In the great felicity of this age... anatomy has begun to raise its head from profound gloom, so that it may be said that it seems almost to have recovered its ancient brilliance. ... And lest all others should successfully accomplish something for the sake of our common studies while I alone remain idle, and lest I achieve less than my ancestors, I decided that this branch of natural philosophy ought to be realled from the region of the dead.

-Andreas Vesalius, Preface, *De fabrica* (1543)

06-P5) Balthasar Hesler, "Vesalius’ First Public Anatomy at Bologna" (1540) ¹

THE FIRST ANATOMICAL DEMONSTRATION, in the morning.

The anatomy of our subject was arranged in the place where they use to elect the Rector medicorum; a table on which the subject was laid, was conveniently and well installed with four steps of benches in a circle, so that nearly 200 persons could see the anatomy. However, nobody was allowed to enter before the anatomists, and after them, those who had paid 20 sol. More than 150 students were present and D. Curtius, Erigius, and many other doctors, followers of Curtius. At last, D. Andreas Vesalius arrived, and many candles were lighted, so that we all should see, etc.

Then D. Vesalius began: Domini, you know how doctors, both ancient and modern, use to divide the human body. The Egyptians and the Arabs begin with the trunk and the extremities, but Galen, whom also Mundinus has followed, begins with the three venters. But leaving these questions (because Curtius requested him to demonstrate what [Curtius] had lectured) we shall proceed to our anatomy. And there

was the body cut up and prepared beforehand, already shaved, washed and cleaned. [...]  

[He then] showed two long [muscles] along the belly, at the lower part joined together by white tissues but at the top end more separated. And he showed us how they ended in os pectinins, but had their origin from os juguli, which not yet could be seen, and not from the xiphoid process, as Mundinus maintains.  

Here Curtius remarked that this, however, was not Galen's opinion.  

Vesalius answered: No, Dominus, he said, even if that is not Galen's opinion, we shall however demonstrate here, that in fact it is so. But now, he said, we do not want to fight with many words.  

Then the Rector interposed, rather clumsily: D. Doctor Andreas, do not be afraid of telling your opinion on these questions, do not fear those venerable masters.  

Vesalius answered: Later, in the anatomy of venter medius I shall demonstrate, that these longitudinal muscles begin from os juguli and not from the orifice of the stomach.  

Finally in the anatomy of the transversal muscles he showed us how they begin at the sixth vertebra and at the shoulder blade, which could not yet well be seen, until we had gone further on. Please observe, he said, that all muscles issue from bones and beginning at their heads with sinews and ending in sinews or cordae they are again fastened to bones, in order to effectuate their natural voluntary movement in the body. The rest, he said, we shall demonstrate after dinner, when those muscles have been removed. And they had killed a dog upon which he showed that the muscles in dogs as also in other animals were fastened in quite another way [than in man], so that they should be able to run faster. He promised to show us after dinner the anatomy of the muscles of an arm. In the meantime we ought to read about these matters in Galen, De usu partium, I and II, and De anatomicis administrationibus, I.

The Fifteenth Lecture

THE ANATOMY OF THE 'DIDIMI'. Mundinus goes on to the spermatic vessels

183, 229-249, 273.
of the female, to the uterus etc. but all that we shall pass, as we now have no female body. But we shall explain the anatomy of the spermatic vessels of the male and first the anatomy of the testicles. Since the coitus of male and female, which in itself is the highest of pleasures, is necessary for conception, it may be asked why Nature put so great a pleasure in the coitus. In *De usu partium*, XIV: c. 6, Galen talks about the reason of the pleasure in the coitus. If it had been possible, he says, Nature would have made man and all animals eternal. But since this was not possible, due to the contrary elements of which we all consist, so when She could not make the individuals eternal and conserve them eternally, She at least tried to make the species eternal. And yet some time She tried to make the species of man eternal. Art certainly could not make perpetual what Nature had denied in the individual. She has tried, however, as much as She could for a time to make the species eternal. For this purpose, however, the venereal act was necessary. Because many troubles and hardships arise from it, She made it so delectable in order to entice man into it for the conservation of the species; otherwise all would seek to avoid to create one's similar. Consequently, everybody runs after and seeks this pleasure. To abstain from sexual intercourse is to act against Nature's instinct. (Yet permitted in a lawful and honorable way, namely, in legitimate marriage. To Christians, however, the venereal act, my good Curtius, is forbidden outside wedlock. And they are free to assume it or not as God through His spirit has inspired each one.)

Secondly, Galen says that the organs of procreation are the same in the male and in the female, only that in the female all is reversed to the male, in whom that which is inside in the female is outside. And again in the male all is contrary to the female. For if you turn the scrotum, the testicles and the penis inside out you will also have all the genital organs of the female, like they are in the male. (Yet the penis of the male is more solid, the neck of the uterus of the female more excavated and concave and much more extendable in time of coitus and parturition.) Vice versa, if you turn inside out the genital organs of the female, you will have all the organs of the male. Thus, they differ only by being reversed. The reason of this reversion in the female is that they have all their genital organs inside, and that is, I maintain, owing to their lack of natural warmth.
Therefore in women these organs have stayed inside. This results in three great advantages in woman. One is that their genital organs are inside in order to receive man’s seed. The second reason is that women increase the superfluous blood and humidities, which they have attracted, and that thus they overflow with superfluous blood, namely for the production and nourishment of the foetus. This is why not pregnant women menstruate naturally each month, but when they become pregnant, the fluids are retained for the said purpose, namely conserved for the nourishment of the foetus. The third reason is that they cannot conceive by their own seed without the intercourse of the male. For [the seed of the male] is required, because it is hotter and more perfect, but that of the female colder.

This being so, Mundinus said, there are the spermatic vessels, preparing the sperma and transferring it to the testicles, and where the semen is produced for the testicles. And in De usu partium, XIV: c. 16, Galen says about the origin of the spermatic vessels that they start directly from the great aorta and the vena cava in the region under the kidneys. The venae emulgentes start indirectly from these two [vessels]. Thus the right spermatic vessel starts from below the right kidney, directly from the great aorta and the vena cava and not from the vena emulgens or indirectly, just as vena emulgens. Some people doubt whether it starts from the great aorta. I, however, have not seen it myself. The right testicle is warmer and contributes to produce male offspring, because it is in a hotter position and is nourished by hotter blood. Vice versa, the left one is colder and contributes to produce female offspring owing to opposite reasons. Likewise the right testicle in the uterus is hotter than the left one owing to the same reasons as in the male, namely to the direct proximity of the liver as we said today concerning the kidneys. Hence follows according to Galen that the male offspring is conceived in the right part of the uterus, the female in the left. Therefore, you will recognize from the woman what foetus she bears, if the right part of the uterus swells, then she has conceived a male, and if the left one swells, she has conceived a female. In the same way the right testicle produces a male offspring, the left one a female. One asks: if the seed from both the testicles falls in the uterus, which will she conceive? We maintain that then the uterus will prevail. Because, as Galen
says, it stays there eight months. And there Galen teaches how to know, if the males will produce male or female offspring, namely: at the time of the breaking of the voice, the testicles ought to be inspected, and if the right one swells and becomes larger, then the offspring will be male, if the left one, female. (And this the farmers know, when they tie up the testicles of their bulls as they want their animals to have male or female offspring.) [. . .]

THE TWENTIETH LECTURE, in the morning, 24 January

THE ANATOMY OF THE LUNG AND OF THE HEART

[. . .]

There is arguing and doubt about the substance of the heart. Some people maintain that the flesh of the heart is a muscle. Galen, however, tries to prove in De anatomicis administrationibus, I, and De usu partium, VI, that the heart is not a muscle. Galen especially wants us to note the muscles according to their fibers, and he maintains that no muscle has all three kinds of fibers, as has the heart, but only one kind of fibers which can best be seen from its functions. For we see that the heart attracts with its long fibers, retains with the oblique ones and drives out with the transverse ones. For when the heart dilates, it attracts with the long fibers, and when it compresses itself, it drives out with the transverse fibers, and for a time it retains with the oblique fibers. However, there is no muscle in any organ of the body, that at the same time performs these three operations. Therefore, it will only have one or at the utmost hardly two [kinds of fibers]. As consequently the function of the heart is another than that of the muscles, it should also have other and more fibers. Consequently the flesh of the heart is not a muscle. One says, that the heart does not move by voluntary, but by natural movement, as it also moves when we are sleeping. I maintain that it moves also by voluntary movement, namely by reason of the nerve that is conveyed to it. It also moves naturally, because when the nerve is cut off, we see it still moving and beating, but as muscles do not do so, therefore their operations are different, and consequently they also are of different substance. For the operation is the sequel of the substance. Further Galen says, that quite another smell is felt from the cooking of the
flesh of the heart than from that of muscles. Consequently the flesh of the heart is not a
muscle. [. . . ]

Further, there are on each side of the heart the auricle, connected with the
sinuses or ventricles of both the orifices of the heart. And they are made similar to the
external ears of man and without any utility. Consequently Mundinus errs as regards
the utilities of the auricles of the heart, when he says that they are given to retain the
superfluities of the heart. This reason is a silliness and it is not true. One must indeed
be of quite the opposite opinion concerning them. For as the left ventricle of the heart
drives out the spiritus, the auricle is added to it so that the heart shall better drive out
the spiritus through the arteries. It always drives out, but it never retains. The same
must be supposed about the right ventricle, as this in the first place is created to receive
the blood from the liver through the vena cava, secondly to drive out the blood to the
lung. Thus, the other auricle is added better to drive out the blood and not at all to
retain it. Galen attributes this reason [for the creating of the auricles] De usu partium,
VI, etc. Further, the substance of the heart has all the three ways of attraction. The
attraction can happen either by vacuum or heat, as the flame attracts the oil, or owing to
the property of things. Therefore, the unique and principal utility of the auricles of the
heart is to aid the heart in attraction and expulsion, so that the vessels of the heart shall
not burst. Therefore this Mundinus' reason is quite false. [. . . ]

THE EIGHTEENTH DEMONSTRATION, in the morning.

In the demonstration today, Domini, we shall see, D. Vesalius said, the anatomy
of the middle venter, in which the spiritual organs are situated, just as the organs
serving the faculty of nutrition are contained in the inferior venter. And in his usual
manner he explained at great length the theory of the anatomy of the heart, the lung,
and the capsula of the heart, how [the blood] through the vena cava is transferred from
the liver to the heart, how it is better concocted there and then transported to the lungs
for their nourishment, and how a portion of it is transmitted through the wall or
membrane to the left venterle where the [vital] spiritus are produced, and how there is
the very beginning of the great aorta and how through this artery the spiritus are
transmitted over the whole body etc. First of all, he said, I shall show you today how true my theory about the venesection in pleurisy is, about which there is today among us great controversy, and I shall demonstrate to you that the picture which I have published is true and corresponds to this body. You will see how from the vena cava one branch issues running to all the ribs and nourishing the whole thorax. He showed us the pictures which he had published in his little book and in his *Tabulae* and he compared them with the present subject, and to be sure, they corresponded completely. For I saw this with my own eyes, as I stood quite near. And read this little book, how in pleurisy the vein is to be cut according to his opinion, contrary to the opinion of the modern surgeons and also to that of D. Curtius himself.

Returning to the demonstration he said: First, Domini, you will now see how the dia-phragm is fixed to the ribs and how along them it is fleshy, and in the middle sinewy and more white, just as it seems reddish and fleshy [near the ribs]. He showed how the ribs are lifted similarly with the diaphragm. For he had cut the ribs in the middle. Then he severed the ribs from the diaphragm, and showed us the position of the heart in the middle of the lung surrounded by its capsula. And when he had opened it, one saw its great size, for Vesalius himself emptied it with his hands showing us the fluid. Here, he said, I do not want to discuss how it arises. For certainly I do not believe that it comes out of dissolved spiritus. For if this should be true (he blamed the opinion of Curtius—you can see how he had spoken about it in his lecture) then after death it would necessarily be found likewise in all the arteries of all the organs. But when we find it in man immediately after death and also in animals still living, I surely believe that it is naturally to be found in man in health. Then he went on to show us the origin of the vena cava from the gibbous part of the liver, how it runs to the right ventricle of the heart; and that it is not true, as some maintain, that this vein after its origin divides at the heart, and that one part runs to the heart and the other downwards etc. You see that the whole vein runs here to the right ventricle of the heart, as we shall see better, when it is opened. He showed us there the right auricle and the left where all the arteries originate from the great aorta etc. Before we open the substance of the heart, which we shall see after dinner, I first want every one of you carefully to see the origin of the vena
cava, how the whole of it enters the right ventricle of the heart, and how a branch of it then runs to the middle part of the chest, and how in running downwards it nourishes the eight intercostal muscles. [. . . ]

**THE TWENTY-FIRST LECTURE, in the evening**

The interior parts of the heart with its ventricles and orifices or valves had to be reviewed. As regards the mention of the two auricles of the heart outside the two ventricles there is some doubt according to Aristotle, *De partibus animalium*, III: c. 4, if the larger animals have three ventricles and the smaller ones only two. Galen, however, in *De usu partium*, VI, maintains that in animals which have a lung, there are two ventricles of the heart and that those lacking the lung, have only one ventricle. There Galen argues against Aristotle, because he has not observed the operations of the heart in animals, from which he could have learned how many heart ventricles they have according to their operations. For the right ventricle of the heart is made for the nourishment of the lung, because from it the blood is transmitted to the lung nourishing it. If there is a lung, also the right ventricle is given. And vice versa, when there is no lung, there cannot be a ventricle. Therefore Galen maintains: the right ventricle is made for the sake of the lung, and it will be found in the more perfect animals, in which the blood greatly abounds. For the lungs could not get nourishment from the thick blood of the liver, as they are a fungous and light organ and in continuous movement, and they require thin and fine blood. Thus it follows that animals which have a lung, also have the right ventricle of the heart. Those that have no lung lack the right ventricle of the heart, and they have only the left one.

It is necessary to know that not the heart but only the lung gets nourishment from the blood concocted in the right ventricle, for the greater portion of the blood is transmitted to the lung, the remaining portion again, it transmitted through the partition wall to the left ventricle of the heart, in which the spiritus for the whole body are produced and from which all the arteries originate. Since the flesh of the heart is of hard substance, it gets its nourishment from the similar blood of the liver. We see a vein coming to the liver, which runs around the heart and nourishes it. For the heart
must be a stronger and harder organ in order to prevent the spiritus produced there from disappearing and evaporating. Thus the ventricles of the heart are distinguished in animals only after their operations, as we have already said. Between these two ventricles of the heart, the right and the left, there is in the middle a kind of wall, through which the remaining portion of the blood passes from the right ventricle to the left, and there it is still more completely digested for the production of the spiritus. The right ventricle is only to be found in animals with a lung, but the left will be found in all animals. And it is this wall that some people have called a middle ventricle through which the blood is transmitted from the right to the left ventricle. But there are only two ventricles of the heart in the perfect animals which have a lung, and about this see Galen, De usu partium, VI: c. 15.

In the right ventricle there are two orifices. Through one the blood is received from the vena cava of the liver, which appears very large here, through the other the greater portion of the blood is transferred to the lung, the remaining portion again is transmitted through the wall to the left ventricle of the heart for the production of the spiritus. Mundinus' statement about the three valves of the right ventricle of the heart, is certainly quite the opposite. For it is not true that the right ventricle of the heart dispatches the blood to the lung through the same valve by which it received it from the liver. Galen, however, maintains that each one of the two ducts has two orifices so that it receives the blood from the liver through one and expels it to the lung through the other. Now the orifices of each one of the ventricles has three valves, that is small to fleshy membranes placed round the orifices, except the opening of the left ventricle through which the air goes out. This one has only two valves. About this see Galen, De usu partium, VI: c. 16 or 18. Galen does not accept a perfect occlusion of the orifices of the heart, as Mundinus maintains here. Now the blood enters the right ventricle of the heart through the vena cava, and goes out from it through the arterial vein to the lung. Into the left ventricle again the air is transferred from the lung through the arteria venalis for restoration; There all the arteries originate, starting with the great aorta, through which the vital spiritus are transferred to the whole body. And Nature has made three valves in the right ventricle of the heart so that the blood should not return from the
heart to the liver, as Mundinus has maintained, in order not to return before it is
digested. And this occlusion must be complete, what is against the opinion of Mundinus
but in agreement with Galen.

Mundinus adds that the veins originate in the heart, etc. The second reason here
is true, that since the heart has red flesh, it gets its nourishment from the blood of the
liver, which is transferred to it through a branch of the vena cava, which is the opinion of
Galen. But it is against Galen when Mundinus says that the veins originate in the heart.
He has, however, taken this reason from Aristotle, *De partibus animalium*, III: c. 4. But
the discussion about this is very discursive, and we have explained it elsewhere in our
ordinary lectures. Only observe that the vein which goes around the heart and through
which we said the nourishment was transferred to the heart from the liver ought not to
mislead us to the mistake that the veins originate in the heart, because they all arise
only in the liver having only one coat. From the heart, however, only the arteries that
have two coats arise. For all organs follow their nature and the quality of their origin
from which they arise. For the veins are soft, as is the flesh of the liver, the arteries,
again, are hard, as is the flesh of the heart, and there are no arteries soft as veins, nor
veins hard as arteries. Thus, the arteries arise in the heart and the veins in the liver,
and not in the heart. For the substance of the heart is not soft, as that of the liver, but
hard and like cartilage.

One cannot conclude: because the veins are immediately connected to the heart,
they therefore arise there. And we heard about all this last year in the lectures on
Galen's *De arte medicinali*. Further by another way in the right ventricle the
nourishment is transmitted to the lung through the vena arterialis which consists of a
double coat like an artery, when elsewhere all veins of the whole body have only one
coat. This [vein] is the only one that has two coats as the arteries. Just as the arteries
in the lung are soft, so is this vein hard, namely in order not to burst in the movement of
the lung, secondly, as Mundinus says, so that the fine blood does not easily disappear.
But the reason is quite the opposite, because this vein has a double coat so that the
natural blood shall pass out. Secondly, [the arteries] then cannot burst when they have
two coats. And thus these two reasons are false: for Nature wanted to exhale in the
lung the spiritus from the blood with which the lung should be nourished, but She did not constitute the veins in such a way anywhere else in the whole body. See Galen, *De usu partium*, VI, on this matter. Consequently, the valve in the right ventricle of the heart has one figure when the blood enters from the liver, and another when it goes out to the lung, and it has the shape of the letter C or of the Greek ς. The left ventricle remains, which has one orifice through which the air enters and another from which the great aorta, the origin of all the arteries, arises and through which the spiritus go out to the whole body. First it has an orifice in the shape of an arrow where through the arteria venalis the air from the lung enters the substance of the heart; and the occlusion is not complete, as Mundinus maintains. For Galen l.c. testifies this. The aorta, again, has another orifice which is shut with complete occlusion. But why, some of you may ask, did not Nature give more or fewer valves of the left ventricle than these three? Galen says, that if they were fewer, then they would not be so completely closed. If more numerous, even if they might close better, they could not be so strong because of their smallness in consequence of the greater number. Therefore, only three valves are required for a complete occlusion. [ . . . ]

THE NINETEENTH DEMONSTRATION, in the evening.

In this evening demonstration D: Vesalius showed us the anatomy of the inner parts of the substance of the heart. As usual he first had a long introduction on the two ventricles of the heart, the valves, the veins, the nerves and the arteries, how the right ventricle of the heart has two orifices and how each one of these is supplied by three valves. Through one orifice the blood is transmitted from the liver by the vena cava to the heart, through the other, again, the blood now concocted in the heart is transmitted by the arterial vein to the lung. And each one of these orifices has three valves, the former one closing from outside inwards, the other, however from inside outwards. The left ventricle in the same way has two orifices, through the former the arteria venalis runs from the lung transmitting to the left ventricle the inhaled air, the other is the great aorta, the beginning of all the arteries of the body through which the spiritus are transmitted. In the middle, he said, there is a fleshy membrane through which the blood
transmitted from the liver is exuded from the right to the left ventricle. Thus, first pointing out the auricles of the heart he opened its substance, and first he demonstrated to us the right ventricle, its two orifices with their valves. They were small fleshy tissues applied alternatively for the closing of the orifices. Then, in the same way he also opened the left ventricle, showing us its orifices and valves. There I saw all the hard fibers of the heart by which the heart attracts, retains and expels. I saw the wall in the middle which separates the two ventricles of the heart. I saw also the nerves leading from the brain to the heart; likewise the vein encircling the heart which runs from the liver in order to nourish the heart. And the heart was quite filled with blood which he cleansed away with a sponge. When we had seen this, he once more demonstrated to us the vena cava coming from the liver. He opened this vein, and showed its breadth and how it runs upwards. And here, he said, one could get arguments for Aristotle's assertion that the veins begin from the heart. I do not tell, he said, from where they start, but anyone can see it himself. Here you can see how Vesalius nearly only aimed at and tried to launch from time to time new theories. Hippocrates and Galen rather often bear witness to how dangerous this is. [. . . ]

THE TWENTY-SECOND LECTURE, 25 January

THE ANATOMY OF THE LUNG

Mundinus proceeds describing the anatomy of the lung and first he explains the parts of which it is constructed, whence its substance is evident. It consists of three kinds of substance, to wit the vena arterialis, arteria venalis and the aspera arteria. These three vessels are dispersed over the whole substance of the lung, as Mundinus tells here. For the arteria venalis begins in the left ventricle of the heart, and the vena arterialis in the right ventricle. Between them the hard or aspera arteria is placed in the body of the lung. The vacuity between the three vessels is filled up by the flesh of the lung, just as in the liver. And the substance of the lung is covered by a fine tissue. In De usu partium, VII, Galen says that a small nerve runs to the lung by which also the lung ought to get some sensation. Further, Galen, De usu partium, VII, wholly concerns the anatomy of the lung, as the preceeding 6th book pertained to the anatomy of the
heart. And the vena arterialis runs along the gibbous part of the lung, the arteria venalis along its concave part, and in the middle the aspera arteria. For what use this is made so by Nature, see Galen I. c., namely in order that the arteria venalis might receive from the aspera arteria the air to be transmitted to the heart and that the lung might receive its nourishment from the vena arterialis etc. This is the reason of the site of the three vessels in the lung. There are channels so narrow that only air enters but not blood. If, however, they dilate preternaturally by violent movement, then also blood passes out through the lung, yet only subtle blood. Further Mundinus explains how what is contained in the cavity of the chest might come out with the sputum. With this Galen deals in De locis allectis, V: c. 2: if honey or honey water is put on a wound in a lung, it will come out through the lung. For, he said, the aspera arteria is large near the mouth, then it becomes smaller and smaller, until it is extremely small in the lobes or cells of the lung, like the arteria venalis and the vena arterialis. And then the materia contained in the very small vessels filters through and is driven out to the great aspera arteria. See Galen I.c. for the reasons of this, where he says that these vessels stay open because they have in their substance half-circular rings after the shape of the Latin letter C, in Greek called sigmoïdes, to the shape of their letter ς. [. . .]

Previously we have said that the lung is divided into four vessels. In the lung there are five lobes or sacks as in the liver: two in the left and three in the right side. Galen regards the third lobe of the right side as the fifth and says that the middle lobe serves not so much the lung as the descending vena cava, namely in order to be its covering, for it does not move as the other. Thus the lung really has only four lobes. But why has the lung been divided into several lobes? Namely, in order that it should both better fill up the cavity of the chest and also to receive the air in dilating when it inhales. On the movement to which the arteria venalis obeys, see Galen. De usu partium, VI: c. 10, and VII: c. I. There two statements of Galen contrary to each other are maintained, for in the latter he asserts just the opposite to the former, namely that the arteria venalis does not dilate because of the movement of the lung, but only owing to the force of the heart. But I believe that Galen here can be understood in two senses. First that the arteria venalis yields to the particular force of the heart, secondly
that it also obeys the movement of the lung but not directly, namely according to the
dilatation and contraction of the heart. Hence the arteria venalis follows each one of
these movements so that when air passes through the lung, the arteria venalis is also
accidentally moved by the lung through its constriction, owing to its composition, not
however because this movement is caused by the movement of the heart. So much for
the anatomy of the lung.

THE TWENTY-SECOND DEMONSTRATION, in the evening

    When the lecture of Curtius was finished, Vesalius, who had been present and
heard the refutation of his arguments, asked Curtius to accompany him to the anatomy.
For he wanted to show him that his theory was quite true. Therefore he brought Curtius
to our two bodies.

    Now, he said, excellentissime Domine, here we have our bodies. We shall see
whether I have made an error. Now we want to look at this and we should in the
meantime leave Galen, for I acknowledge that I have said, if it is permissible to say so,
that here Galen is in the wrong, because he did not know the position of the vein without
pair in the human body, which is the same today just as it was in his time.

    Curtius answered smiling, for Vesalius, choleric as he was, was very excited: No,
he said, Domine, we must not leave Galen, because he always well understood
everything, and, consequently, we also follow him. Do you know how to interpret
Hippocrates better than Galen did?

    Vesalius answered: I do not say so, but I show you here in these bodies the vein
without pair, how it nourishes all the lower ribs, except the two upper ones, in which
there is no pleurisy. For always here—he knocked with his hands against the middle of
the chest—occurs inflammation and pleurisy, not at the two upper ribs. Consequently,
as this vein also is distant from the heart, as you see, by three fingers’ breadth, it will
always in pleurisy and all morbus lateralis be better to bleed from this vein only; or it
ought to be no difference from what part the bleeding is done, because the ribs are
nourished exclusively by this vein.

    Curtius replied: I am no anatomista, but there can be also other veins nourishing
the ribs and the muscles besides these. Where, please, Vesalius said, show them to me. Curtius said: Do you want to deny the ducts of Nature?

Oh!, Vesalius said, you want to talk about things not visible and concealed. I, again, talk about what is visible.

Curtius answered: Indeed, I always deal with what is most obvious. Domine, you do not well understand Hippocrates and Galen concerning this.

Vesalius replied: It is quite true, because I am not so old a man as you are. —Thus, with much quarrel and scoffing they attacked each other, and in the meantime they accomplished nothing.—

Vesalius said: D. Doctor, I beg Your Excellency not to think me so unskilled that I do not know and understand this.

Smiling Curtius said: Domine, I did not say so, for I have said that you are excellent, but I have rejected the wrong explanation of Hippocrates implying that Galen should have erred in this.

Vesalius replied: I acknowledge that I have said that Galen has erred in this, and this is evident here in these bodies, as also many other mistakes of his. Finally, he showed also his theory about the venesection in the popliteal vein to be true. For in his Epistola he had said, that some wanted to bleed so, not that he himself wholly approves it. It is necessary, he said, first to well understand my theory etc.

When Curtius asked Vesalius not to be angry with him, Vesalius said: not at all, Domine.

And thus Curtius left.