accessible online at: trin-sites-pub.trin.cam.ac.uk/james/viewpage.php?index=864) and the Red Book of Hergest (accessible online at: image.ox.ac.uk/show?collection=jesus&manuscript=ms111).

Decorated run-ons appear, for example, in the thirteenth-century lawbook British Library, Cotton Caligula A.iii, the mid-fourteenth century NLW MS 20143A, and in the Red Book of Hergest.

On *notate bene* in Welsh manuscripts, see C. Lloyd-Morgan, *Welsh Manuscripts & English Manuscripts in Wales*, in An Index of Images in English & Welsh Manuscripts: From the Time of Chaucer to Henry VIII c. 1380 ~ c. 1509, vol. 6 (London, 2011), 32.

Faint lines to the right of the fingers of the manicule on fol. 52r appear to be the remains of fingers; the scribe may have practised here as well, or he may have misjudged the placement of the manicule in the first instance. Another possibility is that this is the remains of a later scribe's copying of the manicule, though the fact that the fingers are nearly level with those of the existing manicule, and that there is not room for the arm to have been drawn if this was a copy, may give pause.

The Dialogue between Myrddin and Thaliesin'; this title does not appear in the manuscript. The poem is number 1 in Jarman's edition, and has also been edited independently by him in A. O. H. Jarman, *Ymddiddan Myrddin a*

clear. At its core, the drawing seems to be of some type of two-pronged rod or stick, and it is not entirely dissimilar to the maces and trees depicted in Peniarth MS 28.³⁹ Those items, however, have branches extending from a central trunk or rod, whereas here the undulating lines surrounding the stick may be emanating from it, but they are not connected to it; they do not appear to denote branches. That the lines appear abstract may make this image somewhat closer to the types of decorative filler found in some initials, particularly those on fol. 5r of the Black Book and fol. 11v of Peniarth MS 28 (Figures 10 and 12). Even these, however, present an impression of foliage not given by the stick.⁴⁰ Whether the wavy lines around the stick were intended to denote motion or something emanating from it is up for debate, but it is tempting (at least for me) to imagine that this might have been intended as some sort of magic wand, humorously correcting the error that it was designed to signal. It is probably only coincidence that the 'wand' is centred directly below the rubric Mirtin, as Geoffrey made no mention of his Merlin possessing such a device and magic is not a feature of the Welsh Myrddin. In the main text it is possible to see a set of matching parallel lines and dots which mark more precisely that the final two words of the last line should be moved up into the line above, but this is made much more immediately obvious by the presence of the mysterious stick.

The second example occurs with the poem *Breuddwyd a Welwn Neithiwr*, and it is perhaps the one least likely to bear a connection to the content of its text (Figure 16). ⁴¹ The drawing is of a beast, possibly a lion. The sharp curved claws, small ears, large eyes and flat snout suggest a big cat, and lions were known of in medieval Wales. No lions appear in *Breuddwyd a Welwn Neithiwr*, however, so any relationship between the image and the text here would be indirect. Nevertheless, there are some suggestions which might be made. Though *Breuddwyd a Welwn Neithiwr* is a more complex composition than it first appears, on the surface it may be understood to be about a dream, while within another level it is a didactic work providing instruction about how to lead a good life. ⁴² Both of these features may be recalled by the lion, with the belief – known at least in England by the 13th century – that these animals slept with their eyes open relating to the dream theme, while their allegorical significance representing aspects of Christ may be relevant to the didactic level.

The third image is more straightforward, and may represent the Body in the poem which it

Thaliesin (Cardiff, 1951).

See fols. 3r, 5v and 22r. For a discussion of the trees in Peniarth MS 28, see W. Linnard, 'Mân-ddarlun yn llsgr. Peniarth 28', *National Library of Wales Journal* 23 (1984), 422–4 (accessible online at: welshjournals.llgc.org.uk/browse/viewpage/llgc-id:1277425/llgc-id:1287259/llgc-id:1287363/get650).

Indeed, that the filler of the Peniarth MS 28 initial may have been intended to invoke the image of a tree is perhaps suggested by its opening of a section on the law of land.

⁴¹ 'I had a dream last night'; this title does not appear in the manuscript. The poem is number 2 in Jarman's edition.

For a more in depth discussion of this poem, see M. Williams, 'Studies in the Black Book of Carmarthen' (unpubl. PhD thesis, University of Cambridge, 2016), 81–98.

accompanies, the *Dadl y Corff ac Enaid* (Figure 20).⁴³ This drawing of a man's head presents an unhappy portrait: the man's down-turned mouth and droopy eyelids give the impression of a character suitably morose for one being threatened with hell. *Guir y guae uinhev*, the Body says in 1. 93, 'Truly the woe is mine'.

Our fourth image is another beast, arguably a canine (Figure 21). More specifically, the barrel chest, thin torso, long neck and spindly legs of this animal are reminiscent of a greyhound, as are his pointed but somewhat laid-back ears. Those dogs were known in medieval Wales, and there is even an illustration of one, more realistic than the present image, in Peniarth MS 28.⁴⁴ This dog is found beside the poem *Ymddiddan Gwyddneu Garanhir a Gwyn ap Nudd*, and it may be that it was intended as an illustration of the dog Dormach or Dormarch described there.⁴⁵ This possibility has in fact been pointed out before, by Gwenogvryn Evans in his diplomatic edition of the Black Book.⁴⁶ The poem refers to Dormach's *[c]ruidir ar wibir winit*, and perhaps this sheds some light on the stylized triple tail or fin that replaces the dog's backside if it is to be imagined propelling him through the sky.⁴⁷ In any event, here may be one of the strongest cases for a relationship between image and text in the manuscript.

The fifth image bearing a relationship to the content of the text with which it is found is the most elusive, not the least because it has been partially erased (Figure 22). This image is most visible under UV light (Figure 23); traces of it can be seen with natural light, but they are more or less unremarkable unless the observer is already aware of them. Although somewhat cartoonish, I believe that the drawing is of a fish (Figure 24). It is different from the other images not only in that someone attempted to expunge it from the page, but also in that it is found in the middle of the page rather than in a margin. Moreover, it is the only image that does not appear to be to some extent functional. Taking these points together with the fact that someone attempted to erase it may raise suspicions about its being the work of the Black Book scribe, but the perpetrator of this

⁴³ 'The Contention between the Body and the Spirit'; this title does not appear in the manuscript. The poem is number 5 in Jarman's edition, and has been edited by M. Haycock, *Blodeugerdd Barddas o Ganu Crefyddol Cynnar* (Llandybïe, 1994), 203–33.

National Library of Wales Peniarth MS 28, fol. 21r: delwedd.llgc.org.uk/delweddau/lhw/lhw00052.jpg. See D. Huws, *Peniarth 28: Darluniau o Lyfr Cyfraith Hywel Dda: Illustrations from a Welsh Lawbook* (Aberystwyth, 2008), 8.

⁴⁵ 'The Conversation between Gwyddneu Garanhir and Gwyn ap Nudd'; this title does not appear in the manuscript. The poem is number 34 in Jarman's edition, and it has been edited by B. Roberts, 'Rhai o Gerddi Ymddiddan Llyfr Du Caerfyrddin' in *Astudiaethau ar yr Hengerdd: Studies in Old Welsh Poetry*, eds. R. Bromwich and R. Brinley Jones (Caerdydd, 1978), 311–18 and J. Rowland, *Early Welsh Saga Poetry: A Study and Edition of the Englynion* (Cambridge, 1990), 461–3, 639–40

⁴⁶ J. Gwenogyryn Evans, *The Black Book of Carmarthen* (Pwllheli, 1906), xiv.

⁴⁷ 'wandering on the white cloud', 1. 42. On Dormach, see, B. Roberts, 'Rhai o Gerddi Ymddiddan Llyfr Du Caerfyrddin' in *Astudiaethau ar yr Hengerdd: Studies in Old Welsh Poetry*, eds. R. Bromwich and R. Brinley Jones (Caerdydd, 1978), 312–13.

erasure committed other similar crimes throughout the manuscript and he was not always right about what was original and what was not.⁴⁸ He is not, therefore, to be trusted as an authority on our fish.

In terms of style, the fish is quite similar to the other beasts in the manuscript. He has bulging round eyes, similar to the dog's, and a tail that ends with a three round curves almost like a clover. Similar foliage-like curves are seen at the end of the dog's tail or fin, and also in some of the decorated initials.⁴⁹ A smear of green suggests that the fish might once have been coloured, but as with the other images it was drawn in pen.

Also in favour of the argument that this fish was drawn by the scribe is the fact that, rather than having been drawn into the gap on this page, it appears that he may have been the cause of the gap. Where the scribe leaves gaps in anticipation of coming upon more material for a poem at a later stage, he will begin his new text on a new page.⁵⁰ Here, he would have left only a few lines, which would have been problematic if he had found a significant chunk of new material to add later. There is also no other reason to suspect that the scribe would have been anticipating further material to add to the poem *Boddi Maes Gwyddneu*;⁵¹ unlike some others in the manuscript, it appears to have been completed with the addition of a stanza on the grave of Seithennin.⁵²

This takes us to the possible relationship between this image and the text. We have a poem about a flood and then, a few lines down, we have a fish. I may have a simple sense of humour, but this seems quite funny to me (as does the water stain surrounding it, though surely that is just coincidence). It is the case that the fish is physically closer to the poem *Enwev Meibon Llywarch Hen* than it is to *Boddi Maes Gwyddneu*, but this is unproblematic if we assume that the fish was drawn before the former text was copied.⁵³ It may be that, once the scribe had completed *Boddi Maes Gwyddneu* and he was so close to the end of the quire (and the manuscript) he decided that he was finished. He then drew the fish a bit further down the page before coming across another poem

For example, later additions on fols. 24v, 35r and 40r all escaped erasure, probably because they were close enough in script or adhered to the Black Book scribe's layout of the page well enough to be overlooked.

⁴⁹ For example, the initials D and B on fols. 5r and 44r, respectively, contain such a detail. See Figures 9 and 11.

See, for example, the gap between fol. 23r and 24r discussed above (362, n. 24), which was partially infilled on fol. 23v.

⁵¹ 'The Flooding of Gwyddneu's Land'; this title does not appear in the manuscript. This poem is number 39 in Jarman's edition, and it has been edited by J. Rowland, *Early Welsh Saga Poetry: A Study and Edition of the Englynion* (Cambridge, 1990), 464–5.

This stanza first appears in the manuscript on fol. 32r, and in Jarman's poem 18, *Englynion y Beddau* ('The Stanzas of the Graves'). The stanza is probably original to that series of verses, but was attracted to this poem because of the shared figure of Seithennin. The addition of a stanza on Seithennin's death lends a sense of closure to the poem, suggesting that the scribe did not expect to encounter any additional material.

^{&#}x27;The Names of the Sons of Llywarch Hen'; this title is present in the manuscript. This poem is number 40 in Jarman's edition, and it has been edited by I. Williams, *Canu Llywarch Hen* (Cardiff, 1935), 30–1 and 187–9, and edited and translated by P. Ford, *The Poetry of Llywarch Hen* (Berkeley, 1974), 132–5.

to copy. It is natural that he would have copied this poem right next to the fish in order to maximize what little space remained available to him.

One final set of drawings may also have been the work of the Black Book scribe, and these, like the fish, also suffered at the hands of someone wishing to remove them. This is a series of knots, thirteen of which are at least partially visible, which were drawn in the outer margins accompanying certain stanzas of the *Afallennau Myrddin* and the *Oianau Myrddin* (Figure 25).⁵⁴ Each knot was erased, with varying degrees of success, and many were overwritten, demonstrating that they are older than much of the other marginalia. It is again very difficult to determine with certainty if they were the work of the Black Book scribe, but there is no obvious reason that they could not have been. The most informative example, perhaps, is that found on fol. 29v. This knot was very poorly removed because it overlaps with the manicule on that page, and to expunge it entirely would have meant damaging that image. It is not clear whether the knot was drawn after or before the manicule, but if the latter this would indicate that these were in fact probably the work of the Black Book scribe.

Because the knots are abstract, it is not possible to draw conclusions about any relationship that they may have to the contents of the *Afallennau Myrddin* and the *Oianau Myrddin*. The knots are decorative, but because they accompany only some stanzas of these two poems, it is possible that being ornament was not their only function. Instead, they may have been intended to mark something within the stanzas, although what that might have been is not obvious. If so, this would put them in the same class as a series of eleven squares that run along the margins of the final poem in the Black Book, *Enweu Meibon Llywarch Hen* (Figure 22). While not quite qualifying as images, these squares were decorative, with the first and final four outlined in red and the middle three, now missing, probably outlined in a corrosive green which ate through the vellum.⁵⁵ Within each square is a number of minims representing the count of the number of the sons of Llywarch Hen listed in each respective stanza.⁵⁶ To judge from the ink used to create the minims, which appears to be the same as that used to write the text, as well as from the red used to outline the squares, which was the same used to rubricate the initial of the poem, these were the work of the Black Book scribe. If the knots, then, share a similar function to the squares, that might bolster the

⁵⁴ 'The Apples of Myrddin' and 'The Cries of Myrddin'; these titles do not appear in the manuscript. The poems are numbers 16 and 17 respectively in Jarman's edition. Some additional signs of erasure are found in places where a knot might be expected, but as none are visible in these they have not been counted.

These may have still been intact when the Black Book was in Jaspar Gryffyth's possession, because he records the numbers contained in them in NLW Llanstephan MS 120, fol. 107r.

⁵⁶ Curiously Jaspar Gryffyth differs in his numbering of the now-lost boxes, providing 4 for stanza 6 when there appear to be three names in it (*pill*, *seliw* and *sandew*, l. 19), correctly giving 1 for stanza 7 (*mug maur trevit*, l. 21), and incorrectly giving 3 for stanza 8 when there seems only to be one (*Run*, l. 25), NLW Llanstephan MS 120, fol. 107r.

suggestion that they too were the work of the Black Book scribe. Until it is determined what the knots signify, they can only take our understanding of the manuscript so much further. Nevertheless, they seem to demonstrate the scribe's (or at the very least, a later reader's) engagement with the text, and it may also be tentatively suggested that they have implications for the phases of copying of the *Afallennau Myrddin* and the *Oianau Myrddin*, because some of those parts of these poems which may have been infilled, as on fol. 27r, or copied after a phase break, as on fol. 30v, are among those without knots.

Recovering Additions to the Black Book of Carmarthen

In examining the use of colour and image in the Black Book, we have already encountered several instances of erasure. These instances differ from the rest in that, as I have argued, the erased material may have been the work of the Black Book scribe; in one case, the erasure may even have been performed by him as well. The remaining instances of erasure – as evidenced by what it has been possible to recover – removed the work of later scribes. Indeed, as explained above, it appears the purpose of at least the most recent effort to 'cleanse' the manuscript was to remove everything that was not (or was not perceived to be) the work of the Black Book scribe. The perpetrator(s) of this act did not see or care how these additions could increase our understanding of the Black Book, and was unsympathetic to the loss of material from the corpus of medieval Welsh verse. Two instances of erasure will be discussed below, with the aim of highlighting the importance and interest of these forgotten contributions to the Black Book.

To discuss all of the later additions to the Black Book would be an article in and of itself. Though the sheer volume of additions to the manuscript is striking, and though some of the later contributors date to as early as the 13th century, because their contributions are generally minor and post-date the work of the Black Book scribe they tend to be overlooked.⁵⁷ Importantly, many of these additions have also been erased. Until recently, with the advancement of imaging technologies, this has of course created a bit of a problem for their analysis.

Erasure of marginalia in the Black Book may have taken place in several stages, as evidenced by palimpsests with layers of erasure on fols. 9r and 23v. The latest and perhaps most industrious effort to 'cleanse' the manuscript, however, appears to have taken place around the end of the

For example, the last nine lines (beginning at l. 13, fol. 35r) of *Englynion y Beddau* were copied by a hand of the 13th century different from that of the Black Book scribe. The discovery that the core of the Black Book was the work of a single scribe, however, can also cause confusion where these later additions are concerned; cf. J. Bollard, *Englynion y Beddau: The stanzas of the Graves* (Llanrwst, 2015), 124.

sixteenth century, as can be readily seen by anyone looking at the manuscript in any format. Parameters for the dating of the erasure can be determined on the basis of a piece of erased marginalia containing the date 1587, and the appearance of intact marginalia beginning around the early part of the seventeenth century, including that in the hand of Jaspar Gryffyth, who left his motto in Hebrew on fol. 3r. 58 Gryffyth, who died in 1614, was a clergyman and book collector through whose hands passed not only the Black Book, but many other important Welsh manuscripts, including the White Book of Rhydderch (NLW Peniarth MS 4).⁵⁹ The timing of the appearance of Gryffyth's hand, and the prevalence of it in the margins, has led to suspicion that he was the culprit responsible for the erasure. This is uncertain, however, and does not tally with Richard Ovenden's observation that 'He seems, in addition, to have been unconcerned about the external appearance of his volumes, as several survive in their original medieval bindings, a fact which also suggests he did not dismember his multi-part volumes like many other collectors of the period'; 60 if he was unconcerned with the appearance of other volumes, it stands to reason that the marginalia in the Black Book should not have bothered him. Furthermore, Gryffyth copied the contents of the Black Book into his commonplace book, now NLW Llanstephan MS 120, around 1607. From his transcription, he omitted the two stanzas in a later hand at the bottom of fol. 40r, thereby demonstrating that he recognized that this was not the work of the Black Book scribe (Figure 26). The expunger, on the other hand, must have believed that it was, as that was the reason that these stanzas survived the cleansing. On a few occasions the sixteenth-century cleaner failed to remove the work of later scribes whose efforts blended in sufficiently with that of the Black Book scribe to evade expunging, and though the hand on fol. 40r, ll. 12–16, is actually not very good and does not resemble the Black Book scribe's in any serious way, it appears to have been saved by virtue of the layout's adherence to the pattern established by the Black Book scribe on this particular page. The offset capitals, for example, imitate the offset capital copied by the Black Book scribe further up the page, with the result that the first impression of the page could be that it is of a piece. As we have seen with the fish, the cleanser of the manuscript did not always get it right, though it appears that Jaspar Gryffyth had a better eye for what was original and what was not.

Daniel Huws has noted the dated marginalia (unpublished), which is extremely difficult to read even with the aid of UV light but which has been largely recovered through efforts with multi-spectral imaging.

Accessible online at: www.llgc.org.uk/discover/digital-gallery/manuscripts/the-middle-ages/white-book-of-rhydderch/). On Jaspar Gryffyth see E. D. Jones, 'Jaspar Griffith (Gryffyth), Warden of Ruthin (d. 16140', National Library of Wales Journal 1(1940), 168–70 (accessible online at: welshjournals.llgc.org.uk/browse/viewpage/llgc-id:1277425/llgc-id:1277591/llgc-id:1277667/get650) and R. Ovenden, 'Gryffyth, Jaspar (d. 1614)', Oxford Dictionary of National Biography (Oxford, 2004) (accessible online with subscription at: www.oxforddnb.com/view/article/47276).

R. Ovenden, 'Jaspar Gryffyth and his Books', *The British Library Journal* 20 (1994), 107–39 at 111.

Other additions did not escape so easily. The number of pages with signs of erasure outnumber those without, though the extent of erasure per page varies.⁶¹ In any case, it is clear that this was a heavily annotated manuscript, which is a point of interest in its history in and of itself.⁶² Some of the erased material is, at least at present, irretrievable, but there are methods that can be used to bring other of it back. The methods that I have used on the Black Book are the application of ultraviolet light to the erased areas, the employment of photo editing software to modify high resolution images and most recently, with the help of the Lazarus Project, multi-spectral imaging.⁶³ The results of the processes vary, with contributing factors to the success of recovering material running from the type of ink that was used to create it to the level of force applied to the page when it was erased. Because there are not usually visible indicators on the page for which technique will work, if any, much trial and error is involved in the process. Before the aid of multi-spectral imaging, I had particular success with the application of UV light and photo editing on two different pages, respectively. These pages were also particularly fruitful in terms of the nature of the recovered additions, and it is to them that the remainder of this article will be devoted.

Fol. 39v

The first example appears (or rather, does not) on fol. 39v, and it is a useful example of the benefits of trial and error (Figure 27). Looking at this page in digital form, there is no hint of anything extraneous to the main text other than a lighter area in the bottom margin indicating erasure. Even with the manuscript sitting in front of you there is similarly little indication of what lies beneath, and with many such erased areas a trip to the UV lamp will reveal nothing. That is what made it so startling when this page was placed under the lamp and two ghostly faces immediately emerged, peering back up into the light (Figures 28–9).

As discussed above, images such as this are quite rare in medieval Welsh manuscripts, a fact which alone makes this an important addition to the dossier. There is not much detail to the features of the faces when viewed under UV light – giving them their spectral air – but with the aid of multispectral imaging a finer quality of the drawing emerges (Figure 30). The two people may either be two men or a man and a woman, with their eyes turned towards one another above the curl of lovely stylised noses; they appear to be clasping each other around the shoulders. The clavicle of the figure on the right is visible (unless this is to be interpreted as a beard), and she (or he) is wearing a

Areas of erasure are characterised by brightness and sometimes scratch marks, indicating perhaps that two type of tools – pumice stone and knife – were used, possibly on different occasions.

⁶² Compare to other of the 'Four Ancient Books', for example, and it is striking how little marginalia they contain.

See www.lazarusprojectimaging.com for more information. Thanks are due especially to Dr Gregory Heyworth and Brian Cook for taking and processing the images, and to Dr Maredudd ap Huw, Scott Waby and the National Library of Wales for permission and assistance.

floppy hat with spots on it. It is possible to make out their eyes, noses and mouths. Proximity to the bottom left corner of the page has led the figure on the left to a little more damage, and so not quite so much detail can be seen of him, though he appears to be wearing a similar hat. The accompanying text is illuminating to a certain degree, firstly in that it allows us to date this addition to the manuscript to the fourteenth or fifteenth century. The text itself reads *annerch a chariad at vy anhrydyddusaf gar*.⁶⁴ Presumably, the image was intended to depict the sender and the *car*, the recipient. It is not immediately clear if there was a reason that this message was included below the poem *Asswynaw naut duv*, but assuming that the placement was intentional rather than incidental, it is worth noting that this is a composition in which the poet sought reconciliation with his lord;⁶⁵ perhaps such a petition was also sought by the annotator with his kinsman.

As this message does not seem to be the type of text to have been copied from one place into another, especially when considering the personalisation created with the inclusion of the drawing, this would appear to be a somewhat unusual example for the Black Book of a text being composed in the margin. Even more significant, however, is the potential implication of the message: that if the if it was intended that the *car* read the message, either they had to have travelled to the manuscript, or it to them. If this is evidence of circulation of the manuscript, it comes at a relatively early date, and perhaps also, to judge from the apparent affection of the message, that the transmission was of a personal nature.⁶⁶ On the other hand, if the recipient was already in the vicinity of the manuscript, this may be taken as evidence that the Black Book was at the time held in a location where multiple literate individuals would be present – perhaps a monastery, scriptorium or wealthy household. If at least one of the figures in the drawing is understood to be a woman, this would also have implications; namely, that the Black Book would have been somewhere where educated women might be found.

Fol. 40v

Quite a different situation is found with the second example of recovered text, which is located at the end of Quire 6 on fol. 40v (Figure 31). Here, the added text fills the writing space of the page almost completely, as it was left an empty gap by the Black Book scribe. Also unlike fol. 39v, traces of the addition are still visible even to the naked eye; minims and in places whole letters are

⁶⁴ 'greetings and affection to my most honourable kinsman'. I am indebted to Paul Russell and Daniel Huws for their help with this transcription.

⁶⁵ 'I invoke the protection of God'; this title is taken from the first line of the poem. The poem is number 23 in Jarman's edition, and the version as found in NLW MS 6680B has been edited in N. A. Jones and A. P. Owen, eds., *Gwaith Cynddelw Brydydd Mawr* II, Cyfres Beirdd y Tywysogion IV (Cardiff, 1995) no. 10, 207–19.

Because there is not evidence that Quire 6 (fols. 31–40) ever circulated independently, the transmission would relate to the entire book.

discernible, but on the whole the page is illegible. Nevertheless, enough of the text of this page can be seen for it to feel tantalizingly recoverable, and several approaches have been taken to that end. 67 The first of these, following the success with fol. 39v, was to place the page under UV light; this produced negligible results, possibly as a result of the type of ink that was used to copy the text (Figure 32). Indeed the text appears more clearly in the photograph of the page found in Gwenogvryn Evans' 1888 facsimile edition, although it is uncertain if that is due to fading since 1888 or variation in the imaging processes (Figure 33). 68 The next approach was to enhance a high-resolution digital image using photo editing software. This method proved quite successful, and allowed Paul Russell and myself to make a relatively full though not complete transcription of the page (Figures 34–6). 69 This was subsequently followed by multi-spectral images of the page which have further improved legibility (Figures 37–40).

The results, I think, are quite striking (Figure 41). It is now possible to see the lines of text running across the page, and from a distance especially it looks very legible. The reality is that unfortunately the text is still difficult, and that the transcription, which still requires more work, is

These approaches would not have been possible without the support of the National Library of Wales – in particular, without the help of Dr Maredudd ap Huw and Scott Waby – and without collaboration with Dr Gregory Heyworth and Brian Cook of the Lazarus Project, and with Dr Bill Endres of the University of Kentucky. I am exceedingly grateful to all of them.

⁶⁸ J. Gwenogyryn Evans, Facsimile of the Black Book of Carmarthen, (Oxford, 1888).

The base image used for this work was kindly supplied by the NLW, and I am grateful to both Scott Waby and Dr Christine Voth for their advice in the early stages of the process. In attempting to recover the text of fol. 40v, the processes described by Peter Stokes ('Recovering Anglo-Saxon Erasures: Some Questions, Tools and Techniques' in Palimpsests and the Literary Imagination of Medieval England (New York, 2011), 35-60) and Christine Voth ('What lies beneath? The application of digital technology to uncover writing obscured by chemical reagent', Kodikologie und Paläographie im digitalen Zeitalter 3/Codicology and Palaeography in the Digital Age 3 (Norderstedt, 2015), 47–64) were followed. The only tools necessary to undertake the work are a computer (preferably one with a decent screen), photo editing software such as Photoshop or the GIMP, and a high resolution digital image. For the present research, GIMP (GNU Image Manipulation Program) version 2.8.10 was used. The program may be downloaded at http://www.gimp.org. The idea behind running images through such software is not to create something that is not on the page, but to enhance what is already there but that may be difficult for the human eye to see. Because colours are encoded in computers as numbers, it is possible to use the computer to both adjust their range and to manipulate their values with the potential for enhancing visibility in a faint image. Though numerous versions of the image were created in the course of this work, some of which provided better readings for certain areas of the page than others, the process described is that used to obtain one of the most successful images overall (Figure 27). To begin, the original image was opened in GIMP, and cropped to just within the edges of the page. Next, the Channel Mixer tool was opened; this dictates the intensities of red, green and blue in the final image. This dialogue box also contains a monochrome option which flattens the channels and converts the image to greyscale. The monochrome option was used and the channels were adjusted to the following values: red to -100, green to 0 and blue to 200. Next, the Levels dialogue was opened; this is a tool which enables the spreading out of colours in the image. The aim is to reassign the darkest pixels an intensity of zero and the lightest an intensity of 255, the brightest value, so that everything between these two points will be spread across the full range of 0–255. Adjusting each channel separately, the dark pixels (black slider) of each channel were left at zero and the lightest (white slider) red pixel was given a value of 162, that of green was given a value of 164 and that of blue was given a value of 162. Next Levels was closed and the image was exported before making further changes. After exporting, the Channel Mixer was re-opened and the value of green changed to 10. Next Levels was reopened and the mid-point (grey slider) of the red channel was moved to 10. Levels was closed and re-opened to save that change, then the black slider of the red channel was moved to 206, the grey slider of the green channel was moved to .75. Levels was closed to save the changes and the final image was exported.

incomplete. Even so, certain things can be said. To judge from certain distinctive letter forms – notably k's – a habit of miscopying and correcting over the line, and a similar unevenness of writing, it is likely that the text on fol. 40v was copied by the same thirteenth-century scribe as added the stanzas to the bottom of fol. 40r (Figures 42–5). There, as already mentioned, the text survived erasure because the scribe had adhered to the layout of the page as established by the Black Book scribe; if he adhered to the pattern of the Black Book scribe in that instance, it is reasonable to imagine that he might have on fol. 40v as well, though it is difficult to tell if he did. The text at the bottom of fol. 40r in this hand consists of two stanzas from a Dadl v Corff ac Enaid; 70 the first stanza is also found in a version in the Red Book of Talgarth (NLW Llanstephan MS 27), but the second stanza is not found there. This type of religious dialogue is part of a larger Continental tradition, but there are other versions of it in Welsh, including the more complete version within the Black Book itself mentioned above. 72 If, then, we think that the same scribe is responsible for 40v it is possible that he is copying the continuation. However, parts of the content that can be identified may give pause: several personal names are visible throughout the text, potentially lessening the likelihood that this is a Dadl. Moreover, a large initial B is seen quite clearly in the lower left side of the page, perhaps indicating that a new poem began around 1. 15 (Figure 46). A full discussion of the verse itself is outside of the purview of this article, but will be presented, together with a transcription of the text, in a forthcoming companion article.

Thus I hope to have demonstrated the types of new avenues which may be taken to explore the Black Book, and how through that exploration we can begin to fill gaps in our knowledge of the manuscript and find that its own, physical, spaces may not be as empty as they seem. The scribe's use of colour and image can inform our understanding of the construction of the manuscript both physically and in terms of his treatment of it. Styles of decoration may be used to hypothesize about the timeline of the creation of quires, while changes in decoration between or within poems may provide evidence for breaks in phases of copying. The abundance of colour in the manuscript has implications for the type of environment the scribe worked in and his access to materials there, and it is also indicative of the value he placed on the book. Likewise, the time he took to illustrate the Black Book is reflective of his care and perhaps his creativity. It is possible that the scribe copied these images directly from his exemplars — a scenario which would have interesting

⁷⁰ 'The Contention Between the Body and the Soul'. These verses are number 24 in Jarman's edition, and though they come from the same tradition as the *dadl* found earlier in the manuscript (fols. 9v–14r), they represent a different version.

This version has been edited by Ifor Williams in 'Dwy Gân o Lyfr Talgarth', *The Bulletin of the Board of Celtic Studies* 2 (1923–1925), 118–30. The poem appears on fol. 163v.

For a discussion of the body and spirit tradition in Welsh, see H. Lewis, 'Dadl yr Enaid ar Corff', *The Bulletin of the Board of Celtic Studies* 3 (1926–1927), 119–27 and M. Haycock, *Blodeugerdd Barddas o Ganu Crefyddol Cynnar* (Llandybïe, 1994), 203–33, esp. 203–11.

implications given the rarity of images in extant Welsh manuscripts – but, if so, it might be expected that those images which serve as apparatuses would be found in more normal usage. If the images were indeed the creative works of the scribe, then, it is possible to see that his drawings were inspired by certain features of the texts to which they were connected, and also that he might have had a sense of humour. Similar engagement with the text might be found among later annotators, for example if the missive on the bottom of fol. 39v were understood to be related to the poem Asswynaf naut duw.⁷³ This addition would not have been discovered but for searching the gaps of the manuscript, and it is an important reminder of what may be waiting to be found elsewhere. Even those texts which do not need to be discovered, which are known but are difficult or illegible. may be recovered or improved by modern technologies. Not only is the text of fol. 40v significant as an otherwise unattested piece of thirteenth-century Welsh verse, but it speaks to the history of the Black Book. This scribe appears to have been following the Black Book scribe's example of infilling gaps, and the fact that his addition, as with others of the thirteenth century, is so close in date to the original work suggests that the manuscript may have been for a time immediately after its completion found in a place with multiple literate individuals with access to the same type of exemplars used by the Black Book scribe himself.

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^{&#}x27;I invoke the protection of God'; for references for this poem, see above, 372, n. 65.