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Articoli/Articles

ILLUSTRATIONS AS ABSTRACTS: THE ILLUSTRATIVE
PROGRAMME IN A MONTPELLIER MANUSCRIPT
OF ROGER FRUGARDI'S CHIRURGIA

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SUMMARY

Illustrated manuscripts of Roger Frugardi's Chirurgia (c. 1180) form but a small proportion of extant manuscripts in Latin or in any of the medieval vernaculars. We study the single de luxe illustrated Latin manuscript of the work which is notable for its extensive programme of over 100 medical illustrations. We suggest that both the length of the cycle and the integration of the illustrations into the text is linked to the absence of rubrics and that the cycle was conceived to act as a form of visual rubric. We show that this function had a determining influence on the iconography and examine the methods used to represent the text visually.

The upsurge in the writing of new medical texts and in the making of vernacular translations in the thirteenth and fourteenth centuries are two of the more notable landmarks in the topology of medieval medicine. One of the very immediate and tangible repercussions of this upsurge concerned those manuscripts which were required to be illustrated. New texts, by their very nature, came without a tradition of illustration and medical images and picture cycles had to be newly created or adapted from pre-existing ones. Translations, for their part, by no means always took over the illustrations of the model, if that itself was indeed illustrated, and artists created lavish cycles for vernacular texts which had received little illustration in Latin. In

Key words: Roger Frugardi - Medical illustration - Medieval surgery.

both cases illuminators were quick to exploit the artistic possibilities of their new works, introducing new subjects for illumination and demonstrating greater variety in the artistic approach to the text. While the technical and artistic issues raised by the illustration of a new text or translation may have been most acutely felt close to the time of composition, they must perforce be considered anew if no illustrative tradition establishes itself over time. In this paper we consider how, in the absence of a strong tradition, one artist approached the task of illustrating a surgical treatise and rose to the challenge of creating a programme of over 100 illustrations to a text which had rarely before been illustrated.

At the beginning of the long line of separate and specialised surgical treatises written in the Latin West stands the *Chirurgia* of Roger Frugardi, written down c.1180¹. This eminently practical surgical manual discusses the treatment of the human body from head to toe and is divided into four books, one each covering the head, the neck, the area from the shoulder to the genitalia, and from the thighs to the feet. Within these books is described the treatment for wounds, dislocations, fractures, growths and other surface lesions. The work was translated or adapted into all the major European vernaculars from soon after its composition and is especially significant for the large body of derivative literature it generated. The Latin manuscripts number at least 30 and there are circa 10 witnesses to vernacular translations. Of this corpus no more than a handful of manuscripts are illustrated, leaving no doubt that the significance of the treatise lay in the text and not in any form or tradition of illustration. As a new treatise which never referred to illustration in the body of the text, there is no evidence to suggest that it was either illustrated from the outset or thought to require illustrations. Only a few of the earliest manuscripts receive any form of illustration and this consists almost exclusively of depictions of surgical instruments, mostly drawn in the margins. Depictions of medical matters – of consultations, diagnosis and treatment – only make their appearance subsequently with the figural illustrations found in a restricted number of Latin and vernacular manuscripts.

One reason for this irregular appearance of illustration may lie with the nature of the work itself. The *Chirurgia* is not a manual for a neophyte who needs guidance in the principal techniques of surgery and to be led through the entire intervention, but rather a manual for someone who already knows how to stop a haemorrhage, to apply bandages and splints and distinguish the dura mater from the pia mater. Pedagogical illustrations, showing the reader how to perform operations are therefore unlikely to be considered necessary. Moreover, to provide illustrations throughout the text of a non-narrative technical work is especially demanding, both in the overall conception of the programme and in the execution of the manuscript requiring careful integration of text and image. Even if the overarching framework of the text is here given by the *a capite ad calcem* order, the individual chapters are nevertheless independent, self-contained units to be consulted in any order; this certainly challenges the unity of any pictorial cycle. The division of the work into four books and the use of rubrics or initials to signal the beginning of a new chapter, and hence change of content, visually underline that the text is not to be read as continuous prose. The only narrative in the *Chirurgia* is within the chapters themselves in those parts which describe in greater or lesser detail the various steps performed by the surgeon during treatment. It is this description, as narrative, which offers the most material for illustrations depicting a figure group since it describes an interaction and sequence of events. While the illustrations may in turn draw on narrative techniques to evoke the text, they accompany an essentially non-narrative text.

Two richly illustrated manuscripts of the *Chirurgia* with an extensive cycle of illustrations are well-known to medical historians, and selections from them are regularly reproduced in medical histories and in anthologies of medical illustration. The most celebrated of these manuscripts is that accompanying the French translation of the text in London, British Library MS Sloane 1977 which contains 96 medical scenes on 8 folios of full-page illumination which preface the text. The illustrations are all the more interesting for the Christological cycle which runs

along the top register of the illustrated folios. The second illustrated manuscript, Cambridge, Trinity College MS 0.1.20 (1044), contains 50 marginal drawings which accompany the first two books of an Anglo-Norman translation of the text (2). Yet there is a third, far less well-known and virtually unstudied manuscript in this group, Montpellier, Bibliothèque Interuniversitaire, Section Médecine MS H-89, which outstrips the previous ones in the number of medical illustrations and whose artistic approach, iconography and layout differ considerably³. A consideration of these technical and artistic aspects of this latter manuscript will detain us for the remainder of the paper.

I. *The manuscript*

Montpellier, Bibliothèque Interuniversitaire, Section Médecine MS H-89 is an early fourteenth-century manuscript of 36 folios measuring approx. 345 x 250mm and written by one scribe. There are a few interlinear Latin annotations and some much later marginal notes in French. Since the only published description identifies the *Chirurgia* alone, we summarise its contents below⁴.

Ff. 1r-28ra contain the Latin text of the *Chirurgia* in two columns of 38 lines. The writing block measures approx. 230 x 170mm. There is a large opening initial whose decoration reaches to the bottom of the column and a two-line decorated red or blue initial at the beginning of each of the chapters. There are a few coloured capitals elsewhere, usually denoting the beginning of a receipt incorporated into the chapter or on one occasion a transition from one book to another. Coloured paragraph marks are used sparingly. The explicit 16 lines from the top on f. 28 reads *Explicit post mundi fabricam*.

Ff. 28ra-28va various short receipts for powders beginning *Pulvis rubeus*.

Ff. 28vb-29ra a list of contents to Books II and part of Book III of the *Chirurgia* beginning *De vulneribus que fiunt in collo*.

Ff. 29ra-29va two paragraphs *Emplastrum ad carnes et plagas* and *Ad probandum utrum intestina ruptura sint*.

Ff. 29va-29vb a continuation of the list of contents to Book III of the *Chirurgia* and the contents to Book IV.

Ff. 29vb-30va the *Liber urinarum* of William of Poitiers entitled *Incipiunt colores urinarum* and beginning *Urina ergo tenuis et rubea circa superficiem aliquantulum obscura*⁵.

Ff. 30va-32ra text beginning *Ordo rerum exigit ut de urinis*⁶. There is a blank at the beginning presumably for a four-line illustration.

Ff. 32ra- 33ra paragraphs on *mamille*, *sciatica*.

Ff. 33rb-36vb essentially a collection of receipts beginning *Ad fluxum sanguinis* and ending with a series of various *emplastrum*.

The *Chirurgia* alone is illustrated and this with a rich series of 115 illustrations distributed throughout the text. The illustrations fall into two groups. One hundred depict an interaction between patient and surgeon and are each positioned before the chapter to which they relate. They are the width of one column and typically measure 70 x 50mm, though there is some variation depending on the layout of the page. Thirteen illustrations are reduced in size to approx. 70 x 20mm and depict medical jars with foliage, while one depicts foliage alone, and these all accompany medical receipts. With the exception of the final folio of the *Chirurgia* which has only half a column of text, each and every folio, *recto* and *verso*, is illustrated with between one and four illustrations apiece. The opening folio contains two further illustrations, one at the top of each column and both are rubbed. The first precedes the prologue to the *Chirurgia* and depicts a seated master, hand raised and finger pointing, interacting with three tonsured clerics, two of whom have books open before them. The second illustration precedes the words *continuitatem dissolviendo* in the prologue and depicts two figures, standing apart and naked. As provided for in the prologue, these Adam and Eve-like figures allude to the Creation on the one hand and, on the other, to the human body as the object in this world of the ministrations of the surgeon. The illustrations are all precisely bordered by a coloured frame. The background, always of a different colour to the frame, is blue, red, yellow or green and the combined effect is one of bold colouring. There is no background setting or suggestion of a location; in a few illustrations the background is decorated with a geometric pattern or with dots and foliage-

like swirls in another colour but otherwise is plain. The surgeon and patient are always depicted as full-length figures from a frontal perspective and stand on the bottom bar of the frame, sometimes stepping into it but not beyond. The smaller illustrations typically depict three differently coloured jars equally spaced across the illustration with some decorative foliage between them. There are no guide pictures or instructions to the artist anywhere in the manuscript.

II. *The programme*

a. *Layout*

The Montpellier manuscript is unique among the illustrated manuscript of Roger's *Chirurgia* in having the illustrations integrated into the body of the text. This places stricter demands on the production of the manuscript and requires careful planning. There is no evidence that this manuscript owes its layout or programme to a model; on the contrary there is evidence to suggest that the artist worked directly from this manuscript, and the layout and illustrations function together in such a precise fashion that the programme seems not to be inherited from elsewhere.

If a manuscript of this work was planned with a very low level of illustration one approach was to make use of the natural divisions within the text which comprised four books, each preceded by a prologue. Thus one manuscript of the work, Cambridge, Gonville and Caius College MS 147/197 opens with an historiated initial showing a surgeon working on a patient with a trephine. According to this pattern the one or more illustrations embellished the manuscript and at the same time served as a visual guide to the beginning of the books. To go beyond this, however, there is no thematic pattern or internal subdivision, other than the beginning of each chapter, which suggests itself as a basis for illustration. This perhaps leaves the impression in the larger cycles of figural illustration of their being conceived in a rather ad hoc manner and distributed irregularly. This view is incompatible with the Montpellier

manuscript since in the dual function of embellishment and visual guide lies the key to the programme.

As the *Chirurgia* moves from describing the treatment for one ailment or illness to another, so too is there commonly in the manuscripts a division marked by a rubric or, at the very least, by a coloured or larger initial. The Montpellier manuscript has a two-line decorated initial at the beginning of each chapter, but no rubrics. To further aid locating a passage and identifying textual divisions some manuscripts also have a table of contents preceding one or more of the four books or a running title. If there are none of these finding aids which visually clarify the text there is little more than the *a capite ad calcem* order of the work to guide the reader through it. Integrated illustrations, however, can assume this function of subdividing a text, a practice which is exploited in the Montpellier manuscript where the iconography of the illustrations announces the contents of each chapter in a form of visual rubric. The conception and distribution of the 115 illustrations throughout the text in this manuscript derives logically from their role as visual markers to assist the reader in identifying and locating passages in the total absence of rubrics. Other textual markers in the manuscript are minimal. There is no running title and the work is not clearly divided into books. Book One alone has a table of contents and there is no prologue or other sign of division between the end of Book Two and the beginning of Book Three. The prologue to Book Two and the abbreviated one to Book Four do not commence at the beginning of the line but follow on directly in mid-line from the preceding Book; the former is identified only by a paragraph mark and the latter by a small undecorated colour initial. In view of this, the illustrations, positioned before the corresponding chapter where one would normally expect a rubric, assume an important role in dividing up the text and strongly suggest a motivation for the entire programme based upon their function as finding aids. They assume this function throughout the work and it is only on the last few folios that this pattern is broken and the decorated initial is not consistently preceded by an illustration.

b. Abstracting the text.

The methods used in the *Chirurgia* to represent the text visually display little variety. The primary function of the illustrations is as a visual rubric, enabling the reader to understand the contents of the chapter at a glance, and it is a natural consequence of this that they relate literally to the text. Of the 115 illustrations only the opening one does not relate directly to text and the second illustration, accompanying the prologue, is the only one to relate symbolically to it in its depiction of two naked figures. This latter illustration is also unique in not taking the place of a rubric. While 13 illustrations depict jars or foliage as an indication of a medical receipt in the accompanying chapter, 100 depict the surgeon and patient together.

In all 113 cases the artist adheres strictly to the details in the chapter and appears to have worked directly from this manuscript. Evidence for this is found in the perfect correspondence between the illustrations and the text and especially in the one case where the illustration follows the defective text in this manuscript. In the chapter covering treatment for a dislocated elbow there is a blank. The artist followed the sense as best he could but the resulting illustration testifies to the missing word. The full text specifies that the surgeon is to knot a bandage together to be used as a form of stirrup and to use this to reduce the dislocation by pulling upwards and at the same time pushing downwards with a foot. The detail about knotting the bandage is omitted (*fasciam imponat et ex ea [blank] faciat* f. 20) and the artist depicts one end of the bandage at the patient's elbow and the other end arriving just at the surgeon's foot. The only sense in which the illustrations contain extra-textual elements is the addition of a figure to hold various surgical accessories - instruments, splints, bandages and jars. This figure or assistant is never at the centre of the illustration and complements the focus which is the interaction between surgeon and patient. Also to be noted is that extra details pertaining to alternative or supplementary treatments in this manuscript with respect to others of the same work are not selected for illustrative treatment.

Each chapter of the *Chirurgia* typically opens with a succinct description of the medical condition and then describes the procedure to be followed by the surgeon. The dry, technical language and the absence of rhetorical colours offer little opportunity for artistic flights of fancy. The illustrations are here based directly and literally on the text itself and all adhere to a pattern by which they abstract key points from the chapter to produce a visual guide to the contents of the accompanying text. This pattern is consistent with their position immediately prior to the corresponding text and with the lack of rubrics. As an example of this technique Figure 1 offers a comprehensive visual summary of the contents of one of the chapters dealing with cranial fractures. The text specifies that the surgeon should first determine the extent of the fracture by placing his fingers into the narrow opening and then remove any fragment of bone with a pair of forceps, and so the chapter continues in this vein. The illustration has condensed the chapter into three principal components. The assistant on the left holds up the forceps for removing the bone and holds a jar in the other hand which alludes to the Apostles' ointment put on the fracture at the end



Fig.1 - Cranial fracture, Montpellier, Bibliothèque Interuniversitaire, Section Médecine MS H-89, f. 2v.

of the treatment; the surgeon meanwhile probes the fracture. This illustration does not function as a visual description of the text; it depicts only the first of several stages of treatment and does no more than allude to two others. It is far more effective if considered as a visual guide or summary in which the artist has selected for illustration details from the chapter in order to provide sufficient information for the contents to be speedily recognised. In this the illustration functions as a cueing image, triggering the memory about the contents of the chapter. Although some illustrations are not as visually full as this one and their meaning rests on two components, all illustrations function along these lines. When no assistant is shown and the sense is carried by the interaction between surgeon and patient, the surgeon is often depicted holding a jar in one hand while treating the patient with the other.

This method of abstracting items for illustrations is at its best if the text includes such details as the name of an instrument or deals with a procedure which lends itself easily to illustration and if, further, related conditions are dealt with in a single chapter. If there is a sole chapter on wounds to the intestines, then the artist need not differentiate between types of wound in this region, although the chapter may itself describe several varieties. It is sufficient for the artist to portray the surgeon with his hands positioned significantly about the abdominal region for it to signify an abdominal complaint. Where several chapters deal with related conditions, such as wounds to the head or diseases of the eye, the artist of this manuscript clearly differentiates them on the basis of textual details. There is an illustration corresponding to each of the seven consecutive chapters which discuss separate eye conditions and they are each sufficiently differentiated so as not to be confused. For inflammation of the eyes and eyelids the surgeon is instructed to incise the vein at the front of the head and to follow this with the application of an unguent. The illustration (Fig. 2) duly depicts the surgeon incising the patient's forehead and introduces the figure of an assistant to hold a jar. The treatment for watering of the eyes consists of placing a seton into the ear and this is the very procedure depicted. The treatment for web in the eye is an



Fig. 2 - Inflammation of the eyes and eyelids, Montpellier, Bibliothèque Interuniversitaire, Section Médecine MS H-89, f. 6v.



Fig. 3 - Ectropium, Montpellier, Bibliothèque Interuniversitaire, Section Médecine MS H-89, f. 7v.

ointment alone, and here the surgeon prominently holds an ointment jar in one hand while he indicates the site of the condition with the other. Ectropium requires the eyelid to be cut, as is depicted (Fig. 3). This series of illustrations, therefore,

corresponds very precisely to the accompanying text and each depicts a key detail of treatment enabling them to be differentiated.

c - Representing the text

The allusive technique by which the artist depicts one act and alludes to others, either preceding or succeeding it, is a commonplace of narrative illustration. Given the limitations of space - the illustrations are all the same width as the column - the drawing of a series of images to accompany a chapter was impractical and the drawing of two scenes within a single illustration required them to be relatively compressed. Indeed only on one occasion early in the programme does the artist draw the same figure twice in one illustration to depict two moments. This occurs, perhaps significantly, in the illustration to the first chapter in Book One which opens a series of several chapters, all illustrated, covering the treatment of wounds to the head. The third illustration, keyed to text on damage to the cerebral membranes, is framed in the usual way but depicts in the left half the surgeon pointing to the patient's clearly visible headwound and holding up a jar, while in the right half the surgeon has both hands on the head of the patient who is now standing.

If the artist is to depict a single interaction between surgeon and patient, the selection of that moment is crucially important. An illustration based on a reading of the first few lines of the chapter would give little more than an indication of the signs and symptoms or of the causes; the artist rarely makes these the focus of an illustration. Only in a very few cases of wounds is the cause - an arrow, sword or stone - depicted. The arrow is shown significantly located in the patient's neck to signify just that type of wound and the sword and stone feature as allusive components in two illustrations. The illustration in this manuscript derives from a reading of the chapter and is not consistently based upon a reading of the first few lines, a procedure which typically occurs in the Sloane manuscript. The very presence of accessories to treatment in addition to the main interaction is also indicative of a familiarity with a large part, if

not all, of the chapter. In Fig. 1, for example, the artist depicts the procedure described in the first few lines but adds the jar of Apostles' ointment which is not mentioned until the end of the chapter. In conjunction, these facts confirm the thoroughness with which the programme was planned and executed.

The illustration invariably evokes an action and is not a static depiction of symptoms or of the equipment or materia medica required in treatment. The selected action may be, at its simplest, a depiction of the surgeon and patient engaged in conversation, as suggested by the gestures of the surgeon, usually hand raised and finger pointing, and the patient, usually with upturned hand to accept what he has heard. But conversation alone scarcely conveys the nature of the patient's affliction and is not well suited to acting as a mnemonic image for a specific chapter; the patient's condition is therefore also depicted. This is not however a set-up favoured by the Montpellier artist and if a scene of consultation is depicted, the surgeon is at least shown supporting the affected part of the patient's body to focus the viewer's attention on the condition.

The details of treatment form the core of the chapters and furnish most material for the accompanying illustrations. If the surgeon has recourse to the knife or other instrument during treatment, that is usually depicted. The instrument becomes a visual component in its own right which works with the other elements of the illustration to assist identification of the chapter. If a purely manual intervention is required, the placing of the surgeon's hands is highly significant. In both cases the emphasis lies with the site of the wound or ailment, as indicated by the surgeon's hands drawn close to the affected region and the addition of various accessories. These separate elements work in conjunction to carry the meaning of the illustration. This emphasis takes precedence over any visual description of treatment or realistic depiction of the condition; while the surgeon may appear to be treating the patient in a realistic manner this is a consequence of the nature of medical illustration and not an aim. Consider Fig. 4 which is keyed to the chapter on how to reduce a dislocated shoulder. At first glance the illustration may seem to depict the surgeon treating the



Fig. 4 - Dislocated shoulder, Montpellier, Bibliothèque Interuniversitaire, Section Médecine MS H-89, f. 19v.

patient, aided by an assistant⁷. Yet what the illustration really conveys is that the patient has a problem with the shoulder and that treatment involves the use of a pole and a ball. The prescribed technique is to place the pole through the ball, so that the ball rests under the patient's shoulder. While the pole is then held by two men and the patient stands on a stool, the surgeon pulls down on the patient's arm and pushes the stool away. These details are not faithfully described in the illustration which has the pole suggestively under the patient's arm but also has the surgeon hold the ball; this only reinforces the idea that the illustration does not attempt to depict treatment realistically. Instead the illustration, consistent with the pattern outlined, reduces the chapter to a few key elements which would suffice to identify its contents.

The representation of text in the form of illustration requires a number of visual conventions which must be comprehended and accepted by the viewer. One of the most striking examples in this manuscript is the use of pose. In a few illustrations the figures of surgeon and patient stand some distance apart and there is no physical contact between them; in this context this translates into an unfavourable prognosis and the surgeon's

hesitation to accept the other as a patient. There are, after all, a few medical cases in which the intervention of the surgeon is likely to prove fruitless and, although treatment may be suggested in some cases, in others the *Chirurgia* advises non-intervention. If elements of treatment cannot therefore be abstracted from the text because no treatment is described, the artist must adopt another approach. One possibility is to depict the condition. The Montpellier artist in fact not only depicts or alludes to the condition but also consistently alludes to the unfavourable outcome. The only two illustrations which feature women both deal with problems of the breast. The first of these two chapters states that if the breast is hard, bluish and dry, then the cancer is incurable and should be left alone; the only course of treatment would be to remove the breast entirely. Fig. 5 shows the woman supporting her breast, which has no marks of disease, and the surgeon stands at some distance from her. This distance and utter lack of contact between the figures represents the pessimistic prognosis in those cases where intervention is ill-advised. To add to the formality of the situation the surgeon holds a glove as a further indication of the gravity of the condition and possibly an allusion to his formal refusal to intervene. The surgeon is only depicted in this pose and holding



Fig. 5 - Cancer of the breast, Montpellier, Bibliothèque Interuniversitaire, Section Médecine MS H-89, f. 22r.

or wearing a glove in very serious cases. These are four in number: a wound to the kidneys, which according to the text should be left to God alone and whose illustration shows the wounded patient clasping his hands; an arrow wound to the head, again with the patient clasping his hands while the surgeon, uniquely, holds the arrow; a wound to the major organs; and also for redness, swelling and web in the eye. In a further case which is described as being fatal, that of a wound to the oesophagus or trachea, and in which the chapter prescribes no treatment, the accompanying illustration depicts the patient lying down, supporting himself on one hand, his head turned away from the surgeon. These illustrations, once again, abstract key elements from the text to permit a rapid identification of the contents and utilise pose and gesture to assist in rendering the overall sense of the illustration.

The extensive programme of illustrations in this manuscript cannot fail to strike any viewer as remarkable for its richness and careful execution. The evidence suggests that the programme was newly created for this manuscript and conceived to perform an important functional role, as made clear by the particular design of the manuscript without rubrics and with few other subdivisions. It is consistent with the nature of the non-narrative text that the illustrations are independent images and physically separated from each other. Yet considered as a whole the programme is among the most extensive and rich programmes of illustration to a medieval surgical text and its contribution to the history of medical illustration and its place as one of three highly illustrated manuscripts of Roger's *Chirurgia* have been unjustly neglected. We have here attempted to enquire into the methods and functions of these illustrations to consider why this manuscript was illustrated in this particular fashion, in the absence of all information about its circumstances of production.

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 4. Catalogue général des manuscrits des bibliothèques publiques de France, Vol. 1, O. S., p. 319. The catalogue entry is incorrect, listing two copies of the Surgery of Roger. The Surgery of Roger is now correctly H-89 while H-89 Bis transmits the Surgery of Bruno written by the same scribe and illustrated by the same artist. Finally, H-89 Ter transmits the Surgery of Albucasis and is highly illustrated with drawings of instruments.
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