

2014/1/24

COMPENDIUM ANATOMICUM:

OR A

Compendious Treatise

OF

A N A T O M Y

Adapted to the ARTS of

P A I N T I N G and S C U L P T U R E :

I N W H I C H

The E X T E R N A L M U S C L E S of the H U M A N B O D Y

Are represented as they appear when cleared of the *Skin*, the *Membrana adiposa*, and the *Veins* and *Arteries* that lie on their Surface.

W I T H

A concise EXPLANATION shewing their *Names*, their *Origin*, their *Insertion*, and their *Use*.

A Work of very great Service to PAINTERS, STATUARIES, and all Professors of DRAWING and DESIGN; as well as a proper *Introduction* to the Study of ANATOMY for the Use of young Surgeons: And so contrived as to be both an *Ornamental* and *Instructive* Furniture for Surgeons Studies, &c.



L O N D O N,

Printed for JOHN TINNEY, Engrayer and Printfeller, at the *Golden Lyon* in *Fleetstreet*.

M D C C L I I.

P R E F A C E.



THE human Body being the most common as well as most noble Subject of the Arts of STATUARY, PAINTING, ENGRAVING, &c. some Part of the ANATOMY of it ought to be well understood, by every one engaged in the Practice of any of them, who is ambitious of attaining that Perfection which is the Foundation of a solid Reputation.

The Ancients had so great an Opinion of the Knowledge of ANATOMY, that they thought it the most essential Qualification of a good Painter or Statuary; and it was probably for the sake of shewing their skill in that useful Science, that they generally made their figures naked; and however faulty some of them are in other Respects, they seldom fail of displaying a just Disposition of the Muscles, which gives a pleasing Harmony, even to some of their worst Performances.

But the Opinion of the Usefulness of this Study has not been confin'd to the Antients only; several of the Moderns have likewise been very sensible of the great Consequence of it, particularly *Michael Angelo*, who understood it perfectly well, having himself dissected several Subjects; and thought a regular and just Disposition of the Muscles one of the principal Beauties of a good Picture, as we may judge by observing his Works, where he always took care to mark the Muscles justly, according to their Appearance in the several Actions. But he was so fond of shewing his Knowledge in this particular, that he made all his Figures as if they were intended for the Use of Anatomists, hardly sparing his Women and Children: This indeed was carrying it to a Fault, and what we ought to avoid; however he deservedly gained a very great Reputation in Painting, and the Study of his Works may be of great Service to us; only let us be careful to remember, that the Muscles are covered with the common Skin and fatty membrane which occasion them to appear more or less smooth and round according to the Age, Sex, and other Circumstances of the Subject.

Beside *Michael Angelo*, there have been other Masters who have possessed this Knowledge in an eminent Degree, as *Raphael*, *Bacchio Bandinelli*, *Daniel Volterra*, *Pierrino del Vaga*, *Rosso of Florence*, *Francisco Salviati*, and several others who have arriv'd at a firm grand Manner of Designing, by the Assistance of ANATOMY.

It may be thought by some unnecessary, to load the Mind with the intricate Study of ANATOMY, and by that means run the Hazard of falling into a hard and dry manner, when they can learn all they want by drawing after the Life; but if they would consider the Thing deliberately, they would soon be convinced of the contrary; and that it is impossible to make a perfectly true and just Outline even from the Life itself (except by Chance) without this Knowledge; because, not knowing the Office of the Muscles, they cannot tell which ought to appear swell'd, and which not; that depending on their Office and Action. The Truth of what is here advanced will be evident, if we consider the Nature of the Muscles and of muscular Motion. A Muscle is compos'd of a very great Number of fleshy Fibres, like Threads, which run parallel to each other, and are wrapped up and kept together by one common Membrane or Skin; its Middle is fleshy, and its Origin and Insertion generally tendinous; and this last being fix'd to a Bone draws it towards the Place of the Origin of the Muscle. When the Muscles act they contract in Length, and appear to swell in Thickness and Breadth; so that in every Attitude, those Muscles will seem most swell'd, and their Separation from the Neighbouring Muscles appear strongest, that act in bringing the Body to that Attitude and continuing its Motion, while the other Muscles will appear comparatively flat. Now, if the Model could continue any considerable Time, in the Attitude wherein it is placed, with the same Spirit as at first, a Painter might do very well by drawing after the Life; but before you can well have sketch'd out your Figure, the Model grows weary, the Muscles become languid and flat, and he is obliged to have Recourse to a Cord or Staff to support himself in the Attitude requir'd: And then altho' the Body and Limbs may remain nearly in the same Position, yet, the Muscles that properly belong to the Action are not the most swell'd, but those that act in making use of the
Cord

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Cord or Staff for the Support. For Instance, if you should set the Model on one Leg, on Tip-toe, with one of the Arms extended; you would find the Muscles of the Calf of the Leg very strongly mark'd, the whole Weight of the Body at that Time being born by them; but as the Model would be unable to sustain himself long in that Attitude, without some Assistance, it would be found necessary to put something under the Heel to support it, or to support the Body by a Cord, or some other Method that should be found most convenient; and then there will be a very remarkable Difference in the Appearance of the Muscles, those of the Calf of the Leg becoming flatter, while others in some Part of the Body or Arms, which before were at rest, and which are useless in the simple Action you at first propos'd, will become swell'd: Besides, the Muscles of that Leg which supports the Body will be much more strongly mark'd than those of the other: These Differences a Painter ought to be able to account for, and to treat accordingly. From this it must appear, that the Knowledge of ANATOMY is not useless, but, on the contrary, of very great Advantage to a Painter.

Before a young Painter begins to draw after the Life, he should draw after Figures of Plaster of Paris, till he has acquir'd a Freedom of Handling, and a tolerable Knowledge of Light and Shadow, and then he should apply himself to the Study of ANATOMY, so far as it relates to his Profession. By this Method he will make a quicker Progress in his Drawing, will draw with Boldness and Certainty, without Doubt or Hesitation, will be able to judge of the Reasons of the different Appearances of the Body, will know with Certainty some of the greatest Beauties of a good Performance, and make a proper Use of them, and will profit more in drawing after the Life in one Season, than otherwise he could do in many Years. However, I would not be suppos'd to think that the Knowledge of ANATOMY is sufficient of itself to produce a perfect Figure, without the Addition of a good Taste, beautiful Nature, and the Proportions of the Antique; but with these Assistances it will be of infinite Service.

One Reason why ANATOMY is not so much studied by Painters &c. as it deserves, is the Want of proper Assistances on the Subject, especially in our Language: I don't mean that there are not English Authors who have treated it in a learned and judicious Manner; but what they have written, being intended for the Use of Physicians and Surgeons only, contains so much more than is absolutely necessary for a Painter, that it requires by far too much Pains to select what is needful to him, from those innumerable minute Parts of the Body which belong not to his Art. To remove this Difficulty was the Reason of composing these few Sheets, which contain the external Muscles of the human Body explained in so concise and clear a Manner, that whoever will apply himself attentively to them for a short Time, may attain such a Knowledge of ANATOMY, as will be of vast Service to him in the Prosecution of his Studies: For he may thereby render himself a perfect Master of that very Branch which immediately answers his Occasion.

The best Method a young Painter can follow in his Study of ANATOMY is, to learn the Shape, Proportion, Situation, and Manner of the joining of the Bones to one another; their Names; the Shape and Situation of the Muscles; their Names, their Origin, their Insertion, and their Use; then to compare them with some good anatomical Figure of Plaster of Paris, (of which Sort there is an excellent one done by Mr. *Roubillac*) and to draw from it on every Side; and, lastly, to compare it with the Life, by setting a very muscular Man in such Attitudes as will best shew the Muscles you are in any Doubt about.

In this Work two of the Skeletons are taken from *Vesalius*, the other from *Cowper*; the three first Figures are likewise from *Vesalius*, and were drawn by *Titian* for the Use of Painters; the other Figures are taken (with a little Alteration) from *Cowper*, who says their Outlines are taken from the best Masters, and the Muscles laid in from the Life. These Figures are cleared of the Skin, the fatty Membrane, the Nerves, and the Veins and Arteries that appear on the Surface of the Body, in order to shew the Muscles more plainly; and if studied with Attention will be of very great Service to young Painters, Statuaries, Engravers, and all others who would arrive at a Perfection in the Arts of Drawing and Designing.



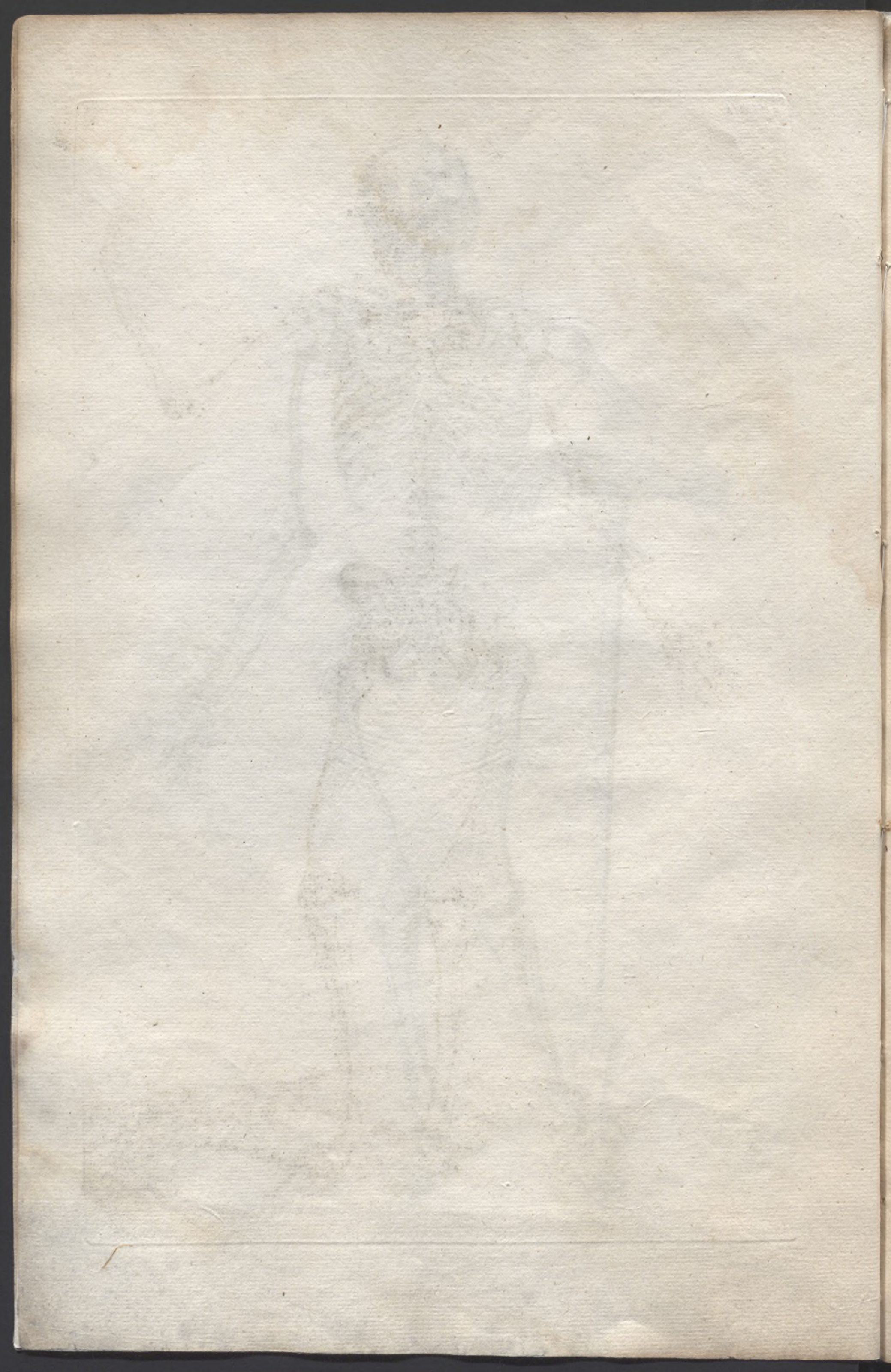
EXPLANATION of Plate I, II, and III.

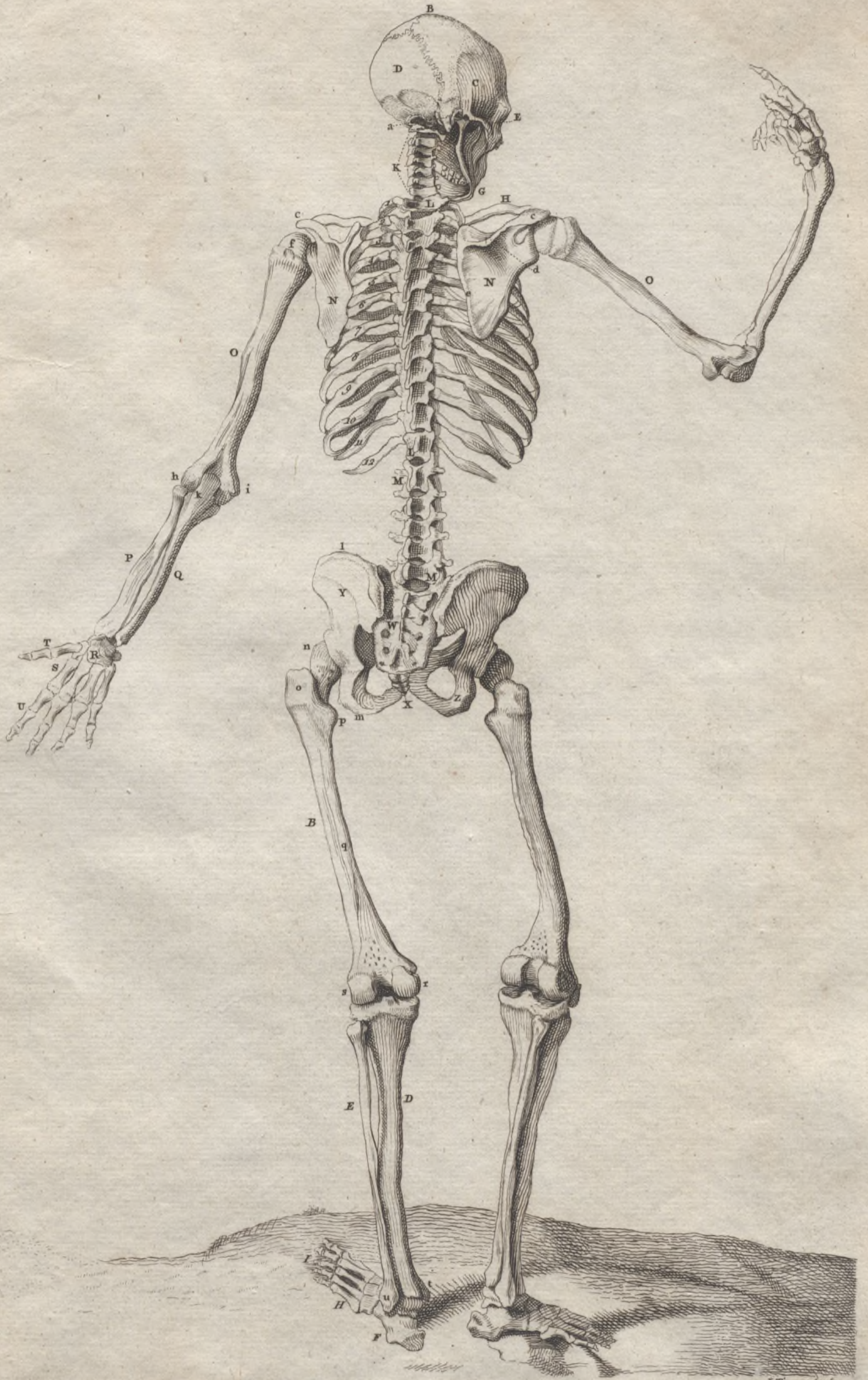
IN the Structure of the human Body, the Bones are what sustain and support it, as its Foundation; and the Muscles are the Parts that move the Bones. The Bones join one another, either in the Manner of a Socket and Ball, or else like a Hinge; and the Muscles being fix'd to them, that is, their Origin to one, and their Infertion to another, when they act, become shorter, and by that Means draw those Bones different Ways, proper to the Uses Nature has design'd them for. The Skeleton or Bones ought to be first well understood; their Length and Size determining the Measure of the several Parts of the Body; and without knowing their Proportion and Situation, we shall not be able to cover them properly with the Muscles, and so make a just and well-proportion'd Figure. In this short Work, we shall not enlarge further on the Explanation of the Bones, than to give their Names, and mark out some particular Parts, where the Origin and Infertion of the Muscles are. However, so much ought to be understood, and you would do well to examine them with a real Skeleton, before you proceed to the Study of the Muscles.

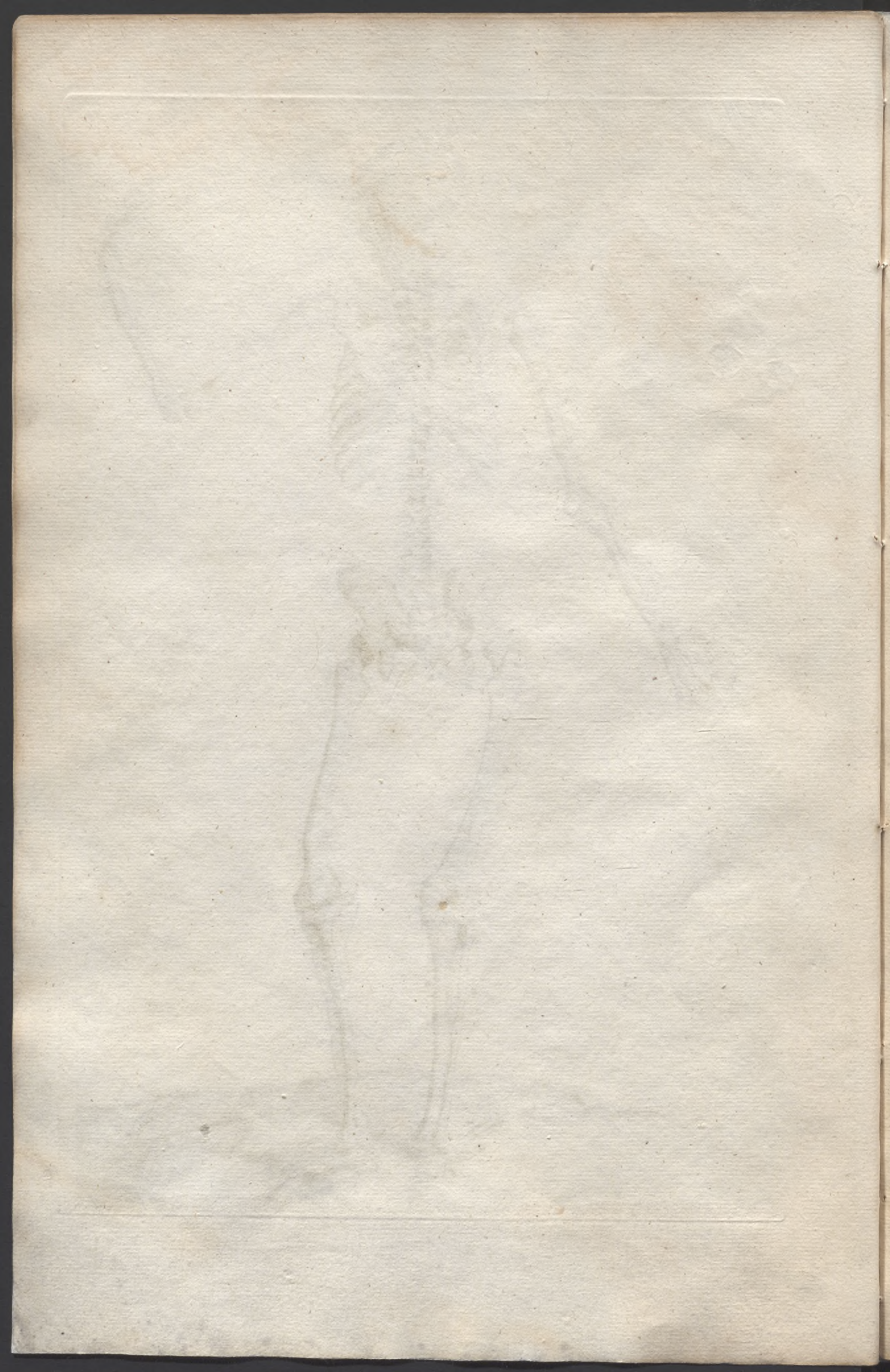
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| <p>A. Os Frontis, or Bone of the Forehead.</p> <p>B. Offa Bregmatis.</p> <p>C. Os Temporum.</p> <p>D. Os Occipitis, or back Part of the Head.</p> <p>a. The Mastoide Process.</p> <p>E. Os Jugale.</p> <p>F. The upper Jaw.</p> <p>G. The lower Jaw.</p> <p>H. The Clavicula, or Collar Bone.</p> <p>I. The Sternum, or Breast Bone.</p> <p>K. The seven Vertebrae of the Neck.</p> <p>L. The twelve Vertebrae of the Ribs.</p> <p>M. The five Vertebrae of the Loins.</p> <p>1, 2, 3, 4, 5, 6, 7. The seven true Ribs.</p> <p>8, 9, 10, 11, 12. The five false Ribs.</p> <p>N. The Scapula, or Shoulder Blade.</p> <p>b. The Coracoide Process of the Scapula.</p> <p>c. The Acromium of the Scapula.</p> <p>d. The Spine of the Scapula.</p> <p>e. The Base of the Scapula.</p> <p>O. The Humerus, or Bone of the Arm.</p> <p>f. The Head of the Humerus.</p> <p>g. A Sulcus, or Furrow, in which passes one of the Heads of the Biceps.</p> <p>h. The outer Protuberance of the Humerus; from which arise the Muscles that extend the Wrist and Fingers.</p> <p>i. The inner Protuberance; from which arise the Muscles that bend the Wrist and Fingers.</p> <p>P. The Radius. } The Bones of the fore Arm,</p> <p>Q. The Ulna. }</p> <p>k. The Olecranon, or Tip of the Elbow.</p> | <p>R. The Bones of the Carpus, or Wrist.</p> <p>S. The Bones of the Metacarpus, or Hand.</p> <p>T. The Bones of the Thumb.</p> <p>U. The Bones of the Fingers.</p> <p>W. Os Sacrum.</p> <p>X. Os Coccygis.</p> <p>Y. Os Ilium.</p> <p>l. The Spine of the Ilium.</p> <p>Z. Os Ischium.</p> <p>m. The obtuse Process of the Ischium.</p> <p>A. Os Pubis.</p> <p>B. The Femur, or Thigh Bone.</p> <p>n. The Head of the Femur.</p> <p>o. The great Trochanter.</p> <p>p. The lesser Trochanter.</p> <p>q. The Linea aspera, or Spine of the Femur.</p> <p>r. The inner Protuberance of the Femur.</p> <p>s. The outer Protuberance of the Femur.</p> <p>C. The Patella, or Knee Pan.</p> <p>D. The Tibia, the largest Bone of the Leg.</p> <p>E. The Fibula.</p> <p>t. The lower Appendix of the Tibia, or inner Ankle.</p> <p>u. The Lower Appendix of the Fibula, or outer Ankle.</p> <p>F. The Os Calcis, or Bone of the Heel.</p> <p>G. The Tarsus, or Instep, composed of six Bones besides the Os Calcis.</p> <p>H. Bones of the Metatarsus, or Foot.</p> <p>I. Bones of the Toes.</p> |
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This Explanation serves for all the three Plates of Skeletons, the Letters of Reference being the same in them all. This Method we follow in the Explanation of the Muscles; where each Muscle is mark'd by the same Figure in all the Plates: And wherever a Muscle is refer'd to, and not explain'd, it may be found explain'd in the former or following Pages, which is shewn by the Number that is annex'd to it.

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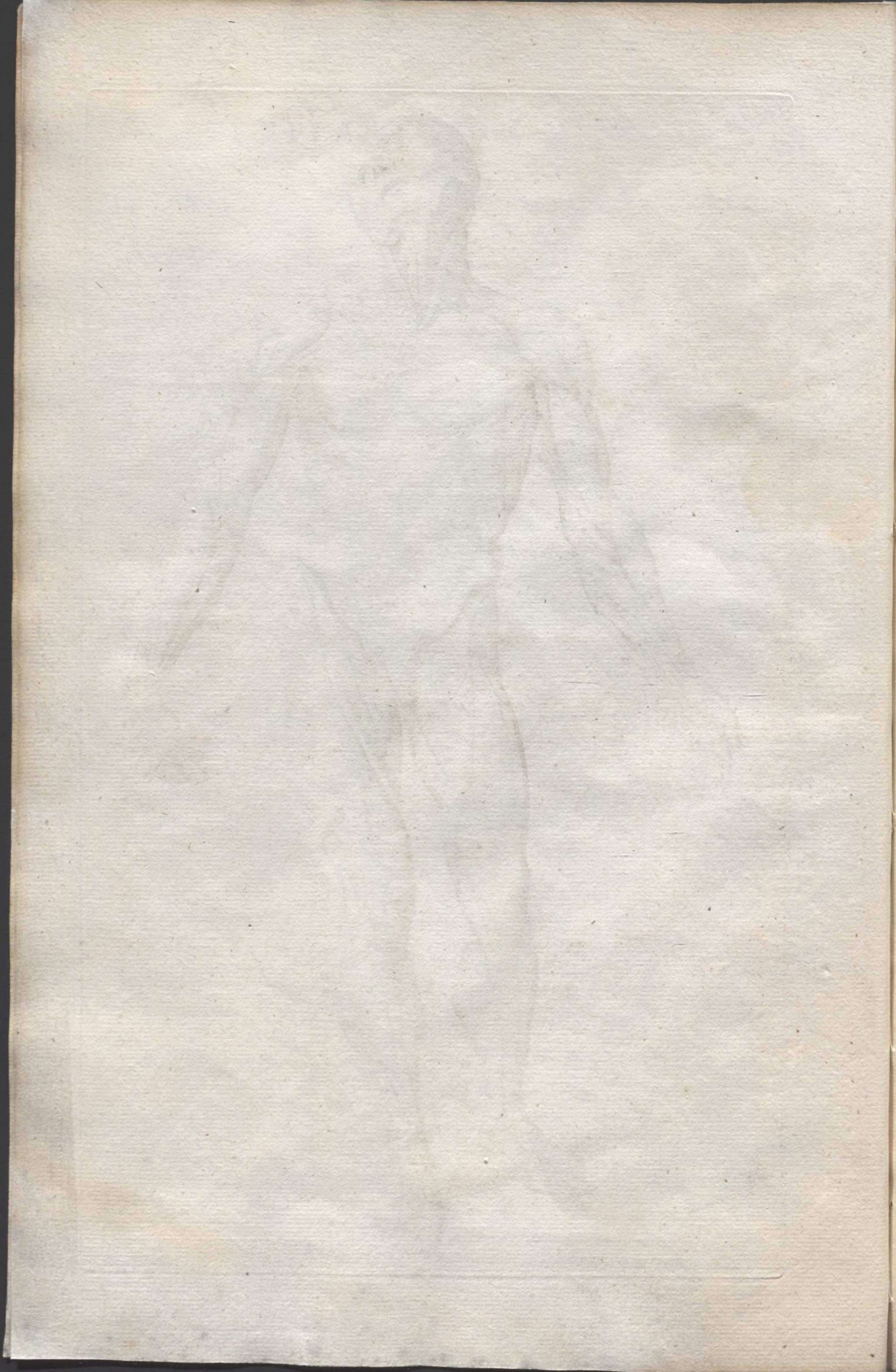
EXPLANATION of Plate IV.

NAME.	ORIGIN and INSERTION.	USE.
1. Sternohyoidæus.	1. Arises from the Sternum and the Clavicula; and is inserted into the Base of the Os Hyoides.	1. Draws the Os Hyoides downwards. The Action of this Muscle is hardly perceivable.
2. Mastoidæus, <i>Pl. V.</i>	4. Ariseth from Part of the Clavicula, from the Sternum, and from the six upper Ribs; and is inserted by a strong Tendon into the Humerus, four Fingers breadth below its Head.	4. Draws the Arm forwards.
3. Trapezius, <i>Pl. VI.</i>	6. Hath two Heads; one of which arises from the upper Edge of the Head of the Scapula, the other from the Processus Coracoides of the Scapula: They both unite about the Middle of the Arm, and make one Belly, which is inserted by a strong round Tendon into the Tuberosity, at the upper End of the Radius.	6. Bends the fore Arm.
4. Pectoralis.	7. Ariseth from the Middle and internal Part of the Humerus; and is inserted into the upper and fore Part of the Ulna.	7. Bends the fore Arm.
5. Deltoides, <i>Pl. V.</i>	9. Ariseth from the inner Protuberance of the Humerus, where those bending the Wrist and Fingers arise; and descends obliquely to its Insertion, a little above the Middle of the Radius.	9. When this Muscle acts, it turns the Palm of the Hand downwards.
6. Biceps.	10. Ariseth a little above the outer Protuberance of the Humerus; and is inserted into the lower Part of the Radius.	10. Turns the Palm of the Hand upwards.
7. Brachizæus internus. <i>This is partly cover'd by the Biceps, and is mark'd with two Figures, to prevent its being taken for two Muscles.</i>	11. Ariseth from the inner Protuberance of the Humerus, and upper Part of the Ulna; and is inserted into the first Bone of the Metacarpus, that sustains the fore Finger.	11. Bends the Wrist.
8. Gemellus, <i>Pl. VI.</i>	12. Ariseth from the inner Protuberance of the Humerus; and is inserted into the inner little Bone of the Wrist.	12. Bends the Wrist and little Finger.
9. Pronator rotundus.	13. Ariseth from the inner Protuberance of the Humerus; and passing by a slender Tendon to the Palm of the Hand, expands itself, and is inserted into the Bones of the Metacarpus, and into the first Bones of the Fingers.	13. Helps the Hand to grasp any Thing closely.
10. Supinator Radii longus.	14. The Perforatus ariseth from the inner Protuberance of the Humerus, and from the Radius; and is divided into four Tendons, which are inserted into the second Bones of the four Fingers. Just above their Insertion, they are perforated or split, to give a Passage to the Tendons of the Perforans, which arises from the upper Part of the Ulna, and is likewise divided into four Tendons, which pass thro' the Perforations just mention'd, and are inserted into the third Bones of the four Fingers.	<i>N. B.</i> The Muscles of the fore Arm are never so strongly mark'd, as when the Hand is shut, or grasps something with all its Strength; because then the internal Muscles acting, the external ones are swell'd more than ordinary.
11. Flexor Carpi radialis.	22. Ariseth from the Sternum, and the two last true Ribs; and is inserted into the Os Pubis.	14. These Muscles bend the Fingers.
12. Flexor Carpi ulnaris.	31. Hath its Name from its having three Heads: The first and second of them arise from near the Articulation of the Os Pubis, and the third from the Tubercle of the Ischium: They are inserted all along the Spine of the Femur.	22. Raises the Body when we lie on the Back, and sustains it when it is bent backwards. It hath three or four nervous or tendinous Intersections or Bands which divide it, and make it appear like several Muscles. The third of these Bands is not in every Body exactly in the same Place; it being sometimes even with the Navel, and sometimes higher. Sometimes there is one of these Bands below the Navel; but it is not so in all Bodies.
13. Palmaris.	33. Arises from the upper and fore Part of the Spine of the Ilium, and descending obliquely over the Thigh, is inserted into the inner and upper Part of the Tibia.	31. Pulls the Thigh inwards.
14. <i>The Mass of Flesh that appears under the Flexor Carpi radialis, and the Palmaris, is composed of the Perforatus and Perforans.</i>	38. Ariseth from the lower Part of the Spine of the Ilium, and is inserted with the two following Muscles.	33. Crosses the Legs in the Manner Taylors are used to sit; from whence it has its Name.
15. Extensor Carpi radialis, <i>Pl. V.</i>	39. Ariseth from the great Trochanter, and external Part of the Femur, and is inserted with the former and following Muscles.	<div style="border-left: 1px solid black; border-right: 1px solid black; padding: 5px;"> These Muscles extend the Leg. When a Figure stands upright, and rests on one Leg, there appear above the Knee certain Swellings, which are made by the Tendon of these three Muscles and the Skin. As soon as the Knee bends, they disappear. </div>
17. Extensor Pollicis, <i>Pl. V.</i>	40. Ariseth from the lesser Trochanter, and internal Part of the Femur: This and the two last Muscles, just above the Knee, make one strong Tendon, which passes over the Patella, to which it adheres; and is inserted into the upper Part of the Tibia.	
20. Serratus major anticus, <i>Pl. V.</i>	41. Ariseth from the upper and outer Part of the Tibia, and is inserted into the inner Os Cuneiforme, and Os metatarsi.	
21. Obliquus descendens, <i>Pl. V.</i>	45. Ariseth from the upper Part of the Tibia, and is inserted into the Bones of the Toes.	
22. Rectus.		38. 39. 40.
31. Triceps.		41. Bends the Foot.
32. Membranosus, <i>Pl. V.</i>		45. Extends the Toes.
33. Sartorius.		
34. Gracilis, <i>Pl. VI.</i>		
38. Rectus Femoris.		
39. Vastus externus.		
40. Vastus internus.		
41. Tibialis anticus.		
42. Gastrocnemius, <i>Pl. VI.</i>		
43. Soleus, <i>Pl. VI.</i>		
44. Peronæus, <i>Pl. V.</i>		
45. Extensor Digitorum Pedis.		



+ The Tibia or Shin-bone which is not cover'd with Flesh

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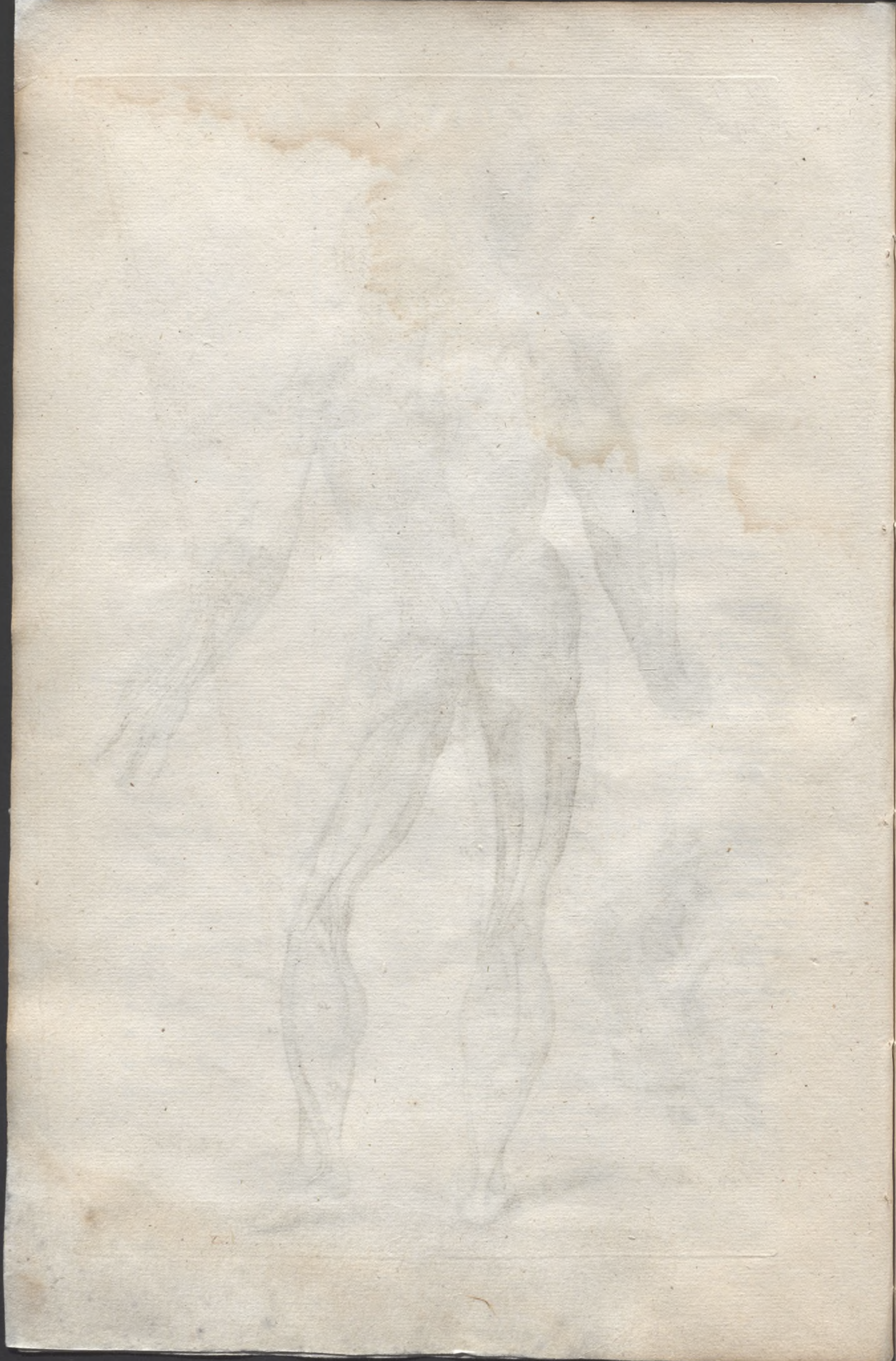
EXPLANATION OF PLATE V.

Name	Origin and Description	Use
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EXPLANATION of Plate V.

NAME.	ORIGIN and INSERTION.	USE.
2. Mastoidæus.	2. Ariseth from the Sternum, and Part of the Clavicula; and is inserted into the outer Part of the Mastoide Process.	2. Draws the Head downwards, and sideways.
3. Trapezius, <i>Pl. VI.</i>		
5. Deltoides.	5. Ariseth from Part of the Clavicula, and from the Acromium and Spine of the Scapula; It is composed of several Lobes or Parcels of Flesh; which all join in one Tendon, and are inserted into the Humerus, four Fingers breadth below its Head.	5. Raises the Arm, and assists it in every motion, except that of depressing it.
6. Biceps, <i>Pl. IV.</i>		
7. Brachiaëus internus, <i>Pl. IV.</i>		
8. Gemellus, <i>Pl. VI.</i>		
9. Pronator rotundus, <i>Pl. IV.</i>		
10. Supinator Radii longus, <i>Pl. IV.</i>	15. Ariseth from the outer Protuberance of the Humerus, and is inserted into the Bones of the Metacarpus, that sustain the fore and middle Fingers.	15. Extends the Wrist.
11. Flexor Carpi radialis, <i>Pl. IV.</i>		
12. Flexor Carpi ulnaris, <i>Pl. IV.</i>	16. Ariseth from the outer Protuberance of the Humerus, and is inserted into the Bone of the Metacarpus, which sustains the little Finger.	16. Extends the Wrist.
13. Palmaris, <i>Pl. IV.</i>		
15. Extensor Carpi radialis.	17. Ariseth from the hinder Part of the Middle of the Radius and Ulna; and passing obliquely over the Tendon of the Extensor Carpi radialis, is inserted by two or three Tendons, into the Bones of the Thumb.	17. Extends the Thumb.
16. Extensor Carpi ulnaris.		
17. Extensor Pollicis.		
18. Extensor Digitorum.	18. Ariseth from the outer Protuberance of the Humerus, and from the hinder Part of the Radius and Ulna: At the Wrist it divides into three Tendons, which are inserted into the Bones of the three first Fingers.	18. Extends the Fingers.
19. Extensor minimi Digiti.	19. Ariseth from the outer Protuberance of the Humerus, and from the upper Part of the Ulna; and is inserted into the third Bone of the little Finger.	19. Extends the little Finger.
20. Serratus major anticus,	20. Ariseth from the six lower true Ribs, and from the first, and sometimes second of the false Ribs, by so many distinct Portions, resembling the Teeth of a Saw; and is inserted into the Base of the Scapula. You see but Part of this Muscle; the rest being cover'd by the Pectoralis.	20. Draws the Scapula forwards and downwards. It likewise assists in Respiration in extraordinary Difficulties. In this Case the Scapula is drawn upwards, and backwards by the Trapezius; and being so fixt, this Muscle then acting, raises the Ribs.
21. Obliquus descendens,		
23. Latissimus Dorsi,	21. Ariseth from the two last true, and five false Ribs, by five or six Digitations; the four uppermost of which lie between the Teeth of the Serratus major anticus. It descends obliquely by a broad and very thin Tendon; and passing under the Rectus, is inserted all along the Linea alba, to the upper and fore Part of the Spine of the Ilium, and to the fore Part of the Os Pubis.	21. Assists in Expiration, and occasionally in discharging the Stomach and Belly of its Contents.
24. Teres major.		
25. Infraspinatus.		
29. Glutæus major, <i>Pl. VI.</i>	23. Arises from the hinder Part of the Spine of the Ilium, from the upper Spine of the Os sacrum, from the Spines of all the Vertebrae of the Loins, and from the seven lower ones of the Back. It passes by the lower Angle of the Scapula, to which some of its Fibres are fix'd; and joining with the Teres major, is inserted with it into the Humerus, three Fingers breadth below its Head.	23. Helps to draw the Arm downwards, and obliquely backwards. This Muscle, at its Origin, is so thin, that it does not hinder your seeing the Action of the Muscles that are underneath it; but towards its Insertion, becomes very thick and fleshy.
30. Glutæus medius, <i>Pl. VI.</i>		
32. Membranofus.	24. Ariseth from the lower Angle of the Scapula, and is inserted into the Humerus, with the Latissimus Dorsi.	24. Helps to draw the Arm downwards and backwards.
33. Sartorius, <i>Pl. IV.</i>	25. Ariseth from the Cavity below the Spine of the Scapula; and filling that Cavity, is inserted into the Humerus, a little below its Head.	25. Draws the Arm downwards and backwards.
34. Gracilis, <i>Pl. VI.</i>		
35. Biceps Femoris, <i>Pl. VI.</i>	32. Ariseth from the upper and fore Part of the Spine of the Ilium: Its fleshy Part terminates at the great Trochanter, were its membranous Part begins: and spreading itself over the Muscles of the Thigh, passes to its Insertion, on the upper Part of the Tibia.	32. Draws the Leg and Thigh outwards.
36. Seminervofus, <i>Pl. VI.</i>		
37. Semimembranofus, <i>Pl. VI.</i>		
39. Vastus externus, <i>Pl. IV.</i>		
40. Vastus internus, <i>Pl. IV.</i>		
42. Gasterocnemius, <i>Pl. VI.</i>		
43. Solæus, <i>Pl. VI.</i>		
44. Peronæus.	44. Arises from the upper and outer Part of the Fibula; and passing under the Channel of the outer Ankle, is inserted into the outer Bone of the Metatarsus.	44. Draws the Foot outwards,







J. Tinney del.





