

# Windows on the Womb and Guiding Trains of Light: Figuring the Real in Plate XXVI of William Hunter's *Anatomy of the Human Gravid Uterus*

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**Abstract:** Eschewing the symbolic in favour of commitment to the unmediated replication of exactly that which is actually observed, Hunter's attitude to the images in his *Anatomy of the Human Gravid Uterus* embraces a juridical ideal of scientific representation: images should tell the truth, the whole truth and nothing but the truth. Contemporary scholars have questioned this appeal to objectivity, maintaining representation always exists inside culture and arguing gender frequently inflects purportedly neutral scientific vision. I extend that debate via a reading of Plate XXVI, which is frequently misunderstood as representing something completely different to what it actually depicts. Its sequence of images, I argue, chart a narrative of enlightenment wherein folk mythologies of the uterus are subdued by the controlling scientific gaze. I also suggest a previously unrecognised correspondence between Plate XXVI and one of the plaster casts of the dissected bodies preserved in the University of Glasgow's Anatomy Museum.

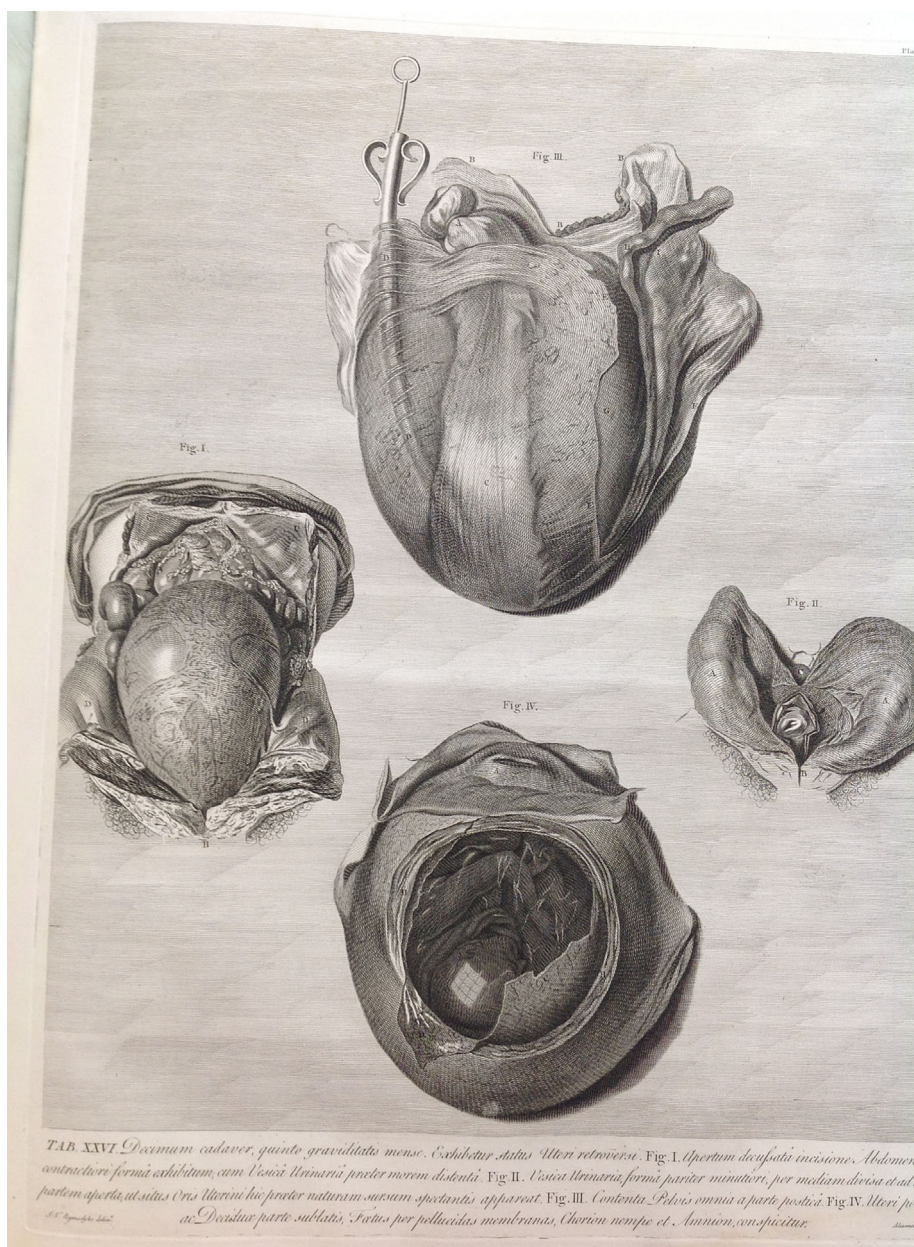
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Even monsters, and all uncommon, and all diseased animal productions, are useful in anatomical enquiries [...] it may be said, that nature, in thus varying and multiplying her productions, has hung out a train of lights that guide us through her labyrinth.

William Hunter, *Two Introductory Lectures*.<sup>1</sup>

## 1. Plate XXVI and Cast 48.12<sup>2</sup>

Plate XXVI of William Hunter's *The Anatomy of the Human Gravid Uterus* (Figure 1) consists of a series of four illustrations of what Hunter describes as the 'circumstances of a retroverted womb'.<sup>3</sup> The womb in question belonged to the tenth of Hunter's anonymous 'subjects', dissected by Hunter in the fifth month of her pregnancy, the contents of her abdomen painstakingly documented in exquisite detail, first in in-theatre drawings by Jan van Rymsdyk, and then in engravings by artists such as Robert Strange who 'by his hand secured a sort of immortality to two of the plates'.<sup>4</sup> Plate XXVI consists of four discrete images, drawn to different scales, each showing something different. Plate XXVI, Fig. I (at the left side of the page), we are told in the explanatory text accompanying the plate (which appears both in Latin and in English), 'shews, in miniature, the *abdomen* fully opened by a crucial incision, and the bladder enormously distended'.<sup>5</sup> Fig. II (at the right side of the page) 'drawn in miniature to the same scale shews the bladder cut down through its middle, and opened, at its lower part, to shew the situation of the *os uteri*'.<sup>6</sup>



# I. Hunter, *Anatomy of the Human Gravid Uterus*, Plate XXVI

Fig. III (at the top of the page) moves to a different perspective, presenting the viewer with 'a back view of the whole contents of the *pelvis*, consisting principally of the retroverted womb'.<sup>7</sup> Finally, Fig. IV (at the bottom of the page) illustrates 'the womb opened, to shew the secundines and their contents'.<sup>8</sup> In addition to this text, the details of the images are rendered legible to the viewer by glosses to the alphabetical symbols which mark distinct anatomical features in the engravings: in Fig. IV, for example, 'A' marks 'the *os uteri*, turned upwards'; 'B' 'the substance of the womb, cut through'; 'C' the 'external surface

of part of the *Decidua* [...] thick and opaque'; and 'D' 'the internal surface of part of the same membrane'.<sup>9</sup>

Plate XXVI is unusual. Unlike most of the engravings in Hunter's *Anatomy*, which illustrate 'normal', ostensibly healthy pregnancies (albeit ones which somehow ended in both maternal and foetal death), this is an 'uncommon' 'production': an image of a pregnancy where something has gone horribly, terribly, wrong. The woman whose unfortunate body provided the material for the dissection which Plate XXVI records appears to have experienced a catastrophic and presumably agonising event. Retroversion of the uterus (or 'tipped' or 'tilted' uterus) is a condition wherein the uterus, instead of being vertical or tipped forward, is tilted backwards towards the spine.<sup>10</sup> It is not in itself an uncommon condition nor necessarily a particularly dangerous one. The condition, which can be genetic, or occasioned by the weakening of the ligaments holding the uterus in place after childbirth or associated with conditions such as endometriosis or pelvic inflammatory disease, affects about one in every five women and in most instances is relatively benign: in pregnancy, the retroversion usually spontaneously corrects itself in the first trimester. But in some cases, the retroverted uterus, rather than righting itself, becomes, as it grows, wedged in the pelvis instead. This is a serious complication, and the uterus, increasing daily in size and now trapped or, to use the technical (although interestingly metaphorical) term, 'incarcerated', may block the evacuation of urine and even of faeces.<sup>11</sup> This is what appears to have happened to the poor woman here: Hunter points out in a note to Fig. III that the rectum (denoted on Plate XXVI, Fig. III, by the letter 'C') is 'pressed and flattened'.

The pathology of what may happen when the gravid uterus obstructs the rectum and the urethra is even more obvious in another of the artefacts that Hunter produced in the course of creating the *Anatomy*. Along with the drawings of his dissections, Hunter also created plaster casts of at least some of the bodies. Some of these casts are lost, but eleven of them, together with hundreds of jarred specimens from Hunter's collection, are housed in the Hunterian Collection at the University of Glasgow, and some are on display in the University's Anatomy Museum. Photographs of several of these are reproduced by N. A. McCulloch, D. Russell, and S. W. McDonald in an article on the casts published in *Clinical Anatomy* in 2001. Juxtaposing reproductions of the casts with engravings in the *Anatomy*, they show that three of the casts correspond directly to individual plates in the *Anatomy* (for an example of this correspondence, see Figure 2).<sup>12</sup>



Fig. 5. Cast 48.5. The child in the womb in its natural situation.

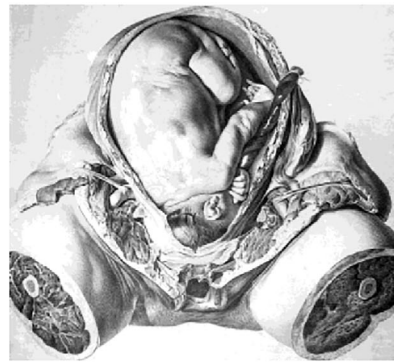


Fig. 6. Plate VI from *The Gravid Uterus*.

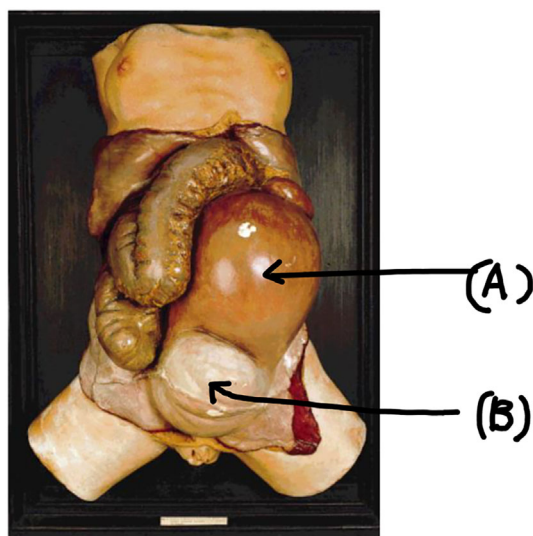
## 2. McCulloch et al., juxtaposition of an image of Cast 48.5 with Plate VI from *The Gravid Uterus*



However, although McCulloch, Russell, and McDonald include in their article a reproduction of Cast 48.12 and note that it shows a ‘greatly distended cecum’, colon, and bladder (Fig. 3), they do not associate Cast 48.12 with Plate XXVI, surmising instead that in the case of Cast 48.12, ‘this obstruction [to the bladder and colon] could have been caused [...] by the fetal head becoming lodged in a small pelvis, a diagnosis consistent with the small proportions of the subject’.<sup>13</sup>

Perhaps one of the reasons why McCulloch, Russell, and McDonald do not associate Cast 48.12 with Plate XXVI is because the two look very different from each other in ways Cast 48.5 and Plate VI do not. As McCulloch, Russell, and McDonald explain, there are often subtle differences between casts and drawings (as indeed there are between Cast 48.5 and Plate VI), even when they appear clearly to derive from the same body. Drapery may be present in drawings and plates and missing from the casts; intestinal dispositions vary; the casts are sometimes more dissected than the plates.<sup>14</sup> Cast 48.5 and Plate VI, however, despite some minor differences in what is represented are obviously of the same bodies: the disposition of foetal limbs and hands and the position of the foetal ear, in particular, all signal the common identity of their subject matter. Plate XXVI, Fig. I, and Cast 48.12 are much more unlike: the breasts are exposed in Cast 48.12 (as they are in some of the other casts) and veiled in Plate XXVI, the colonic distention is more obvious in Cast 48.12 than it is in the plate, and the two may even appear to depict different organs, at least from the perspective that the photograph of Cast 48.12 has been taken.

Superficially, then, the two representations look different from each other in ways the plates and casts that McCulloch et al. associate with each another do not. A second reason why McCulloch, Russell, and McDonald may not have associated the two, however, would be if they had concentrated primarily on the visual (the casts and the images) rather than simultaneously examining the *Anatomy*’s textual glosses to the plates. As I will show in more detail later, attention to the visual at the expense of the written glosses can easily lead to confusion, especially in the case of the pathological bodies, or perhaps



3. McCulloch et al., reproduction of Cast 48.12, GLAHM:I25636 (pregnant torso with distended bladder and colon)



body, that Plate XXVI and Cast 48.12 represent. McCulloch, Russell, and McDonald explain what they think we see in Cast 48.12 thus:

48.12. Pressure of the gravid uterus on the rectum and urethra, producing distension of the intestines and bladder. ... The anterior abdominal wall and peritoneum have been reflected. The liver is seen on the right side, the small intestine on the left posterior to the gravid uterus. The greatly distended cecum, ascending and transverse colons occupy much of the right side and epigastric region, the left side being filled by the gravid uterus. Inferiorly, the distended bladder fills much of the hypogastric region<sup>15</sup>

This explanation of the organs in the cast is also offered by McDonald in a recorded lecture on the casts available online, wherein McDonald describes Cast 48.12 as a cast of a body carrying a full-term pregnancy.<sup>16</sup>

In other words, McCulloch, Russell, and McDonald maintain that the organ in the superior centre left of the cast in Figure 3 (marked (A) on the reproduction) is a full-term uterus, and the mass in the lower centre of the pelvis (marked (B)) is the bladder. I want to suggest, however, that organ (A) is likely to be, not the uterus, but the bladder, in Hunter's locution, 'enormously distended' and that, correspondingly, the mass in the pelvis (B) is not, as McCulloch et al. hold, the bladder, but either the uterus or quite possibly, not an organ at all. In the notes to Plate XXVI, Hunter mentions a 'tumour which possessed the whole cavity of the pelvis'.<sup>17</sup> Perhaps, the mass in the pelvic area that appears in Cast 48.12 is this 'tumour'? Alternatively, the mass could be the uterus, not a uterus at term, but one around five months gravid, as is the uterus in Plate XXVI? If either of these suggestions are correct, Cast 48.12 is likely to be a cast of the body in Plate XXVI. This seems eminently plausible, not least because it is highly unlikely that Hunter would have had two different bodies to dissect which presented with such strikingly similar symptoms. The acute urinary retention (AUR) apparent in both the plate and the cast (whichever organ you take the bladder to be in the cast) is a rare condition in pregnancy and when it happens is highly associated with retroversion and incarceration of the uterus.<sup>18</sup> It may be a theoretical possibility that Hunter might have obtained two bodies for dissection which both exhibited this very rare condition, but it is very unlikely, and such an extraordinary coincidence would probably not have passed without remark.

As I will show later on, mistaking the nature of the organ that appears in Plate XXVI, Fig. I, is a feature of at least two published accounts of that image, so it would not be surprising if the same errors beset interpretations of the cast and for similar reasons. Whatever the relation between the plate and the cast both are unusual among the corpus of plates, drawings, and casts in that they are self-evidently pathological specimens, the cast even to the untrained eye. Plate XXVI is also more obviously 'interventionist' in what it shows than many of the *Anatomy's* other plates are. Intervention, of course, is a precondition for all the bodies represented in the atlas, none of whom walked into the dissecting room or obligingly lay down on the table to be discovered there by the objective eye of science. But the fact of prior arrangement is generally understated in the *Anatomy*; instead, the suggestion communicated both by text and by images is that the object of the gaze is something uncovered or encountered rather than constructed or arranged. In an often-quoted gloss to Plate VI, for example, Hunter claims the image 'represents the child in the womb, in its natural situation,' [...] 'every part' being shown 'just as it was found: not so much as one joint of a finger having been moved to show any part more distinctly, or to give a more picturesque effect'.<sup>19</sup> Plate XXVI's images, however, are obviously constructed rather than 'found': the uterus in Figs III and IV has been removed from the body and placed so that we can see it from different angles, for example, betraying,

perhaps, a tacit consciousness that point of view may illuminate or conceal what we are able to see.

In what remains one of the most thought-provoking and perceptive of essays on Hunter's *Anatomy*, Ludmilla Jordanova has remarked that 'the assertion that seeing was knowing [...] was integral to [Hunter's] project'.<sup>20</sup> Hunter maintains that 'the art of engraving [...] gives an immediate comprehension of what it represents';<sup>21</sup> seeing is for Hunter the 'epistemological ideal' wherein truth exists 'on the surface, ready to be received by the trained, observant mind'.<sup>22</sup> Hunter's work, however, fabricates nature rather than reflects it. His female bodies, although they are represented (brutally) as dead, appear 'fresh' and gleaming and his foetal bodies almost alive, although in reality, the drawings, sketches, and casts would have taken time, during which the bodies would have decayed: Meredith Gamer has noted that Hunter himself acknowledges this deterioration when he refers to 'injuries' wrought by the passage of time.<sup>23</sup> Those 'injuries', however, occasioned by decay, are not apparent in the representations. This is one way in which the *Anatomy's* images complicate Hunter's appeal to unmediated truth; another is the fact that, as Jordanova explains, 'cultural constructs and social relationships' underlie Hunter's representations as they do any other realist image, realism itself being a cultural construct.<sup>24</sup> Hunter wants to claim the drawings exist outside culture, but as Jordanova shows, the images do not merely reflect a natural order but are involved in particular in a mediation of gender and family relationships. So, for instance, the ways in which Hunter's illustrations depict the genitalia in unrelenting detail '[reveal] to view what was normally concealed' and thereby mark the hegemony of 'penetrative medical science over that which before had been deemed private' and out of sight.

'Medicine is a form of culture in that [...] it contains meanings that must be interpreted in relation to myths, symbols and beliefs', Jordanova claims.<sup>25</sup> Nowhere is this more true in the *Anatomy* than it is in the case of Plate XXVI, whose hyper-realist images, presented as a disinterested record of a dissection, invoke frames of reference that suggest wider stories. Organised around oppositions — secrecy and exposure, the hidden and the revealed, and darkness and light — Plate XXVI traces an implicit narrative trajectory which takes the reader's eye from figure to figure in a non-linear and unexpectedly circuitous path, charting in the arrangement of the images which form its whole an implicit narrative which invoke a series of tropes recurrent in the figuration of the uterus from the classical period on. Plate XXVI charts a journey from obfuscation to revelation which evokes traditional wisdoms of the uterus only to dispel them, culminating in an image in which penetration of the uterus becomes itself the very figure of scientific enlightenment.

## 2. From Obscurity to Illumination

I will shortly address the nature of the narratives embedded in Plate XXVI, identify the folk wisdoms which those narratives elicit, and show how the viewer of the *Anatomy* is guided in his journey from darkness into light, but I want first to consider who the viewer of the *Anatomy* was and how he would have encountered the atlas' textual and visual content. I use the male pronoun here intentionally, for the intended audience of the *Anatomy* was undoubtedly male. As Gamer shows, the book was extraordinarily expensive: its production involved twenty artists (four draftsmen and sixteen engravers), and van Rymsdyk was paid two hundred guineas for just three of the thirty-one completed drawings. It retailed at six guineas, a price too high for run-of-the-mill medical students: this was a volume aimed at a select group of patrons with very deep pockets as well as an

education which included Latin, predominantly afforded to boys not girls.<sup>26</sup> Buyers would have had to have substantial space to accommodate the publication, which as an elephant folio with life-size images necessitates a large table for its display. And, in cases where it was bought for a personal library, the buyer would presumably also have had to have a private room where the book might be viewed. James Raven has shown that by the mid-eighteenth century, private libraries had become a focal living and entertaining room in numerous English country houses, used by women of the household as well as by men.<sup>27</sup> But it is hard to imagine that, in an age where for man-midwives even touching the female body was a matter of potential indelicacy,<sup>28</sup> the *Anatomy* would have been made accessible to women. Both McCulloch et al. and Jordanova use the word 'butchered' to describe the *Anatomy's* transected thighs,<sup>29</sup> and Jordanova has argued that some of its images are deeply misogynist (excising the clitoris, for instance, when such excision is unnecessary). The perspective from which the images are apprehended, she notes too, frequently foregrounds female genitalia in ways which imply a male gaze.<sup>30</sup> Even today, it is uncomfortable to view Hunter's Atlas in a public space such as a library reading room. The violence visited on the female body in the plates is so graphic and their representation of often mutilated pudenda so shocking; at the same time, the images are so large that no innocent passer-by can fail to notice them. More than one academic researching the *Anatomy* may have silently lamented to themselves an inability to issue trigger warnings in the Reading Room.

The audience for the *Anatomy* would, then, have been wealthy, educated, professional, and male: this is the answer to the question of *who* would be looking at the Atlas. But *how* would they have been likely to look at it? That is, in what order would their attention have been paid to word and image? What would they have looked at first? The illustrations? The titles of the illustrations? The explanatory notes? When we 'read' the Atlas online, in digital form, we look at the illustrations before we look at any text. In fact, many may look *only* at the illustrations, even though the notes to the illustrations precede them in the volume and even though the plates have titles. As the reader can see from Figure 1, the title to Plate XXVI is greatly inferior in size to the illustrations (the title is, moreover, in Latin). And this phenomenon — looking at an illustration before we read its explicatory text — is even more pronounced in the encounter with the plate in its original form, for the size, beauty, and virtuosity of the illustrations in the elephant folio arrest the vision of the beholder. The experience of looking at the volume is extraordinary, all-encompassing, and comparable to looking at, say, the Sistine chapel: the accompanying text matters, but it is the image that compels the eye, and that compels it first. Indeed, as Lorraine Daston and Peter Galison have argued, the primacy of picture over text is embedded in the very concept of an atlas, whose images are its *raison d'être*, and this is fundamental to the atlas's later status as 'manifesto for a new brand of scientific objectivity'.<sup>31</sup>

In the case of the *Anatomy*, then, looking takes precedence over reading, and with respect to Plate XXVI, this is particularly important. For although Plate XXVI, Fig I appears aggressively transparent in what it depicts, it is actually not transparent at all. In the present essay, I have already explained what the image represents, quoting from the explanatory text and the plate's title. If you look at the image first, however, before reading the explanatory notes, you are likely to mistake what it represents. Plate XXVI, Fig. I, shows the body opened in such a way that the pregnant uterus ought to be (and in most cases would be, were this a normal pregnancy) visible to the observer. But this is a retroverted and by now incarcerated uterus, and it is absent from where it ought rightly to appear, displaced behind an organ (the bladder) which is itself not where it ought to be. This is only really clear, however, when we read the image's glosses and look especially carefully

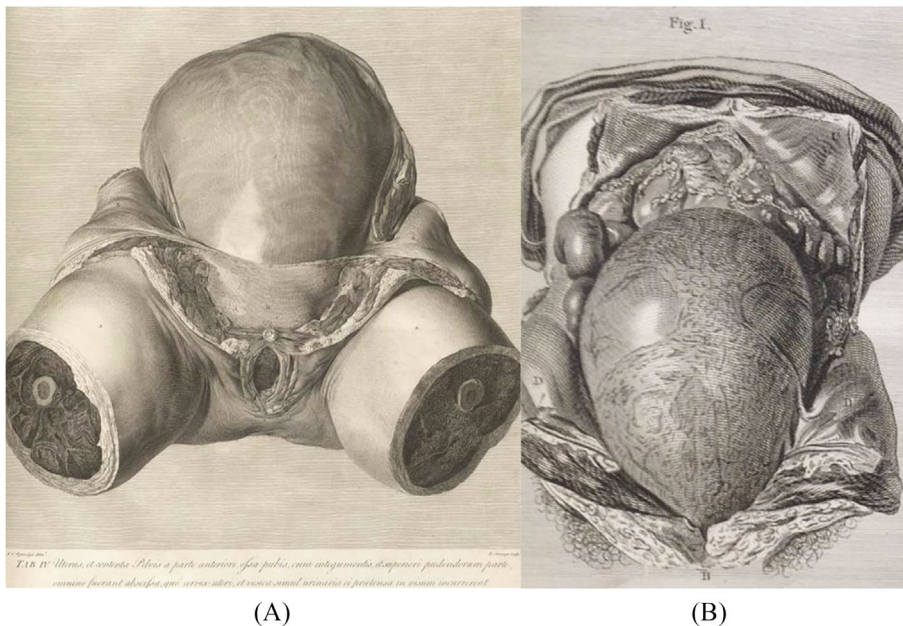


on the image for the 'E' which, those notes tell us, identifies '*the bladder so distended with bloody urine, that its fundus reached halfway between the navel and the pit of the stomach*'. In other words, the bladder depicted here is so grossly distended, so unimaginably swollen that it does not appear to be a bladder at all. Rather, it resembles a uterus, at term, and, consequently, is easily mistaken for one. It is worth noting here, incidentally, that Hunter's description of an organ '*so distended with bloody urine, that its fundus reached halfway between the navel and the pit [i.e. lower section] of the stomach*' might also describe the organ (organ A) in Cast 48.12 that McCulloch et al. think is the uterus: in Cast 48.12, organ A is distended with something apparently bloody at the top, and its fundus is situated halfway between the navel and the pit of the stomach. Reading the notes in the Atlas, in other words, may be as important to our understanding of the casts as it is to our understanding of the Plates.<sup>32</sup>

Insofar as understanding of Plate XXVI, Fig. I, is concerned, however, there is more than one reason for disorientation. This bladder is so intrinsically similar to a full-term uterus that the likelihood that it will be mistaken for one is strong even when Plate XXVI is scrutinised as an image on its own. But the plate is only viewed as a lone illustration outside the context of the other plates in the volume in an essay such as this one or on a page on a website. In its original situation in the pages of the atlas itself, Plate XXVI is encountered only after the reader (or 'viewer?') has turned all the pages of the volume one by one, encountering first the twenty-five plates preceding Plate XXVI. The *Anatomy* is not a book you can flip through or dip into: it is just too big to do that, and its organisation, moreover, is structured in the form of a kind of narrative, tracing pregnancy from full term back to five week's gestation (just post-conception). The unique materiality of the book thus structures its 'reader's' consumption of it, directing the path that the 'reader' takes through it. Hence, the reader already 'knows' what the pregnant uterus looks like when it is dis-covered ('found') in the woman's body by the anatomist, and so when the reader sees the image in Plate XXVI, Fig. I, he 'recognises' the image immediately, because it looks so similar to some of the images he has encountered before. There is a generic aspect to this too: 'the atlas', Daston and Galison remark, 'trains the eye to pick out certain kinds of objects as exemplary'.<sup>33</sup> The closest way to recapture this experience of similarity (although not, of course, the experience of looking at the images *in situ*) is to juxtapose Plate XXVI, Fig. I, with one of those preceding images, as in Figure 4.

And if similarity with previously encountered images generates potential for confusion, so too does the fact that all the other images on Plate XXVI, including those drawn to a larger scale in the centre of the page, are indeed of the uterus, not the bladder. The organisation of the figures on the page may also mislead, as it begins not where one might expect (top centre, larger image) but with the smaller scale image on the left: this too contributes to disorientation.

Plate XXVI, Fig. I, is in fact so misleading that at least two contemporary scholars of eighteenth-century obstetrical atlases have made precisely the error I am claiming the illustration seduces the viewer into making about it, mistaking the bladder (which it depicts) for the uterus (which it does not); the image is also wrongly glossed thus in a touring exhibition from one of the United Kingdom's premier galleries.<sup>34</sup> It is as if the womb here has hidden itself away, thwarting the penetrative surgical gaze. In other words, it has behaved in a way not unlike the manner in which the womb was held by pre-Enlightenment thinkers to act, wandering away from the place where it ought to reside.<sup>35</sup> The series of illustrations in Plate XXVI might then be read as tracing a narrative of the pursuit of the womb, modelling the labour and difficulty of discovering, both literally and figuratively, the secrets that that organ, left to its own devices, does not willingly or

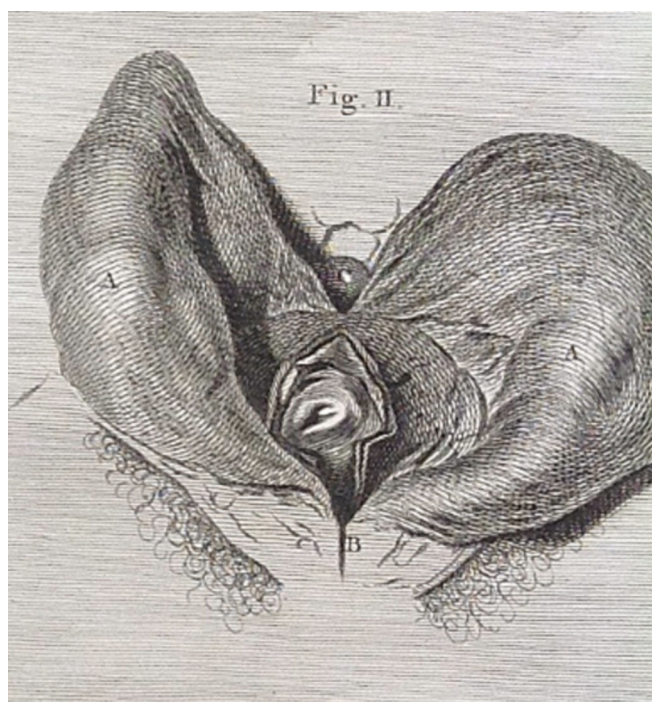


4. (A) Plate IV uterus; (B) Plate XXVI, Fig. I; bladder grossly distended.

easily reveal. For in a significant contrast to most of the other Plates in the *Anatomy* which represent the organ in a single, life-size drawing and underplay the passage of time taken in dissection, Plate XXVI tells a temporal story, foregrounding different moments of the dissection, and drawing attention to the successive stages which need to be performed before the organ and its contents can be fully revealed to view.

In Plate XXVI, Fig. II (Figure 5), further layers are peeled away: the obfuscating bladder has been 'cut down through its middle' by a vertical incision and is now draped, like a veil, over the ilium.<sup>36</sup> But this image and its attendant suggestion of revelation are once again strangely deceptive: Plate XXVI, Fig. II, as Plate XXVI, Fig. I, is again unlike many of the other *Anatomy* images in that it seems initially to be something other to what it actually is. What Plate XXVI, Fig. II, actually depicts is 'the situation of the os uteri', just above the pubic symphysis. But what it might well be misperceived as depicting is a representation not of the inside of the female body, but of the outside: it is remarkably similar to many diagrams of external female genitalia reproduced in textbooks and on websites today (as any Google search on images of external female genitalia will evidence).<sup>37</sup> Had this dissection been represented in the same manner and from the same point of view as many other *Anatomy* plates are (for instance, Plate IV (Figure 4) or Plate VI (Figure 2)), with the upper thighs and external genitalia depicted, this potential misperception would have been impossible, as the opening to the vaginal area would in that case have been visible, whether or not the surrounding tissue had been excised or dissected as it has been in Plate IV.<sup>38</sup>

But the image is not presented from this point of view: the legs and genitals are not depicted. The viewer is therefore more likely to be confused as to what the image actually represents. As the bladder tricks the eye in Plate XXVI, Fig. I, 'masquerading' as the uterus, so here the opening to the uterus 'masquerades' as the vulva, or opening to the vagina; again, whether by accident or design, this echoes the ways in which folk wisdoms of the uterus represented it as a deceptive, secretive organ.

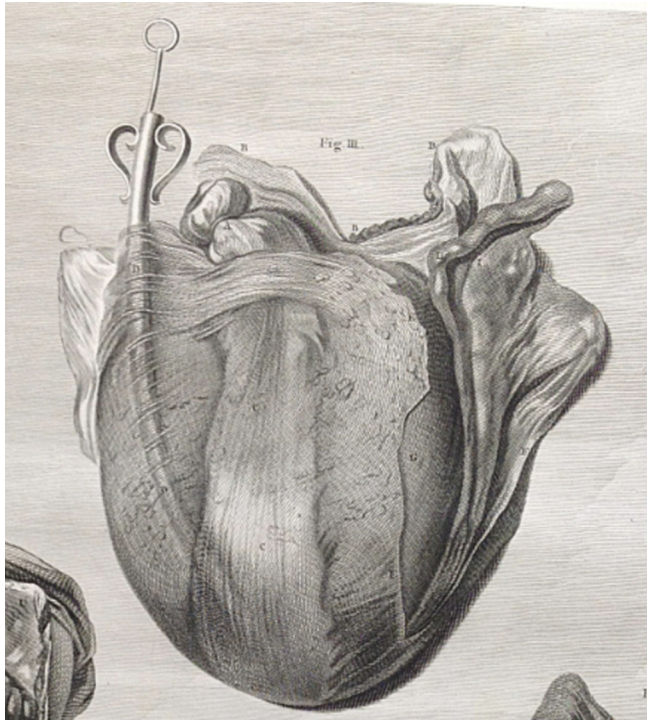


5. Plate XXVI, Fig. II

In this step towards mastery of the secrets concealed for so long within the female body, the visual parallel in Plate XXVI, Fig. II, invokes three kinds of penetration: clinical penetration of the female body with the scalpel, visual penetration with the male gaze, and sexual penetration. But although the entrance to the uterus is being gradually unveiled, first by the removal of skin and then by cutting through the obfuscating bladder, the uterus itself remains elusive. Its opening tantalises the desire to penetrate the organ even as it thwarts that desire: what we see is not the womb itself, merely the inviting but constricted opening to it. This is a very gendered illustration indeed, even, arguably, a voyeuristic one. And that these images elicit comparison with things other than themselves – the substitution within the imagination of the uterus for the bladder, or the vaginal opening for the uterine one – betrays a particular kind of tension. According to Hunter, science rejects the figurative, wanting to draw only the thing, that is, as Lyle Massey remarks Hunter explicitly prefers ‘the simple portrait, in which the object is represented exactly as seen’ to representations which are by contrast ‘conceived in the imagination’.<sup>39</sup> But these two images are like visual similes, or metaphors, in which we are repeatedly, if tacitly, invited to see the object in terms of its resemblance to something else, or even to experience it, albeit fleetingly, as that other thing.

This intrusion of the imagination is curtailed first by the explanatory text and then by the more dispassionate representation of Plate XXVII, Fig. III, where the organ (at last! — the uterus itself) is presented, although now it is seen from behind (Figure 6). The notes to Plate XXVII, Fig. III, make explicit the degree of retroversion of the organ and its catastrophic effect: the rectum, marked by the letters A and C, is shown to be ‘flattened’; the [fallopian] ‘tube’ ‘comes] up from the fundus uteri, which was turned down, into the lowest part of the cavity of the pelvis’. And unusually, the image incorporates an

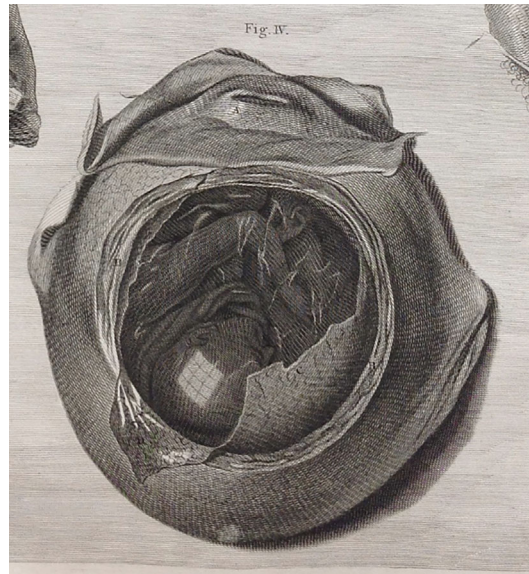




6. Plate XXVI, Fig. III, the uterus and introduced catheter

instrument, the catheter, which Hunter has 'introduced' between the uterus and peritoneum. The iconography of surgical instruments is embedded in the gendered competition over midwifery in the period, scientific instruments being accoutrements of man-midwives not female ones, as is illustrated in S. W. Fores' *Man-Midwifery Dissected*, the well-known and often reprinted cartoon which shows a figure of half male (with instruments and potions) and half female (domestic and homely).<sup>40</sup> As the anatomist moves closer to the object of his interest, science marks its capacity to control the organ: the introduced catheter serves as both a literal and symbolic marker of scientific mastery over the uterus, pinning down the hitherto errant womb.<sup>41</sup>

There is another pattern, too, marking itself in this series of illustrations. In Fig. I, we looked at the body; in Fig. II, we attempted to look into it; in Fig. III, we look at the organ; and in Fig. IV, we look into it. The two pairs of images repeat the same perspectival movement from observation to penetration, whose ultimate goal is definitively achieved in Fig. IV (Figure 7) where the surgeon's instruments, as well as his gaze, have at last gained ingress into the object previously so resistant to both. '*Uteri portione, ac Deciduae parte sublatis, Foetus per pellucidas membranas, Chorion nempe et Amnion conspicitur*' reads the Latin text which appears underneath the engraving; the English gloss to the image charts the passage from opacity to transparency, from obscurity to illumination, from the removal of the '*thick and opaque*' decidua [endometrium] through the transparency of the amnion, to the glimpse of the foetus within. At last, we have a window on the womb, a moment so significant that not only is this notion communicated through the perspective of the engraving, where the uterine contents are revealed as if the surface of the amnion through which we observe the foetus was itself a kind of glass, but also by the presence on



7. Plate XXVI, Fig. IV, the window on the womb

the engraving of a literal window: *'the liquor amnii was become bloody by transudation, when this figure was drawn,'* Hunter famously explains *'and the convex surface of the transparent membranes, reflected a distinct miniature picture, of the window which gave it light'*.

Lyly Massey and Roberta McGrath have both argued that this literal window on the womb functions as a temporal signifier, attesting to the reality which the engraving has traced. McGrath notes that the grid of the window may recall the grid of the image, suggesting not only the presence of the artist at the scene, but the artistic mechanisms of image production. Massey emphasises Hunter's insistence that he is governed solely by the desire to reproduce 'a simple portrait' of the object 'exactly as seen'.<sup>42</sup> To read the window in this way privileges Hunter's assumptions about the window's meaning over the artist's agency in constructing the image (as well as over the viewer's apprehension of it) and tacitly endorses Hunter's contention that the illustrations represent exactly that which was actually seen. But whatever Hunter believed the window denotes, it evokes meanings beyond a simple attestation of immediate reality. Like the convex mirror in the Arnolfini wedding portrait, it imposes on the figure of the object an insistence that that figure is marked both by the world in which it is situated and by the perspective of the subject who observes that object in the moment, who notices this window (which a different point of view might occlude or place elsewhere on the image) and whose choice to include it must have been an active one, for the reflection would not have remained stable even for the duration of a sketch, let alone for the time it would have taken to complete the image.

On the one hand then, the reflection of the window on the mirror of the membranes invokes an earlier aesthetic of art as mimesis, artistic virtue signalled in the artistic object's capacity to be 'true to nature'. On the other, it points forward to a new age wherein vision, light, and knowledge are associated with one another, and light becomes the dominant metaphor for human intellect, connected in particular with science.<sup>43</sup> It is, then, a dense and complex signifier. It is a kind of signature, an 'I was here', and perhaps a recognition that there is a world elsewhere whose reflections can obstruct vision as much as enable it, for the image of the light reflected by the window ironically constitutes the

only place in the figure where we cannot 'see' the foetal head: there is a peculiar paradox inhabiting the 'work' that this window does, in that the light it appears to shed actually impedes our vision of the object of inquiry. And in that occlusion of what it purports to illuminate, it proclaims its own importance both as an emblem of the Enlightenment and as an unintentional marker of the limits of Enlightenment objectivity. The window on the womb announces the moment that obstetrics sheds light into the organ which has functioned for centuries as the very topos of patriarchy's darkest other and emblematises the triumph of scientific knowledge over 'ignorance darker than [the] womb',<sup>44</sup> but in entering the realm of the symbolic, it acknowledges the fragility of the boundaries between a 'simple portrait of the object', the imagination of the subject that observes it, and the world in which it exists and appears to the observer.

### 3. *A Window in an Artist's Eye*

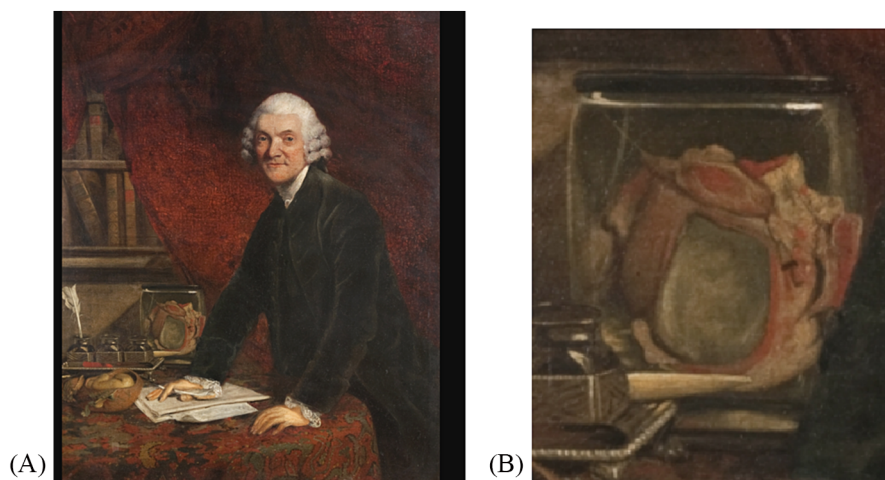
Plate XXVI may also be related to two other items owned by the Hunterian Museum in Glasgow. One is a specimen in a jar (Figure 8).

The other is Joshua Reynolds' posthumous portrait of Hunter, painted in about 1787<sup>45</sup> (Figure 9) which shows Hunter standing in his study with quill and paper, against a background of bookcases and various other objects, including a three-dimensional model of a gravid uterus which sits on the table in front of him, and a specimen jar, placed behind and to the right of his right hand. Nick Hopwood has noted that this specimen jar is 'hard to identify',<sup>46</sup> but I believe it highly likely that the jarred specimen in Reynolds' painting is a representation of the actual jarred specimen preserved in the Hunterian and that both



8. Jarred specimen of uterus and foetus, Hunterian Museum, Glasgow, GLAHM:I22709





9. (A) Joshua Reynolds, Portrait of William Hunter, Hunterian Museum, Glasgow, GLAHA:43793; (B) detail

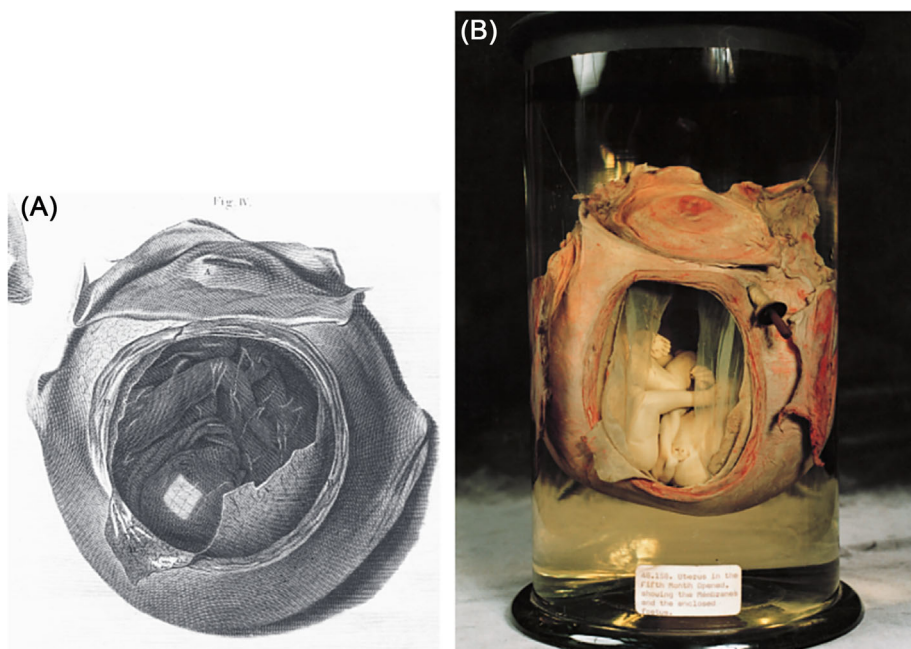


Fig. 7. 48.158 Uterus in the fifth month opened, showing the membranes and the enclosed foetus. a: Illustration; b: specimen.

# 10. Juxtaposition of Plate XXVI, Fig. IV, with jarred specimen, from McCulloch et al., 'The Specimen and Plates'

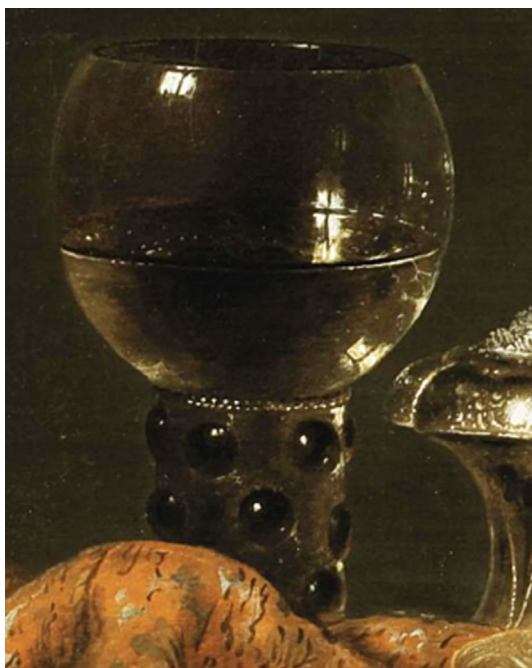
are the same organ and foetus as those depicted in Plate XXVI, Fig. IV. McCulloch, Russell, and McDonald have juxtaposed the Hunterian's jarred specimen and Plate XXVI, Fig. IV, to show their similarities (Figure 10).<sup>47</sup>

We cannot be completely sure of the common identity of all three: Hunter possessed about two hundred jarred specimens;<sup>48</sup> it is difficult to make out the contours of the jarred foetus in Reynolds' portrait; the position of the foetus in the jar itself (the real jar not the painted one) differs slightly from the position of the foetus in the plate. But there may be explanations for these differing positions, and there are additional reasons to believe that all relate to the same woman. Maggie Reilly, curator of Zoology at the Hunterian, has suggested that the different positions of the foetus in specimen jar and plate may be consequential on a re-jarring which she thinks may have occurred in the nineteenth century: she has pointed out that the extant jar is of a slightly different shape than that depicted in the portrait, which is squatter, and squarer.<sup>49</sup> The different shape of the incision in the plate (round) to the incisions in the portrait and specimen (oblong), she pointed out, might also be explained by the compression of the organ when it was jarred. Jar, plate, and portrait all seem to show the same flap of membrane in the lower left corner of the incision. And other, circumstantial, reasons suggest the two artistic images are almost certainly representations of the actual jarred specimen. All are about five months' gestation. And importantly, all are oriented with the cervix at the top. The standardised representation of anatomical position with upright body, feet slightly splayed, upper limbs held out from the body was well-established in the eighteenth century, and the *Anatomy's* illustrations largely conform to that standard, organs being represented when removed from the cadaver as they would appear in the upright body. Only once or twice in the *Anatomy* are organs depicted in unusual or inverted dispositions, and when they are, that is generally noted, as for instance in the note to Plate XXVIII, Fig. I, where Hunter explains that the uterus in that drawing has been deliberately 'turned upside down'. The convention of jarring specimens, moreover, demands that specimens be jarred in the same orientation as they appear in the upright body: they are represented as they were found.

We cannot know whether Hunter really had a jarred specimen on his desk, let alone know for sure which one it was. But it is not impossible that Reynolds might have been inspired to include this particular one in his portrait by van Rymsdyk's drawing in Plate XXVI, Fig. IV. For what might an artist's eye have made of van Rymsdyk's little window on the womb? Reynolds might have shared Hunter's sense that the reflection added to the realism of the image. But he might also have recognised, as might Van Rymsdyk himself, that the depiction of a reflected window on a glassy substance has a well-established iconographical history, especially notable in two types of sixteenth- and seventeenth-century Dutch painting. One of these is the *vanitas* still-life (as in, for instance, William Claesz, *Still Life with Nautilus Cup* (Figure 11) or Pieter Claesz 1628 *Vanitas Still Life with Portrait* (Figure 12)).<sup>50</sup>

The second is genre painting, and in particular genre paintings in which a uroscopist appears, such as Adrian Van Ostade's *The Water Doctor* (1685, Figure 13) who examines a flask (or 'matula') full of urine to determine what is going on within the body of his patient.<sup>51</sup> As Michael Stolberg explains, there are dozens of these paintings, which among other things indicate the ideal shape of the urine flask (round belly, long neck, about the size of a human bladder) and the manner in which the uroscopist should hold the matula up to the light of the window (a candle being not strong enough; direct sunlight too bright) in order properly to view its qualities so as to divine the cause of the patient's problem.<sup>52</sup>

The image of a reflected window is, then, already well established in the iconography of genres focussed, respectively, on mortality and health and is thus already densely saturated with meaning in two of the key conceptual fields of the *Anatomy*. But there is more. For one of the most frequent contexts in which the urine flask appears in



11. William Claesz, *Still Life with Nautilus Cup* (detail)



12. Pieter Claesz 1628 *Vanitas Still Life with Portrait* (detail)





13. Adrian Van Ostade, *The Water Doctor* (and detail)

seventeenth-century Dutch genre painting is that of diagnosis of pregnancy. Numerous paintings on this topic can be viewed in the Wellcome Trust's online collection: *A physician examining a urine-flask brought by a woman*, for example (after Caspar Netsche),<sup>53</sup> or *A philosopher in his study, consulted by an old woman to determine from a flask of urine whether the young woman accompanying her is pregnant* (Egbert van Heemskerck or one of his followers).<sup>54</sup> Stolberg claims that in almost all paintings of a person seeking advice from a uroscopist, the uroscopist is male and the seeker of advice female;<sup>55</sup> for him, these paintings illustrate one stage in the gendered history of male attempts to decipher clues to the secrets concealed within the mysterious female body. That 'motif' of the exposure of secret material hidden within the uterus is sometimes made manifest by the faint outline of a foetus swimming in the flask,<sup>56</sup> as in Godefridus Schalken's 1690 *The Doctor's Examination*, (Figure 14)<sup>57</sup> or the more recent (and post-Hunter) *A physician examining a urine specimen in which a faint figure of a baby is visible, a female patient is crying and being shouted at by her angry mother, indicating that she is pregnant*. Watercolour by I.T., 1826 (Figure 15),<sup>58</sup> both of which include on the surfaces of their matulae reflections of the windows by whose light the uroscopists read the contents of the flasks.

Stolberg points out that the ghostly foetuses floating in these urine flasks resemble earlier representations (Figure 16)<sup>59</sup> where the womb appears as a kind of flask-shaped receptacle, divorced from the female body,<sup>60</sup> and in which, as Jordanova puts it, the foetus floats around 'like a tenant', in stark contrast to Hunter's foetuses who '[possess] and fully [inhabit] their mothers' wombs'.<sup>61</sup>

In this respect, the figure of the uroscopist looks back rather than forward: an ancient practice, uroscopy began to fall out of favour in the Renaissance, though it lingered on into the eighteenth and even the nineteenth centuries. Yet the image of a reflected window links the older representations of the uroscopists' flasks with the newer, scientific drawing of the womb in Plate XXVI, Fig. IV, and it is this which points us towards the final resonances of Hunter's window on the womb. Plate XXVI, Fig. IV, is the culmination of a series of images which at first baffle the viewer's understanding and then lead his gaze via





14. Godefridus Schalken, 1690, *The Doctor's Examination*



15. *A physician examining a urine specimen in which a faint figure of a baby is visible, a female patient is crying and being shouted at by her angry mother, indicating that she is pregnant.*  
Watercolour by I.T., 1826

a non-linear and unexpected route, charting the stages in which the uterus, hidden, displaced, deceptive, and historically represented as reluctant to relinquish its secrets, is eventually forced by a new science to give them up, and key to the full interpretation of the story the plate tells is Van Rymdyk's window. Once we embed this image in its iconographical history, we can see that it functions not only as a sign of realism and scientific objectivity as Hunter maintains but also as a signifier of something else. Reprising the



16. Drawing of foetus in utero

epigraph with which I began this essay, we can read this window on the womb not just as one singular reflection of an actual window observed at a particular time and a particular place but as part of a 'train of lights': despite its claims to represent *only* the observed object, Plate XXVI, Fig. IV, in its inclusion of this window on the womb, gestures back to the cultures and histories in which it is embedded and with which it is in dialogue. Resonant with meaning in the iconographical language of Van Rymdyk's artistic predecessors, the reflection of the window, now transposed from the urine flask to the transparent membranes of the uterus itself, recalls an earlier, folk medicine in order to signal its displacement, embracing instead a new, Enlightenment, science, which no longer peers into a matula to determine the secrets of pregnancy and conception, but penetrates the body itself, and exposes its contents to the world. Yet fully to understand what Plate XXVI really shows, as we have seen over the course of this essay, is a process that must involve not only the observational eye, but also the reading of texts, as well as acknowledgement of the cultures and histories of representation of which this plate forms just one part. Art, interpretation, and textual language are as important as science, observation, and visual illustration fully to understand the world and comprehend its marvels. And while Hunter's window on the womb certainly represents a very significant moment in the long history of the desire to see into the interior of the woman's body, it does not, as my final illustration (Figure 17) illustrates, bring that history to an absolute conclusion.



17. Home page of UK private baby scan clinic

#### 4. NOTES

I am grateful to Nick Seager of the University of Keele for reading and commenting on earlier versions of this essay, and to Pensée Wu, Honorary Consultant Obstetrician and Maternal Medicine Subspecialist, Rachel Frigot, Lecturer in Anatomy, both at Keele, and Janette Allotey, chair of De Partu History of Midwifery and Childbirth group for their generosity in giving up their time to discuss Plate XXVI with me. Anne Varty, Professor Emerita at Royal Holloway, University of London, first sparked my interest in Hunter and I thank her for many conversations about the *Anatomy*. I am also grateful to the University of Glasgow for permitting reproductions of some of the images reproduced here and to Maggie Reilly of the Hunterian Museum and Art Gallery for showing me parts of the archive I might not otherwise have seen.

1. William Hunter, *Two Introductory Lectures, Delivered by Dr William Hunter, to His Last Course of Anatomical Lectures at His Theatre in Windmill Street: As They Were Left Corrected for the Press by Himself*, in *Dr Hunter's Introductory Lectures &c.* (No. 72, St Paul's Churchyard, London: Printed by order of the Trustees for J. Johnson, 1784), p. 4.

2. In this essay, I explore Plate XXVI, a jarred specimen, a plaster cast, and a Reynolds painting. The three latter items are held in Glasgow's Hunterian Museum: the jarred specimen is numbered GLAHM:122709, the cast GLAHM:125636, and the Reynolds painting GLAHA:43793.

3. William Hunter, *Anatomia uteri humani gravidi tabulis illustrata/The Anatomy of the Human Gravid Uterus, Exhibited in Figures* (Birmingham: Baskerville, 1774), unpagged. A high-quality online image of the complete volume can be found at <<https://collections.nlm.nih.gov/ext/dw/2491060R/PDF/2491060R.pdf>>.

4. Ibid., preface.
5. Ibid.
6. Ibid.
7. Ibid.
8. Ibid.

9. Ibid.

10. <<https://www.ncbi.nlm.nih.gov/medgen/452358>>

11. OED's first usage of 'incarcerated' to describe a trapped organ is 1783, but it is not in that example associated specifically with the uterus ('In'carcerated *adj.* imprisoned; *spec.* in *Pathology*, variously used of a strangulated, obstructed, or otherwise irreducible hernia and of a retained placenta'). For recent accounts of the condition, see Juan Manuel Pina Moreno and others, 'Importance of the Early Diagnosis of Incarcerated Gravid Uterus: Case Report and Systematic Review', *International Journal of Gynecology & Obstetrics*, 162.1 (2022), 1–9 <<https://doi.org/10.1002/ijgo.14615>>; Carnot Njutapvouli Ntafam, Bryce D. Beutler, and Robert D. Harris, 'Incarcerated Gravid Uterus: A Rare But Potentially Devastating Obstetric Complication', *Radiology Case Reports* 17.5 (March 2022), 1583–86 <<https://doi.org/10.1016/j.radcr.2022.02.034>>; Mariana Morais and others, 'Urinary Tract Obstruction in the Second Trimester: A Report of an Incarcerated Gravid Uterus' *BMJ Case Reports*, 15 (2022), e249986.

12. N.A. McCulloch, D. Russell, and S.W. McDonald, 'William Hunter's Casts of the Gravid Uterus at the University of Glasgow', *Clinical Anatomy: The Official Journal of the American Association of Clinical Anatomists and the British Association of Clinical Anatomists*, 14 (2001), 210–17 (p. 212) <<https://doi.org/10.1002/ca.1035>>.

13. Ibid., p. 213.

14. Ibid., p. 215.

15. Ibid., p. 213.

16. Stuart McDonald, 'William Hunter's Casts of the Gravid Uterus at the University of Glasgow', The Library of Trinity College Dublin <<https://www.youtube.com/watch?v=U63LugQNmzU>>.

17. Hunter, *Anatomy*, notes to Plate XXVI. This note reads: 'Between these two letters, B, C, the depending part of the bladder was raised up by a tumour which possessed the whole cavity of the pelvis: and here, a small crucial incision having been made, between, and a little before the end of the ureters, the os uteri was seen, as in this figure, situated behind, and a little higher than the upper part of the synthesis of the ossa pubis.' The note is confusing given that Plate XXVI does not show any 'tumour', and the note to Plate XXVI, Fig. III, describes that engraving as showing 'a back-view of the whole contents of the pelvis, consisting principally of the retroverted womb'. It is possible that Hunter is using the word 'tumour' in its sense of something that occupies space (OED definition 2) rather than its more contemporary sense of an 'abnormal or morbid swelling' occasioned by the growth of new tissue (OED definition 3) and that 'tumour' here means, simply, the uterus.

18. See Lin Zhuang and others, 'Acute Urinary Retention in the First and Second-Trimester of Pregnancy: Three Case Reports', *World Journal of Clinical Cases*, 9.13 (May 2021), 3130–39 <<https://doi.org/10.12998/wjcc.v9.i13.3130>>. The search terms Zhuang et al. used were as follows: 'AUR in/ during/and/pregnancy', 'retroverted gravid uterus, incarcerated gravid uterus', 'uterine incarceration', 'impacted gravid uterus', 'urinary retention in pregnancy and infection', and 'urinary tract infection in pregnancy'.

19. William Hunter, *Anatomy*, unpagged.

20. Ludmilla Jordanova, 'Gender, Generation and Science: William Hunter's Obstetric Atlas', in W.F. Bynum and Roy Porter, *William Hunter and the Eighteenth-Century Medical World* (Cambridge: Cambridge University Press, 1985), pp. 385–412 (p. 385).

21. Hunter, preface to the *Anatomy*, quoted by Jordanova, *ibid.*, p. 393.

22. Jordanova, *ibid.*, p. 399.

23. Meredith Gamer, 'Scalpel to Burin: A Material History of William Hunter's *Anatomy of the Human Gravid Uterus*', in *William Hunter and the Anatomy of the Modern Museum*, ed. by Mungo Campbell and Nathan Flis (New Haven: Yale University Press, 2018), pp. 108–25 (p. 119). As



Mungo Campbell observes in his introductory essay in the same volume, Hunter's assertion that the imagination is a counter to proper empirical observation is belied by the fact that pursuit of his science demanded the significant intervention of artists and craftsman, p. 35. See also Janet Allotey's observation, quoted in Helen King, 'History without Historians? Medical History and the Internet', *Social History of Medicine*, 25.1 (2012), 212–21 (pp. 216–17).

24. Jordanova, p. 412.

25. *Ibid.*, pp. 399–400.

26. Jordanova, *Sexual Visions*, p. 157; Gamer, p. 115; see also Alicia Hughes, 'Authorship, Image-Making and Excess: William Hunter's *Anatomi uteri humani gravidi tabulis illustrate* (1774)', *Journal for Eighteenth-Century Studies*, 46.2 (2023), 214–37. Hughes suggests Latin text may have made the volume more marketable in Europe (p. 217).

27. James Raven, 'From Promotion to Proscription: Arrangements for Reading and Eighteenth-Century Libraries', in *The Practice and Representation of Reading in England*, ed. by James Raven, Helen Small, and Naomi Tadmor (Cambridge: Cambridge University Press, 1996), pp. 175–201 (p. 188).

28. See, for example, Adrian Wilson, *The Making of Man-Midwifery: Childbirth in England 1660–1770* (Cambridge Mass: Harvard University Press, 1995), who notes that 'delicacy' dictated minimal use even of hands, let alone instruments such as forceps (p. 177), and Ornella Moscucci, *The Science of Women: Gynaecology and Gender in England 1800–1929* (Cambridge: Cambridge University Press, 1990), p. 49.

29. McCulloch and others, p. 211; Jordanova, *Sexual Visions*, p. 184. Jordanova notes that 'the human flesh of these anatomical images is, like meat, somewhere between the full vitality of life and the total decay of death'. See also Lyle Massey, 'On Waxes and Wombs: Eighteenth Century Representations of the Gravid Uterus' in *Ephemeral Bodies: Wax Sculpture and the Human Figure*, ed. by Roberta Panzanelli (Los Angeles, California: Getty Research Institute, 2008), pp. 83–106.

30. Ludmilla Jordanova, *Sexual Visions: Images of Gender in Science and Medicine Between the Eighteenth and Twentieth Centuries* (Hemel Hempstead: Harvester Wheatsheaf, 1989), p. 61.

31. Lorraine Daston and Peter Galison, 'The Image of Objectivity', *Representations*, 40 (Fall 1992), 81–128 (pp. 81 and 86).

32. McCulloch and others never refer to the *Anatomy's* notes when they consider relations between casts and plates ('William Hunter's Casts'). Perhaps they looked at the visual images at the expense of reading the notes, in the way I am suggesting the *Anatomy* is habitually 'read'.

33. Daston and Galison, 'Image of Objectivity', p. 85.

34. Lyle Massey in 'Pregnancy and Pathology: Picturing Childbirth in Eighteenth-Century Obstetric Atlases', *Art Bulletin*, 88.1 (March 2005), 75–91 (pp. 83–84), discusses Plate XXVI, Fig. I, and van Rymsdyk's accompanying chalk drawing, misreading in both cases the bladder for the uterus. The bladder is also mistaken for the uterus in *The Quick and the Dead: Artists and Anatomy* where a reproduction of the chalk drawing from which Plate XXVI, Fig. I, is taken is entitled 'front view of the womb' — Deanna Petheridge and Ludmilla Jordanova, *The Quick and the Dead: Artists and Anatomy* (London and Berkeley: Hayward Gallery and University of California Press, 1997), p. 84. This volume derives from a national touring exhibition (Royal College of Art London; Mead Gallery Warwick Arts Centre; Leeds City Art Gallery). I have informally consulted an anatomist and an obstetrician about the image to ask whether, viewed without knowledge of the textual gloss, they think the organ looks more like a uterus than a bladder; both thought that in the absence of contextual information (such as the fact that this is the dissection of a woman who is five months pregnant), the image presents at first sight as a uterus at term.

35. The theory of the 'wandering womb' has a long history. William Smellie quotes Plato: 'the matrix of women is also an animal ravenous after generation, which being baulked of its desire for any length of time, is so enraged at the disappointment and delay that it wanders up and down

through the body, obstructing the circulation, stopping the breath, producing suffocations and all manner of diseases.' William Smellie, quoting Plato's *Timaeus* in *A Treatise on the Theory and Practice of Midwifery in Three Volumes. A New Edition. To Which is Now Added, a Set of Anatomical Tables With Explanations* (Holborn, London: Printed for W. Strahan and W. Fox, and S. Hayes, 1779), I, p. xii. For overviews, see Clarissa W. Atkinson, *The Oldest Vocation: Christian Motherhood in the Medieval West* (Ithaca: Cornell University Press, 1991), pp. 23–63, and John P. Wright, 'Hysteria and Mechanical Man', *Journal of the History of Ideas*, 41.2 (1980), 233–47. For an account which doubts Plato's belief in the wandering womb, see Mark J. Adair, 'Plato's View of the "Wandering Uterus"', *The Classical Journal*, 91.2 (1995), 153–63. The most extensive early modern account was Edward Jordan's *A Briefe Discourse of a Disease Called the Suffocation of the Mother* (London, Printed by John Windet, dwelling at the sign of the Cross Keys at Powel's Wharfe, 1603). It is worth noting that Plate XXVI illustrates the consequences of an instance where the womb really may have moved: retroversion is sometimes congenital but sometimes caused by pregnancy tilting the womb from its normal orientation. The womb can also prolapse: perhaps, ancient beliefs in wandering wombs are less irrational than we have held them to be: perhaps they were trying to make sense of actual observed phenomena.

36. See Jordanova on gendered implications of veils, which simultaneously 'reveal and conceal', whose 'removal gives rise to knowledge at the same time as their presence preserves decency', whose presence and utilisation implies Science is *de facto* a masculine viewer. *Sexual Visions*, Chapter 5, 'Nature Unveiling Before Science', pp. 87–110.

37. For instance, the photograph in Rosanna Hartline, 'Female Reproductive System (External)' <[https://bio.libretexts.org/Courses/West\\_Hills\\_College\\_-\\_Lemoore/Human\\_Anatomy\\_Laboratory\\_Manual\\_%28Hartline%29/22%3A\\_Reproductive\\_Systems/22.03%3A\\_Female\\_Reproductive\\_System\\_%28External%29](https://bio.libretexts.org/Courses/West_Hills_College_-_Lemoore/Human_Anatomy_Laboratory_Manual_%28Hartline%29/22%3A_Reproductive_Systems/22.03%3A_Female_Reproductive_System_%28External%29)>.

38. On point of view in the Plates, and the frequent positioning of the viewer's gaze looking up 'into' the female body from between the woman's legs, often through her genitals or the place where her genitals once were, see Jordanova, *Sexual Visions*, p. 185.

39. Hunter, preface, p. 2, quoted by Massey, 'Pregnancy and Pathology', p. 80.

40. On forceps, see Massey, 'Pregnancy and Pathology', p. 71. Adrian Wilson, 'William Hunter and the Varieties of Man-Midwifery', in Bynum and Porter, pp. 343–83. For discussions of the gendered iconography of the Fores cartoon, see Ornella Moscucci, *The Science of Woman: Gynaecology and Gender in England 1800–1929* (Cambridge: Cambridge University Press, 1990); Wilson, *The Making of Man-Midwifery*, pp. 4–5; Ludmilla Jordanova, *Nature Displayed: Gender, Science and Medicine 1760–1820* (London: Longman, 1999), pp. 24–25; Roberta McGrath, *Seeing Her Sex: Medical Archives and the Female Body* (Manchester: Manchester University Press, 2002), pp. 32–34; Lisa Forman Cody, *Birthing the Nation: Sex, Science and the Conceptions of Eighteenth-Century Britons* (Oxford: Oxford University Press, 2005), p. 206. Jean Donnison, in *Midwives and Medical Men: A History of Inter-professional Rivalries and Women's Rights* (London: Heinemann, 1977), p. 49, relates the opinion of doctors such as Dr Samuel Merriman that women, unfit for scientific and mechanical employment, could not be trusted with obstetrical instruments. Hunter himself was restrained in his use of the forceps, believing they could do great damage.

41. In this respect, the iconography of the catheter invokes a longstanding, Baconian discourse of masculine science subduing and pinning down feminine or feminised 'Nature'. See Evelyn Fox Keller, *Reflections on Science and Gender* (New Haven: Yale University Press, 1988); Sandra Harding, *The Science Question in Feminism* (Ithaca: Cornell University Press, 1986); Carolyn Merchant, *The Death of Nature: Woman, Ecology and the Scientific Revolution* (San Francisco: Harper and Row, 1983).

42. McGrath, *Seeing Her Sex: Medical Archives and the Female Body* (Manchester: Manchester University Press, 2002), pp. 89–90; Massey, 'Pregnancy and Pathology', p. 81.

43. On the transformation of the metaphor of the mirror to that of the lamp, see M.H. Abrams, *The Mirror and the Lamp: Romantic Theory and the Critical Tradition* (Oxford: Oxford University Press, 1953). On particular connections in the Enlightenment between metaphors of light and Science, see Jordanova, *Nature Displayed*, p. 396.
44. The phrase is Leantio's in Middleton's *Women Beware Women*, ed. by J.R. Mulryne (Manchester: Manchester University Press, 2007), 4.1.104.
45. <[https://commons.wikimedia.org/wiki/File:Joshua\\_Reynolds\\_%281723-1792%29\\_-\\_William\\_Hunter\\_%281718%E2%80%931783%29\\_-\\_GLAHA-43793\\_-\\_Hunterian\\_Museum\\_and\\_Art\\_Gallery.jpg](https://commons.wikimedia.org/wiki/File:Joshua_Reynolds_%281723-1792%29_-_William_Hunter_%281718%E2%80%931783%29_-_GLAHA-43793_-_Hunterian_Museum_and_Art_Gallery.jpg)>.
46. Nick Hopwood, 'A Marble Embryo. Meanings of a Portrait from 1900'. *History Workshop Journal*, 73.1 (April 2012), 5–36 <<https://doi.org/10.1093/hwj/dbq051>> [Accessed 24 October 2018].
47. N.A. McCulloch, D. Russell, and S.W. McDonald, 'William Hunter's *Gravid Uterus*: The Specimens and Plates', *Clinical Anatomy*, 15.4 (2002), 241–315 (p. 259).
48. Gamer, p. 116.
49. In a private conversation.
50. <[https://commons.wikimedia.org/wiki/File:1628\\_Claesz\\_Vanitas-Stilleben\\_mit\\_Selbstbildnis\\_anagoria.JPG](https://commons.wikimedia.org/wiki/File:1628_Claesz_Vanitas-Stilleben_mit_Selbstbildnis_anagoria.JPG)>.
51. <[https://commons.wikimedia.org/wiki/File:Painting:\\_The\\_Water-Doctor,\\_1685\\_Wellcome\\_L0025095.jpg](https://commons.wikimedia.org/wiki/File:Painting:_The_Water-Doctor,_1685_Wellcome_L0025095.jpg)>.
52. Michael Stolberg, *Uroscopy in Early Modern Europe*, trans. by Logan Kennedy and Leonhard Unglaub (Aldershot: Ashgate, 2015), p. 47.
53. *A Physician Examining a Urine-Flask Brought by a Woman*, after Caspar Netsche, 1635 or 1636–1684. <<https://wellcomecollection.org/works/dquzud9h/items>>.
54. Egbert van Heemskerck or one of his followers, *A Philosopher in His Study, Consulted by an Old Woman to Determine From a Flask of Urine Whether the Young Woman Accompanying Her is Pregnant*, c. 1680/1799 <<https://wellcomecollection.org/works/w9nm64m4/images?id=hrymtss2>>.
55. Stolberg, p. 117.
56. Flask babies may reference the late seventeenth/early eighteenth century ovist versus animalculist debate, itself a fundamentally gendered argument, ovists holding that the germ cells of all future generations had been embedded by God in Eve, animalculists maintaining that they were contained in Adam. For an introduction to this debate and the theory of homunculi, see Louis A Landa, 'The Shandean Homunculus: The Background of Sterne's "Little Gentleman"', in *Restoration and Eighteenth-Century Literature: Essays in Honor of Alan Dugald McKillop*, ed. by Carroll Camden (Chicago: Chicago University Press, 1963), pp. 49–68, esp. 51–55. See also Angus McLaren, 'The Pleasures of Procreation: Traditional and Biomedical Theories of Conception', in Bynum and Porter, 323–41, esp. 333–37; Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity from Antiquity to the Present* (London: Fontana, 1999), pp. 225–27.
57. Godefridus Schalken, *The Doctor's Examination*, 1690. <<https://www.mauritshuis.nl/nl-nl/verdiep/de-collectie/kunstwerken/het-onderzoek-van-de-dokter-161/23/10/18>>.
58. Figure XIII: *A physician examining a urine specimen in which a faint figure of a baby is visible, a female patient is crying and being shouted at by her angry mother, indicating that she is pregnant*. Watercolour by I.T., 1826 <<https://wellcomecollection.org/works/epdd3r3s/images?id=ce458csq>>.
59. EPB/7091/B: Eucharius Rösslin, *Der schwanneren Frawen und Hebammen Rosengarte* (Augsburg: Heinrich Steiner, 1529), leaf C4v. Wellcome Images L0004292 reproduced in Rebecca Whitely, "'The birth of mankind" and the revolutionary image of the foetus in utero' <<https://wayback.archive-it.org/16107/20210314043538/http://blog.wellcomelibrary.org/2015/06/the-birth-of-mankind-and-the-revolutionary-image-of-the-foetus-in-utero/>>.

60. Stolberg, p. 45.

61. Jordanova, *Sexual Visions*, p. 184.

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