# Making SEX

BODY AND GENDER FROM THE GREEKS TO FREUE

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a body that did not itself mark these distinctions clearly. Order and hierarchy were imposed upon it from the outside. The one-sex body, because it was construed as illustrative rather than determinant, could therefore register and absorb any number of shifts in the axes and valuations of difference. Historically, differentiations of gender preceded differentiations of sex.

The second explanation for the longevity of the one-sex model links sex to power. In a public world that was overwhelmingly male, the one-sex model displayed what was already massively evident in culture more generally: man is the measure of all things, and woman does not exist as an ontologically distinct category. Not all males are masculine, potent, honorable, or hold power, and some women exceed some men in each of these categories. But the standard of the human body and its representations is the male body.

### THREE

## New Science, One Flesh

The books contain pictures of all parts inserted into the context of the narrative, so that the dissected body is placed, so to speak, before the eyes of those studying the works of nature.

VESALIUS, 1543

Across a millennial chasm that saw the fall of Rome and the rise of Christianity, Galen spoke easily, in various vernacular languages, to the artisans and merchants, the midwives and barber surgeons, of Renaissance and Reformation Europe. Various Latin translations, compendia, and Arabic intermediaries transmitted the one-sex body of antiquity into the age of print. "La matrice de la femme," writes Guillaume Bouchet in one late sixteenth-century potpourri of learning, "n'est que la bourse et verge renversée de l'homme" (The matrix of the woman is nothing but the scrotum and penis of the man inverted). A German doctor of no great fame pronounced, "Wo du nun dise Mutter sampt iren anhengen besichtigst, So vergleich sie sich mit allem dem Mannlichen glied, allein das diese ausserhalb das Weiblich aber inwendig ist" (Viewing the uterus along with its appendages, it corresponds in every respect to the male member except that the latter is outside and the former inside). Or "the likeness of it [the womb] is as it were a yarde reversed or turned inward, having testicles likewise," as Henry VIII's chief surgeon says in a matter-of-fact way. There was still in the sixteenth century, as there had been in classical antiquity, only one canonical body and that body was male.1

The various vernaculars also replicated in new voices the Latin and Greek linguistic complex of connections between organs to which we, in our medical texts, would give precise and distinctive names. *Bourse*, for example, Bouchet's word for scrotum, referred not only to a purse or bag but also to a place where merchants and bankers assemble. As bag, purse,

or sack it bridges male and female bodies handily. "Purse" could mean both scrotum and uterus in Renaissance English.2 An anonymous German text declares in a commonplace simile, "the uterus is a tightly sealed vessel, similar to a coin purse (Seckel)."3 The womb "shuts like a purse (bursa)" after it draws up the male and female ejaculate, says the Pseudo-Albertus Magnus in his immensely popular and much translated De secretis mulierum.4 Scrotum also links up with womb through its more social, economic meaning. Matrice, Bouchet's term for uterus, as well as the English variant matrix, had the sense of a place where something is produced or developed, as in "mountains are the matrices of gold." There is a suggestion here of the common trope of the uterus as the most remarkable, miraculously generative organ of the body. The "matrice" is thus the place where a new life is produced while "bourse" is a place where a different, and culturally less valued, kind of productivity, an exchange, takes place. Two different kinds of bags, two different ways of making and keeping money, link organs that today have no common resonances.

The body's pleasures also remained as intimately bound with generation as they had been for Hippocrates. "Much delight accompanies the ejection of the seed, by breaking forth of the swelling spirit, and the stiffness of Nerves," says the most ubiquitous sex guide in the western tradition. Through a physiology shared with man, woman "suffers both wayes," the sixteenth-century physician Lemnius points out, and feels a double pleasure: "she drawes forth the man's seed, and casts her own with it," and therefore "takes more delight, and is more recreated by it."

But amid these echoes of antiquity, a new and self-consciously revisionist science was aggressively exploring the body. In 1559, for example, Columbus—not Christopher but Renaldus—claims to have discovered the clitoris. He tell his "most gentle reader" that this is "preeminently the seat of woman's delight." Like a penis, "if you touch it, you will find it rendered a little harder and oblong to such a degree that it shows itself as a sort of male member." Conquistador in an unknown land, Columbus stakes his claim: "Since no one has discerned these projections and their workings, if it is permissible to give names to things discovered by me, it should be called the love or sweetness of Venus." Like Adam, he felt himself entitled to name what he found in nature: a female penis.

Columbus' account is significant on two levels. First it assumes that looking and touching will reveal radically new truths about the body. The discoverer of the clitoris had nothing but contempt for his predecessors,

who either did not base their claims on dissection at all or failed to report accurately and courageously what they had seen. Mondino de' Luzzi (1275–1326), for example, the premier medieval anatomist, was made the butt of heavy irony for his perfectly commonplace though relatively novel claim that the uterus had seven cells; he "might as well have called them the porches or bedrooms." Columbus' colleagues, meanwhile, attacked him with equal vigor. Gabriel Fallopius, his successor at Padua, insisted that he—Fallopius—saw the clitoris first and that everyone else was a plagiarist. Kaspar Bartholin, the distinguished seventeenth-century anatomist from Copenhagen, argued in turn that both Fallopius and Columbus were being vainglorious in claiming the "invention or first Observation of this Part," since the clitoris had been known to everyone since the second century. 10

The somewhat silly but complicated debate around who discovered the clitoris is much less interesting than the fact that all of the protagonists shared the assumption that, whoever he might be, someone could claim to have done so on the basis of looking at and dissecting the human body. A militant empiricism pervades the rhetoric of Renaissance anatomists.

Columbus' discovery would also seem to be fatal, or at the very least threatening, to the ancient representations of the one-sex body. Within the constraints of common sense, if not logical consistency, women cannot have a full-size penis within (the vagina) and a small homologue of the penis without (the clitoris). But Renaissance writers drew no such inference. Jane Sharp, a well-informed seventeenth-century English midwife, asserts on one page that the vagina "which is the passage for the yard, resembleth it turned inward" and, with no apparent embarrassment, reports two pages later that the clitoris is the female penis: "it will stand and fall as the yard doth and makes women lustful and take delight in copulation."11 Perhaps these positions can be reconciled in that the vagina only resembles the penis whereas the clitoris actually is one; both maintain the one-sex model's insistence on the male as the standard. But Sharp had no interest in the question. Two seemingly contradictory accounts coexisted quite neatly, and the old isomorphism dwelt in peace with the strange new homologue from another conceptual galaxy.

Just when Columbus threatens to offer a new understanding of sexual difference, his text returns to the old track and the old tensions. Woman disappears, whether the vagina or the clitoris is construed as the female penis. Sexual delight continues to flow from the homoerotic rubbing of

like on like; pleasure is decoupled from the will so that her mind does not matter. "If you rub it [the clitoris] vigorously with a penis, or touch it even with a little finger, semen swifter than air flies this way and that on account of the pleasure, even with them [women] unwilling." There remains but one sex, or in any case only one kind of body.

The discovery of the clitoris and its easy absorption by the one-sex model raises the central question of this chapter. Why did competent observers, self-consciously committed to new canons of accuracy and naturalistic illustration, continue to think of reproductive anatomy and physiology in a manner that is manifestly wrong and egregiously counterintuitive to the modern sensibility? In the first place, much of what is at stake is not empirically decidable. Whether the clitoris or the vagina is a female penis, or whether women have a penis at all, or whether it matters, are not questions that further research could, in principle, answer. The history of anatomy during the Renaissance suggests that the anatomical representation of male and female is dependent on the cultural politics of representation and illusion, not on evidence about organs, ducts, or blood vessels. No image, verbal or visual, of "the facts of sexual difference" exists independently of prior claims about the meaning of such distinctions.<sup>13</sup>

But there are empirically decidable contentions in Columbus' report and in the one-sex model generally. The clitoris (dulcedo amoris) he rightly says is the primary locus of venereal pleasure in women. On the other hand, he maintains—wrongly from a modern perspective—that semen, which looks very much like the male's, flies this way and that when it is stimulated and, were it not to do so, women would not conceive. <sup>14</sup> These are meant to be verifiable claims with the body as proof text:

You who happen to read these laboriously produced anatomical studies of mine know that, without these protuberances [the clitoris] which I have faithfully described to you earlier, women would neither experience delight in venereal embraces nor conceive any fetuses.

This is truly noteworthy: testes are produced in women so that they may produce semen. Indeed I myself can bear witness that, in the dissection of female testicles, I have sometimes found semen that is white and thick and very well concocted, as all the spectators have acknowledged with one voice.<sup>15</sup>

The specific claim that female orgasm was necessary for conception was, moreover, known to be vulnerable since antiquity.

Aristotle had pointed out that women in some circumstances could conceive "without experiencing the pleasure usual in such intercourse" and that conversely "the two sexes could reach their goal together" and the woman still not conceive.16 Giles of Rome, a thirteenth-century scholar who was known even in that age of prolixity as "the verbose doctor," had argued at great length, on theoretical grounds, that the so-called female seed was essentially irrelevant to conception and that female orgasm was still more irrelevant. But he also offered empirical evidence of various sorts. Women purportedly told him that they had conceived without emission and presumably orgasm. Moreover, a clinical report by no less an authority than Averroës (ibn-Rushd, 1126-1198), the Arabic philosopher and author of a major medical encyclopedia, tells of a woman who became pregnant from semen floating in a warm bath. If, as this case is meant to show, penetration itself is only incidental to fertilization, how much more irrelevant still is female sexual pleasure? 17 And two thousand years after Aristotle, William Harvey repeated the old argument (though based, he says, on the evidence of "an infinite number" or at least "not a few" cases): the "violent shaking and dissolution and spilling of humours" which frequently occurs "in women in the ecstasy of coitus" is not required for the real work of making babies.18

It is also hard to believe that the consumers of vernacular medical literature—a wide swath of the literate public and those who might listen to them—needed the weight of tradition and learning to tell them that female orgasm did not always accompany conception. <sup>19</sup> Modern studies are quite consistent in showing that one third and perhaps as many as one half of women never have orgasm from intercourse alone, and certainly nowhere near such a proportion were infertile. <sup>20</sup> Maybe a higher percentage were orgasmic in an age in which what is now called "fore-play" was taken as a requisite prelude to procreative intercourse, but a great deal of everyday experience must nevertheless have belied the purported link between female orgasm and conception. Yet neither the evidence of the learned nor the actual experiences of marriage overturned the old model of bodies and pleasures.

Of course, some might say: those who knew—women—did not write and those who wrote—men—did not know. But this is not so telling a point. In the first place, the Hippocratic corpus and book 10 of Aristotle's History of Animals, for example, may well represent the voices of women, and other works give accounts much like these. Moreover, when women beginning in the Renaissance did publish on midwifery and reproduc-

tion, their views regarding the physiology of generation were entirely mainstream: Louise Bourgeois, Jane Sharp, and Madame de la Marche all propounded the common wisdom linking pleasure, orgasm, and generation. The occasional first-person account by women addressing these intimate matters, such as the remarkable autobiography of a seventeenth-century Dutch clergyman's wife, Isabella De Moerloose, further suggests that the literature I am citing reports commonly held beliefs. Despite the growing tendency of the learned tradition to distance itself from "popular errors," my sense is that doctors, lay writers, and men and women in their beds shared a broad view on how the body worked in matters of reproduction. The sort of highly politicized split between women's views of their bodies and that of a medical establishment would have to await the consolidation of a science-based profession beginning in the eighteenth, but not fully in place until the late nineteenth, century.

Finally, there is modern evidence to suggest that women in the past might well have had no more or no less understanding of the timing and physiology of conception than did their doctors. Certainly, if advice columns are any indication, the view that orgasm is necessary for conception lives on today; physicians, both male and female, who in the early twentieth century attempted through interviews to determine the timing of ovulation during the menstrual cycle, failed to come up with consistent answers. And anthropological evidence suggests that living women whom one can interrogate actually hold views similar to those propounded by Renaissance midwifery and health guides. Thus an informant in Suye Mura told a Japanese-speaking woman anthropologist that "she [thought] that if a woman does not reach climax, she cannot conceive because her womb remains shut."24 The Samo of Burkino Faso give an account of semen-"sex water" discharged by both men and women-blood, milk, and menstruation that is eerily like the one that dominated the western tradition.<sup>25</sup>

None of this argues against the fact that there must have been much local wisdom and a florid oral tradition among women in early modern Europe, which printed sources, no matter how popular, and modern evidence, no matter how wide-ranging, can never recapture. They are forever lost to historians. Nor does it prove that ordinary people, men or women, thought very much in terms of the anatomical isomorphisms of the one-sex model. Nevertheless, it does suggest that the sort of literature

on which I base these chapters—the only sort we are ever likely to have—shares the same conceptual universe of Renaissance people and even of "those who knew (women)," even if it does not speak in their voices.

Evidence bearing on the empirically testable claims of the one-sex model failed to dislodge them not because such data were silenced but because these claims were part of a far more general, intricate, and many-stranded conception of the body which no observations, singly or in combination, could directly falsify. Willard Quine suggests why this should be the case on philosophical grounds. The totality of our beliefs "is a man-made fabric which impinges on experience only along the edges." So-called knowledge, switching metaphors,

is like a field [which] is so underdetermined by its boundary conditions, experience, that there is much latitude as to what statements to reevaluate in the light of any contrary experience. No particular experiences are linked with any particular statements in the interior of the field.<sup>26</sup>

The ancient account of bodies and pleasure was so deeply enmeshed in the skeins of Renaissance medical and physiological theory, in both its high and its more popular incarnations, and so bound up with a political and cultural order, that it escaped entirely any logically determining contact with the boundaries of experience or, indeed, any explicit testing at all.<sup>27</sup>

This is by now so standard an argument in the history and philosophy of science that it even has a name: the Quine-Duhem thesis. But it is worth making again for two reasons. The empirically testable claims of the old model, which represent and are represented by the transcendental claim that there exists but one sex, are so farfetched to the modern scientific imagination that it takes a strenuous effort to understand how reasonable people could ever have held them. It is an effort worth making, if only to unsettle the stability of our own constructions of sexual difference by exposing the props of another view and by showing that the differences that make a difference are historically determined.

Second, by making manifest the web of knowledge and rhetoric that supported the one-sex model, I am setting the stage for its challengers in the eighteenth and nineteenth centuries. If its stability can be attributed to its imbrication in other discursive modes, its collapse will not need to be explained by a single dramatic discovery or even by major social upheavals. Instead, the construction of the two-sex body can then be viewed

in the myriad new, and new kinds of, connections between, and within, sexual and other discourses.

#### The practices of anatomy

"When you meet a human being," said Freud in his comments on "Femininity" in New Introductory Lectures, "the first distinction you make is 'male or female?' and you are accustomed to making the distinction with unhesitating certainty." Anatomical science at first seems to support this certainty but upon further reflections turns out to be far less authoritative: "what constitutes masculinity or femininity is an unknown characteristic anatomy cannot lay hold of." The more Renaissance anatomists dissected, looked into, and visually represented the female body, the more powerfully and convincingly they saw it to be a version of the male's.

The body speaks itself. In large measure the new science greatly strengthened the old model simply because it proclaimed so vigorously that Truth and progress lay not in texts, but in the opened and properly displayed body. A rhetoric of bad-mouthing reinforced the idea that only error and misguided adherence to authority stood in the way and that with care one could see, among many other things, that women were inverted men. Vesalius publicly denounced the whole lot of his predecessors, including his teacher Jacobus Sylvius, for considering Galen infallible, and Columbus could write of the "by no means negligible corrections" he had to make in Vesalius to produce a dissecting guide that "will tell the truth about the human body." Pallopius announced that he would refute the accounts of ancient and more modern writers and completely overturn some of their doctrines, "or at least make them totter." 30

More important, the new, extravagantly public theatrical dissection and its visual representations advertised the conviction that the opened body was the font and touchstone of anatomical knowledge.<sup>31</sup> What had been hidden before—there was very little if any human dissection in antiquity and no anatomical illustration—and what had been practiced only occasionally and quietly—anatomy in medieval universities—was now made available for general consumption. One need no longer imagine Galen's topographical transformations; one could verify them by sight. As Harvey Cushing argues, the famous frontispiece to Vesalius' *De humani corporis fabrica*, the founding work of modern anatomy (fig. 3), stands as

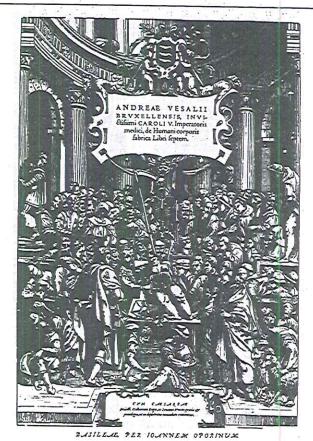


Fig. 3. Sixteenth-century dissection scene from the frontispiece to Vesalius' epochal *De humani* corporis fabrica (1543).

a rebuke to those who only read ancient texts while barber surgeons did the dissection. Compare it, for example, to the frontispiece to Mondino's Anathomia (figs. 4 and 5), the medical-school standard before Vesalius. Text, in the form of the name of the book, or a reader expounding ex cathedra dominate the earlier pictures. The body seems almost an afterthought, lying passively within the picture's plane. The anatomist's gaze in fig. 5 lights on the cadaver's face, not on its exposed viscera, as if its humanity, not its value as dead material to be studied, demands attention. Vesalius must have imagined scenes like these when he condemned ana-

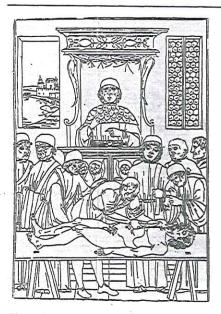


Fig. 4. Frontispiece to Johan Ketham, Fasciculus medicinae (Venice, 1550), a reworking of Mondino's Anathomia.



Fig. 5. Frontispiece to Mondino [Mundinus], Anathomia (1493).

tomists who "from a lofty chair arrogantly cackle like jackdaws about things they have never tried." A butcher in his meat market could teach a doctor more. 32

By contrast, in fig. 3 the opened body is the unquestioned font of authority, enforced by the lordly skeleton that presides over the scene. Unlike the bodies in earlier representations, it comes out at us from the plane of the picture; its exposed entrails occupy dead center between the title and the bottom of the picture. An imaginary line passes down the spine of the skeleton, between its breasts and through the viscera, bisecting the image and dividing the magnificent rotunda in which the cadaver lies. Classical statues lend dignity, as they will later in the book, when the viscera are displayed in them, mediate the violence of dissection, and define the features displayed as those of a normative, median body. And, as in the frontispieces to many Renaissance anatomies, a great concourse of assorted observers looks on. This is a picture, in short, about the majestic power of science to confront, master, and represent the truths of the body in a self-consciously theatrical and public fashion.<sup>33</sup>



Fig. 6. Frontispiece to a 1642 Dutch edition of Vesalius' *Epitome* (1543).



Fig. 7. Frontispiece to G. Cassario, Anatomische Tafeln (1656), which is a reworking of the scene in fig. 6.

The picture may seem to be, more narrowly, an assertion of male power to know the female body and hence to know and control a feminine Nature.<sup>34</sup> Vesalius presides here over an assemblage of men who peer into a woman's helpless, naked, and revealed body before them. The cadaver in the frontispiece (fig. 6) to a later Dutch edition of Vesalius' *Epitome*, a sort of student guide to the larger *Fabrica*, is still more shapely, her generative organs more clearly shown, her face mysteriously veiled so as to emphasize the accessibility to her body to the male gaze. Even the banner bearers are men, the sex of the skeleton evident from his cape and gravedigger's shovel.

But the politics of gender in anatomical illustration is not so simple. The frontispiece to Cassario's *Anatomische Tafeln* (fig. 7) takes the engraving used in fig. 6 and substitutes a man's body for the woman's. His face is also draped, his body is if anything more subject to domination by the instruments behind him and by the knife resting on his thigh. The young and extraordinarily eroticized cadaver being dissected in fig. 8, the frontispiece to John Riolan's text, is clearly a man though androgynously del-



Fig. 8. Frontispiece to Jean Riolan, Les Oeuvres anatomiques (1629). The male cadaver is if anything more erotically portrayed than either the male or female in figs. 6 and 7.

icate in his features. More generally, it simply is not true that women, sensual or not, were particularly identified with the object of anatomical study. In the frontispieces of fourteen anatomy books published between 1493 and 1658, the body being dissected is male in nine cases, female in four, and indeterminate in one. Perhaps the availability of material rather than sexual politics determined the sex of the generic cadaver.<sup>35</sup> In any case, the body qua body is what matters, and the programmatic point of the Renaissance anatomical frontispiece is clear: anatomists have the power to open the temple of the soul and reveal its inner mysteries (fig. 9 is paradigmatic on this point).<sup>36</sup>

The bodies of women must be seen in the context of two further representational strategies, both of which emphasize the theatrical display of bodies as testimony for the anatomist's claims. In the first place, even when medieval anatomies—and indeed even Renaissance books before Jacopo Berengario da Carpi's *Isagoge brevis* in 1522—were illustrated, that is, rarely, what pictures they did contain were at best superficially connected with the text, whose authority rested in the words and reputation of the author. In Berengario, however, something novel was happening. He was committed to an *anatomia sensibilis*, an anatomy of what

could be seen, and illustrations were to be its printed aspect, the graphic substitute for actually seeing the structures in question and thereby vouchsafing the anatomist's words.<sup>37</sup> The frontispieces and the many spectacular engravings in Vesalius and subsequent works continued to invoke the authority, first, of a dramatically opened, exposed body and then, derivatively, of naturalistic representation itself.<sup>38</sup>

Even without words, these new illustrations were advertisements for their own truth. In them the dead act as if they were still somehow alive—not cadavers at all—and thus able to certify personally the facts that the anatomist presents and the epistemological soundness of anatomy generally. The thoroughly classical muscle man in Juan de Valverde's Anatomia (fig. 10) flays himself to reveal his surface structures, holding

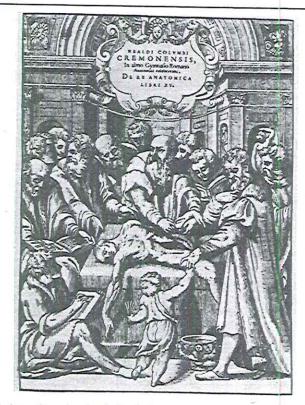


Fig. 9. Frontispiece, after a drawing by Paolo Veronese, to Columbus, De re anatomica (1559).

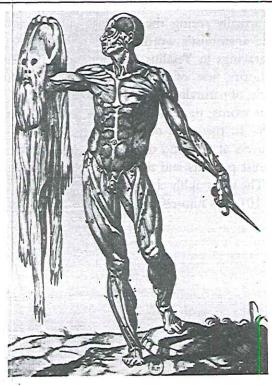


Fig. 10. Classical figure, having flayed himself, displays both his skin and his surface musculature. From Juan de Valverde, Anatomia del corpo umano (1560).

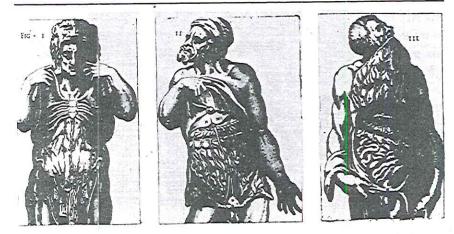


Fig. 11. Three figures in various tortured poses of revealing themselves to the readers of an anatomy text. From Valverde, *Anatomia*.

up his skin-an allusion to Michelangelo's self-portrait, part Marsias, part St. Bartholomew, from the Last Judgment—for extra emotional appeal.39 Later in Valverde's book a rather self-absorbed creature calmly lifts up his belly's fat and skin to show off his abdominal fascia; for our viewing convenience, the next figure holds up still more of his fleshly clothes to reveal the omentum beneath. He gestures with his left hand and turns, as if modeling or rehearsing on stage, to ask the artist or director who hired him whether this pose or gesture will do. A third fellow needs both his hands and his teeth—they hold up the omentum—to assure us an unobstructed vista of his viscera (fig. 11). In a Belgian edition of the Epitome (fig. 12) an opened anatomist—no greater sacrifice in the interests of science is possible—looks heavenward as his fingers resect the ribs of a Vesalian Apollo Belvedere or perhaps himself. Various well-proportioned men in Estienne's La Dissection des parties du corps humain, the most lavishly produced of the pre-Vesalian anatomies, look more or less pleased, pained or pathetic, as they tear themselves apart for their viewer's somewhat minimal anatomical edification (figs. 13-14).

The art and rhetoric of Renaissance anatomies thus proclaim the authority of seeing and the power of dissection. Various stratagems for cre-

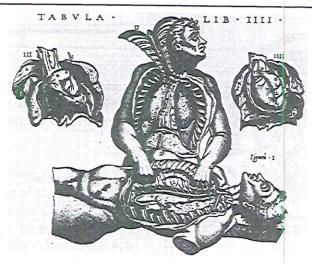
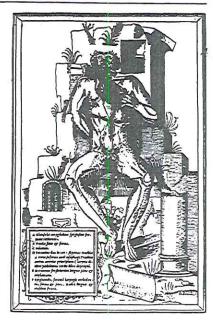


Fig. 12. One anatomized cadaver dissecting another who is represented as a fleshly version of a broken classical statue. Original also from Valverde's *Anatomia* but borrowed by a 1559 Bruges edition of Vesalius' *Epitome*.





Figs. 13–14. Two male figures ripping themselves open for the edification of viewers. The "martyrdom" on the right reveals the tongue and tonsils, the one on the left the lower abdomen and genitals. From Charles Estienne, *La Dissection des parties du corps humain* (1546).



Fig. 15. A female sculpture has suddenly come alive and is leaving her pedestal to demonstrate the text's claim that the uterus is like the penis and that testicles and various vessels also correspond. From Jacopo Berengario, *Isagoge brevis* (1522).



Fig. 16. The model has left her pedestal and gestures flamboy-antly to her uterus. "You see," she says, "how the neck of the womb resembles a penis." From Berengario.

ating the "reality effect" make pictures stand in for bodies themselves and witness the truths of texts that viewers are invited to construe as only one remove from the cadaver itself. Seeing is believing the one-sex body. Or conversely.

Believing is seeing. The new anatomy displayed, at many levels and with unprecedented vigor, the "fact" that the vagina really is a penis, and the uterus a scrotum. 40 Berengario makes absolutely sure that his readers do not miss or doubt the point: "the neck of the uterus is like the penis, and its receptacle with testicles and vessels is like the scrotum." 41 In the first of the pictures accompanying this by now familiar assertion, a classical statue of a decidedly feminine woman seems miraculously to have come alive; she is in the process of throwing off her wrap and stepping carefully down to confront the reader with proof (fig. 15). In the next one (fig.

16) she flamboyantly tosses her cloak over her head with one hand, while with the other she directs her audience's gaze to what has been removed from her open belly and placed on the pedestal from which she descended: her uterus. She—the now animated cadaver whose voice has become indistinguishable from the anatomist's—gestures epideictically and announces with obvious authority: "you see how the neck [of the uterus] . . . resembles a penis" (p. 78). Finally, a third close-up illustration

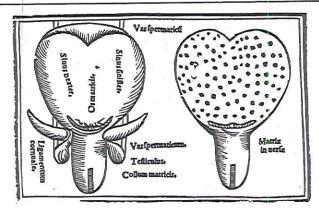


Fig. 17. The uterus and attached vessels labeled so as to make clear once again—"because a tenfold repetition is wont to please"—the correspondences between male and female organs. From Berengario.

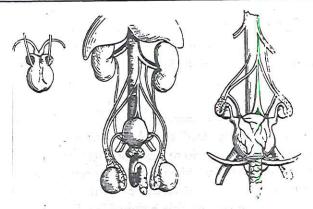


Fig. 18. Male and female organs displayed to demonstrate their correspondences. From Vesalius, *Tabulae sex* (1538).

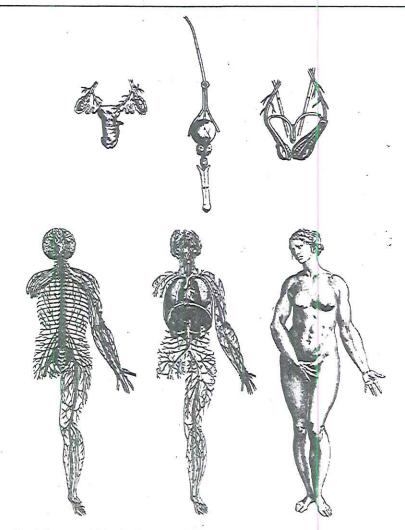
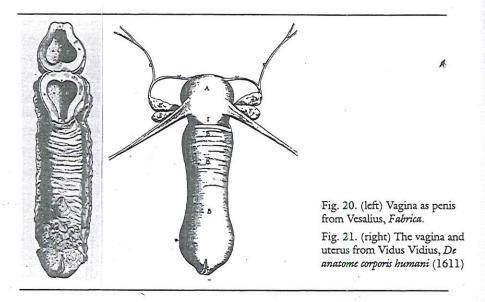


Fig. 19a-d. Top row (19a): the shorter penislike structure is the "uterus with the testes and seminal vessels"; the longer one is the male genitalia to which the student is then asked to attach the male testes. Both male and female organs were then to be glued onto fig. 19b, which in turn fit under 19c and then under 19d, a classical female nude. From Vesalius, *Epitome*.

hammers home the point visually and through labels that identify the ovaries as testicles and the Fallopian tubes as spermatic ducts (fig. 17).

Women's organs are represented as versions of man's in all three of Vesalius' immensely influential and widely plagiarized works. Among the



founding images of modern anatomy is a powerful new register for the old ordering of bodies. His most reprinted image of the vagina as penis, and also the most explicit, is one of the illustrations (fig. 18) from the *Tabulae sex*, a set of cheaply printed pictures, so-called fugitive plates prepared for medical students or for lay consumption. In the *Epitome*, engravings of almost indistinguishable male and female reproductive organs are included for students to cut out and glue onto figures provided for that purpose (fig. 19).<sup>42</sup> But the most visually striking of Vesalius' pictures on this theme is in the *Fabrica* itself. Here (fig. 20) the uterus, vagina, and external pudenda of a young woman are not specifically arrayed, as in the *Tabulae* or the *Epitome*, to demonstrate that these structures are isomorphic with those of the male; they are just seen as such.

I emphasize "seeing as" because these images, and many more like them, are neither the result simply of representational conventions nor the result of error. A whole world view makes the vagina look like a penis to Renaissance observers. Of course a representational convention, a schema, is at work; Renaissance anatomical illustrators learned to depict the female genitalia from other pictures and not from nature alone (see figs. 21–24). But this does not mean that stylistic concerns kept them from seeing genital anatomy "as it really is," or as moderns see it.<sup>43</sup>

Nor is the strange quality of images in figs. 15-24 the result of someone's efforts to make the female body conform to some erroneous text or to distort women's genitalia so that they become a caricature of men's. The draftsman who produced fig. 21, for example, is not guilty of clandestinely substituting animal for human anatomy, as Vesalius coyly accuses Galen of doing in the Fabrica's famous juxtaposition of a woodcut of a canine premaxillary bone and suture with those of a man (fig. 25). He is, moreover, innocent of what Vesalius himself did on occasion: "seeing" something that does not exist because an authority declares it to be present.44 There are gross errors of this sort in Renaissance illustrations of the female genitalia, but they are irrelevant to the rhetorical purposes of the illustrations. In fact, if they were more accurate, they would make their point even more powerfully. If, for example, in figs. 16-17 the nonexistent "cotyledons"—the dots representing the anastomosis of veins in the uterus—were rubbed out, the suggestion of two chambers eliminated, and the vagina drawn in correct proportion to the uterus, the organs would resemble a female scrotum and penis more closely. Expung-

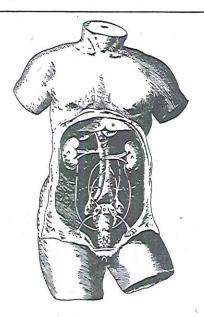


Fig. 22. The female torso, in the form of a piece of broken classical art, from which the penislike vagina in fig. 21 was taken, following the artistic and scientific conventions of the time.

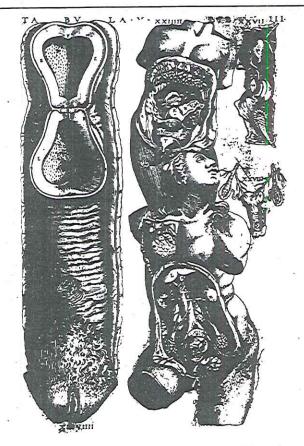


Fig. 23. This reworking of Vesalius in a 1586 edition of Valverde follows the same convention illustrated in figs. 21–22. On the left is a structure that looks like a penis; on the right are the classical female forms from which it was taken.

ing the "horns of the uterus" (GG) from John Dryander's representation of the female reproductive organs (fig. 26) or from other Renaissance illustrations (figs. 32–33 for example) would make the uterus and vagina look more, not less, like a bladder and penis; and redrawing, in the interests of accuracy, the ovarian artery and vein EE in fig. 26 so that they appear less like the epididymis, II in fig. 27, would, at worst, leave the overall effect the same.<sup>45</sup>

However grotesque or monstrous the woodcut of the female genitalia

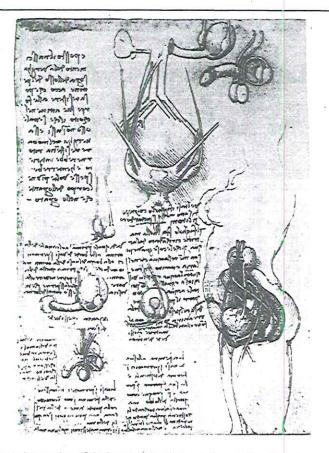


Fig. 24. Leonardo's version of the isomorphism between the womb and scrotum—upper right and lower left—is peculiar in that he renders it by making the vas deferens of the male curve around to resemble the shape of the uterus. The penis/vagina imagery is more conventional.

depicted in the Fabrica has appeared to some modern commentators, it is not incredible or "wrong." Its proportions are roughly those of "accurate" nineteenth-century engravings (fig. 28) and illustrations from a modern text (fig. 29), though these of course were not drawn to illustrate the isomorphism between male and female organs.<sup>46</sup>

Subsequent discoveries that would force changes in the labels of illustrations are of equally minor importance in the history of "seeing as." The Zeuglin, or testes, and the Samadern, seminal vesicles, did not exist, as