

Texts and Documents

ANATOMICAL FUGITIVE SHEETS WITH SUPERIMPOSED FLAPS, 1538–1540

IN OR just before the year 1538, some unknown genius hit on the idea of representing the relationships of the thoracic and abdominal viscera in depth by constructing printed figures with superimposed flaps. The earliest known examples of this technique take the form of broadsheets (so-called 'fugitive sheets'), which proliferated from 1538 onwards and continued to appear all through the sixteenth and well on into the seventeenth century; the adaptation of the technique to book illustration, beginning with the *Fabrica* and *Epitome* of Vesalius in 1543, has been discussed by Crummer (1932). Most of the broadsheets with superimposed flaps appeared in pairs illustrating the anatomy of the male and female body; exceptionally, the two figures were placed together on one sheet.

In a previous note (1964) I attempted an iconographic grouping of anatomical broadsheets with superimposed flaps known to have been issued before 1600, which was amplified in a subsequent study (1966). Further consideration suggests that a more logical iconographic grouping might be into two main families, one comprising Crummer's 'Vogtherr' group in its various manifestations (my group III) and probably also the 'R.S.' group (my group VII), and the other the 'Guldenmundt' (group I), 'Sabio' (group VIII), and 'Silvester' (group II) pairs; group IV represents the combination of a 'Guldenmundt' male with a 'Vogtherr' female, while groups V and VI are only doubtfully distinct (the latter will be further considered below).

Consideration of the various texts accompanying the earlier examples of these groups has suggested certain possible relationships which are indicated here as guides to future investigation. Further it suggests that the earliest sheets of this type to be issued may have illustrated only the female figure, and that sheets with male figures were added somewhat later.

Two issues bearing the date 1538 are known, and in each case only the female figure is certainly extant; these sheets were printed respectively by Jobst de Negker of Augsburg and by Heinrich Vogtherr of Strassburg. The two issues are identical both iconographically and textually and it is also noteworthy that both claim Imperial privilege (Keyserlicher Mayestat Freyheit).

The figure on these sheets is of the 'Vogtherr' type. Crummer was probably right in suggesting that the 'frog-like' pose of this type of figure links it with the 'Ketham' group of figures of the female reproductive system, one of which also circulated as a broadsheet (Crummer 1923), but the scarf across the thighs is paralleled only in the female visceral figures of Dryander's *Anatomia Mundini* published in 1541. It seems quite possible that Dryander's female figures, although not dated, were prepared in 1536–7, for their anatomy is not at all influenced by the Vesalian *Tabulae* of 1538; if this inference is justified, the Dryander and 'Vogtherr' figures may be derived from a common origin. These considerations open up the possibility that one or both of the 1538 broadsheet issues might have consisted of the female figure only.

The text of the 1538 sheets is in German; it is headed 'Anothomia oder abconterfectung eines weybs leyb/wie er innwendig gestaltet ist', and begins with the sentence

'Das hirn ist kelter und feuchter dann alle andern gelider'. This text, which may be termed '*Anothomia* Variant I', does not appear in any German sheets later than 1538 which are known to me, nor am I aware of any male figures accompanied by a text which can be regarded as the specific counterpart to it. It is clearly aimed at an unscholarly audience.

If the Negker and Vogtherr issues indeed represent the prototypes of the whole series of broadsheets with superimposed flaps, it seems reasonable to conclude that the technique originated at one of the German printing centres. The appearance in the same year of two substantially identical sheets both claiming Imperial privilege raises the question of priority; since Negker does not appear to have issued any later sheets, whereas Vogtherr did so in 1539, it seems possible that Negker was first in the field and later transferred his copyright to Vogtherr, so that Augsburg rather than Strassburg appears to be the more likely centre of origin. The claim to copyright may well be connected with the novelty of the technique; none of the later German issues bears any claim to privilege, but it is noteworthy that the first French issue does so.

The first certain pair of Vogtherr sheets bears the date 1539; Crummer (1932) states that he had heard of a Vogtherr pair dated 1538, but there is no more definite record of this. The 1539 male figure corresponds so closely to the female in form and pose that it could have been adapted from it by changing the head and eliminating the breasts. The two sheets are headed respectively '*Anothomia oder abconterfectung eines Mans leyb*' and '*. . . eines Weybs leyb*'. The text accompanying the female figure differs from that of the 1538 issues both by additions and omissions, the latter including the phrase relating to the brain which stands at the head of the earlier text; the text for the male figure is identical with that for the female except for the passages related to the sex organs. Some passages in the 1538 and 1539 texts are however identical; it remains to be determined whether these allow the two texts to be traced to a specific source. This text is further embellished with a series of small woodcuts representing the individual organs, accompanied by Latin captions.

The same text, which may be termed '*Anothomia* Variant II', and similar small figures of the organs, appear also on the sheets with the 'Adam and Eve' pair of figures issued at Nuremberg by Hans Guldenmundt. These sheets are undated, the date 1539 hitherto assigned to them being that of Guldenmundt's apparently complementary pamphlet, '*Ausslegung und beschreybung der Anatomii*'. Schele (1965), however, has pointed out that copies of the 'Adam and Eve' figures engraved by Cornelis Bos of Antwerp from a German original exist in two states, the second of which is dated 1540, so that the first could have been earlier than that year; he therefore suggests that the Guldenmundt sheets, if indeed they were the originals, might actually have been issued in 1538. This speculation, if warranted, would give the Guldenmundt 'Adam and Eve' pair priority over the Vogtherr 'twins', suggesting that Vogtherr might have taken over the *Anothomia* Variant II text with its embellishments from Guldenmundt, and also that the addition of a male to Vogtherr's earlier female figure was possibly inspired by Guldenmundt's example.

If however the Guldenmundt sheets were issued only in 1539, their claim to be the earliest male and female pair would be challenged not only by the Vogtherr issue of

that year, but also by the recently rediscovered Sabio-Pederzani (Venice) issue of the same year and possibly also by the prototype of the 'Sylvester' group of sheets. The 'Sabio' and 'Sylvester' pairs of figures, although iconographically distinct, are associated with the same Latin text, which may be termed '*Viva delineatio*' from the key-words of the title. This text consists of three parts; a preface opening with the words 'Vetus dictum est', a main text of twenty-three paragraphs designated alphabetically, and a section sub-headed '*De utero, et muliebribus vasis*', consisting of nine paragraphs designated numerically. It includes alternative names for the organs in Greek and Latin, together with a few described as Arabic but in two cases really of Hebrew origin. A number of correspondences and near-correspondences with the text of the Vesalian *Tabulae anatomicae* of 1538 have led to the hypothesis that the *Viva delineatio* text originated with Vesalius, but its anonymity argues against this; it seems probable that these correspondences reflect dependence on a common neo-Galenist source, most probably the writings of Johann Guenther. This text is clearly aimed at a much more scholarly audience than that of the German *Anothomia*, coupling the new technical device of the figure with superimposed flaps to a thesaurus of alternative anatomical names for the thoracic and abdominal organs.

The Sabio-Pederzani sheets appear designed to complement or rival the Vesalian *Tabulae*. In this venture Gianbattista Pederzani appears to have been the sponsor or nominal publisher and Gianantonio de Nicolinis de Sabio the printer; they had been similarly associated in an edition of Berengario da Carpi's *Tractatus de fractura cranei* published in 1535. The figures show less thematic kinship than do the Guldenmundt and Sylvester pairs, suggesting that they may have been taken at random from an artist's portfolio; this also raises the possibility that the female figure might at first have been intended to appear separately, although the text as it stands does not allow of this. The accomplished representation of the sacrum and iliac crests in the female figure (Crummer, 1923) indicates that the artist was better instructed anatomically than those who devised either the Vogtherr or the 'Sylvester' figures.

None of the known sheets of the 'Sylvester' group is dated. The apparent relationship of the vertebral column and lower ribs in these figures to those of the Vesalian *Tabula IV* (Wells, 1966) indicates that the type came into existence after 1538, and the sheets issued by Sylvester van Parys at Antwerp are very probably later than 1540. The anonymous and unlocated bilingual version (Wells, 1964) could be earlier; Crummer, who acquired but did not describe these sheets, observed (1932) that they 'may . . . be earlier than any of the dated sheets, although I doubt it'. In this set the entire *Viva delineatio* text, including the section *De utero* . . . accompanies the male figure, while the female is accompanied by an abridged rendering of this text into German under the title *Lebhafftige abmahlung* . . . The male and female figures of this set are more consistently treated than the Sabio-Pederzani pair, suggesting that they were devised expressly for their purpose; these two pairs of figures have a number of features in common, but the 'Sylvester' woman appears in some respects more indebted to the Guldenmundt 'Eve'. The resemblance of some ornamental features in the Sylvester figures to similar features in one of the Vesalian *Tabulae* (Wells, 1964) may or may not be significant, but it may be noted that one of these features, the cartouche with scrolled ends, occurs also on the device of the Basel printer Robert

Texts and Documents

Winter. In the absence of any direct evidence, Basel suggests itself as a possible place of origin for a bilingual Latin-German publication of scholarly character with apparent Venetian relationships.

The sheets with Latin text issued by Jean Ruelle at Paris from 1539 onwards might well be described as a 'pseudo-pair', the male and female sheets belonging both iconographically and textually to different families. The male figure is the Guldenmundt 'Adam' deprived of his apple, and is accompanied by the *Viva delineatio* text modified by omitting very nearly all Greek words; the section *De utero* . . . is also omitted. The female figure is of the Vogtherr type; it is accompanied by a Latin text which may be designated, from the opening words of its title, the *Perutilis anatomes* text. This text follows the same arrangement as the German *Anothomia* Variant I, but differs significantly in content, so that neither of these texts can be regarded as directly derived from the other. The marriage of the Vogtherr female figure with a male belonging to a different set seems to support the speculation that the Vogtherr female originally lacked a male counterpart, while the selection of the Guldenmundt 'Adam' for this role suggests that this type of male figure was first in the field. It is even possible that the female sheet, which alone is dated, was first issued separately. Ruelle also issued these figures with French texts freely paraphrased from the Latin (*Vif pourtraict/Anatomie tresutile*); this issue is undated and can only be placed between 1539 and 1545 (Lindberg, 1953).

The association of the *Viva delineatio* and *Perutilis anatomes* texts recurs on sheets printed by Johannes Crinitus at Antwerp in 1540, but this time associated with Cornelis Bos's copies of the Guldenmundt 'Adam and Eve' figures in their second state (Schele, 1965). The sheet with the male figure has the *Viva delineatio* text complete except for the section *De utero*, that with the female figure has the *Perutilis anatomes* text and in addition a section headed *Secretarum corporis partium muliebris sexus debita delineatio*, which covers the same ground as the *De utero* section of the *Viva delineatio* text, but in a simplified form and eschewing Greek terms.

Both the Bos version of the Guldenmundt 'Adam and Eve' and the Sylvester pair of figures were also issued with a Nederlands text. These texts *Anathomia oft deylinghe eens Mans lijf*, and . . . *eens Wijs lijf* appear so far as comparison has been possible to be identical in the two issues. The male text is a simplified version of the *Viva delineatio* text but the female appears to be a translation not of *Perutilis anatomes*, but of the partially parallel German 'Anothomia Variant I'. The undated English sheets, *The Woman* and *The Anatomie of the inwarde Partes of man lyvely sette foorth*, have eclectic texts which incorporate elements derived from the *Viva delineatio*, *Perutilis anatomes*, and *Secretarum corporis partium delineatio*, together with matter whose source is not yet identified. All the vernacular adaptations of the *Viva delineatio* reveal a scaling down of the level of the scholarship expected of the audience.

On present evidence the sequence of appearance of the various primary texts appears to be:

- 1538 — *Anothomia* Variant I (German)—? female only;
- 1538 or 1539 — *Anothomia* Variant II (German)—male and female;
- 1539 — *Viva delineatio* with *De utero* (Latin)—male and female;
- 1539 — *Perutilis anatomes* (Latin)—female only;

Texts and Documents

1540 — *Secretarum corporis partium muliebris sexus debita delineatio*
(Latin)—female only (alternative to *De utero?*)

It would not however be surprising to discover that the *Perutilis anatomes* text did not originate with Ruelle's issue of 1539 and even that it might have antedated *Anothomia* Variant I; at present, however, no issue of Vogtherr-type figures with Latin text by a German printer is recorded earlier than 1551–2.

The facts reviewed in this survey suggest the following hypotheses.

1. The earliest sheets with superimposed flaps to be issued were examples of the Vogtherr female type, accompanied either by the German '*Anothomia* Variant I' text or possibly by the parallel Latin *Perutilis anatomes* text; there is a relationship between this type of figure and certain figures of Dryander probably dating from 1536–7.
2. The 1538 Augsburg (Negker) issue probably preceded Vogtherr's Strassburg issue of the same year; Negker may have made over his privilege to Vogtherr during the year.
3. The earliest pair of sheets issued was probably the Nuremberg (Guldenmundt) 'Adam and Eve' set, which formed the model for the 1539 Vogtherr issue and also for the Sabio-Pederzani and Sylvester pairs.
4. The Latin *Viva delineatio* text originated in the same neo-Galenist milieu as those of Wechel's *Osteotome* and the Vesalian *Tabulae*, but is not necessarily specifically Vesalian; present indications favour the Sabio-Pederzani issue as the prototype of this text.

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