

THE YOUNG DÜRER

DRAWING THE FIGURE

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and Stephanie Porras

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The Young Dürer

DRAWING THE FIGURE

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Dürer's Limbs

DAVID FREEDBERG

In 1512, at the height of his career, Dürer wrote that “if you wish to make a good figure, you must take the head from some, the breast, arms, legs, hands and feet from others ... for, just as honey is gathered from many flowers, so from many beautiful things one gathers something good”.¹

But in the 1490s he took a different approach. Instead of copying the legs, hands, bodies and faces of others (or those in the works of other artists), he copied his own. Less explicitly interested in beauty, or in reducing bodily form to its essentials (as he would do later), and more concerned with teaching himself how to show the body and its movements, he took himself – and his own legs, hands and face – as model.

Even from the start Dürer must have been familiar with the hackneyed tale of the ancient painter Zeuxis, who, in painting a Venus (or a Helen) for the city of Croton, chose seven young maidens as models in order to extract the best parts of each.² But Dürer's decision to copy his own limbs and face had a different motivation. Before he could even contemplate making a perfect composite, as the story of Zeuxis suggested, he needed to understand how the individual muscles worked, and how they enabled the limbs to move. He wanted to show, first, the muscular contractions and relaxations needed to convey the dynamic potential of the body, and, secondly, the means whereby such movements, as well as facial expressions, could convey emotion. Before he could “paint out of his head without any other aid”,³ as he would later put it, he had to train from what he could directly observe. His later theoretical views were thus preceded by the intensely practical aim of first studying himself.

The Courtauld drawing of a *Wise Virgin* (cat. no. 1) stands at a critical point in his artistic development, exemplifying the tensions between the more conventional approach he recommended in his maturity and the much less conventional one he chose to follow before his trip to Italy in 1494–95.⁴ While its iconographic and figurative type derive broadly from the past,⁵ its aims were altogether more experimental – especially when considered in the light of the much less finished drawing on its verso, where the sheet is provided with the date of 1493 (see opposite).

ALBRECHT DÜRER
*Study of the artist's left leg from
two viewpoints, cat. no. 1v*
(rotated by 180°)

Dürer's *Wise Virgin* leans slightly forward, eyes downcast, her wrist raised as if in salutation. Her other hand tightly holds an upright oil lamp, the traditional symbol of the five Wise Virgins. He must have noticed how his predecessors depicting this subject had wrestled not only with the gripping fingers but also the angle and inclination of the wrist. But if these hands, the contour of the left sleeve, and the failed foreshortening of the right arm seem slightly awkward, the fluency with which the Wise Virgin's hair falls over her shoulders and the single line delineating the airy garland of leaves crowning her head demonstrate the graphic confidence of the young artist. The freedom with which he draws her hair and garland stands in marked contrast to the studied treatment of the folds of the upper part of her peplos and of her left sleeve, as if these folds were still part of some formal – and traditional – exercise.

After drawing this most appealing of Wise Virgins, he turned the sheet over, rotated it through 180°, and drew his own left leg – twice. Then he rotated it back to its original position, and dated it 1493. The verso of this sheet could thus hardly be more different than the recto. Whereas the drawing of the Virgin appears to be complete, the two views of his leg are altogether more cursory, almost brisk in comparison, making no concessions either to finish or to graphic grace. They are much more direct. The view of the leg on the right boldly delineates the contours and muscles of thigh and calf in long and assertive strokes. Dürer does not bother to modulate the lines of the outer thigh on the right, or the cross-hatchings that seem to correct the contour of the inside upper calf on the left. But even though all of this may seem neither particularly elegant nor even anatomically accurate, it is – quite remarkably so.

Dürer carefully shows the bones, muscles and tendons not only of his thigh, hamstrings and calf, but also the smaller muscles of the knee and ankles. The artist studies the thigh and calf as the foot is rotated outwards, revealing his interest in the dynamic possibilities of a foot in contrapposto, and deliberately training himself to convey the contraction and extension of these muscles the pose entails, and the forces that underlie them. For all the scrawniness of his leg, these drawings are remarkable for their anatomical, physiological and kinesiological detail. In fact, they illustrate the entire muscular chain involved in the rotation of the foot with exceptional precision.

But why the left leg twice? It was presumably easier, as a right-handed artist, to draw the contralateral leg. He did so in two different and quite awkward poses, as part of the process of training himself to draw the limbs of the body and finding out how best to convey, through drawing, the potential energy inherent in complex poses.

The drawing on the left shows the leg in external rotation as the artist looks down on it, with the knee correctly bent and the ankle and foot held

in a position of anatomic neutrality. Here Dürer depicts the bulk of the vastus medialis, the profile of the quadriceps muscle, the knee, and the upper end of the tibia. Particularly noteworthy is the way he demonstrates how the distal tendon of the hamstring is inserted just below the knee into the gastrocnemius/soleus muscles that constitute the upper calf.

On the right, he draws the outlines of the sartorius and the quadriceps. He portrays the knee so accurately that one can see the patella and femoral condyles as well as the quadriceps (suprapatellar) tendon; again the calf muscles are carefully drawn. Every part of the foot is correct, with a slight bulge representing the insertion of the Achilles tendon into the calcaneus.

Dürer's decision to place the hip and knee in flexion, and the ankle and foot in mid extension, is deliberate. If he (or any subject) were standing, one would not be able to see the interplay of muscular articulations as clearly – how, when the hip is flexed, the knee must flex as well, and it would be difficult to appreciate either the reciprocal relation of the quadriceps and hamstring or that of the calf and anterior tibial muscles.

In short, Dürer perfectly understood the reciprocal contraction of agonist/antagonist groups of muscles involved in the flexion and rotation of hip, knee and foot. One sees this particularly well in the drawing on the left. The fact that the foot is in a neutral position, as if one were sitting and holding it up slightly, allows Dürer to show the anterior tibial tendon bowstringing across the top of the ankle and inserting into the medial side of the midfoot. With active contraction of the anterior tibial muscle, the gastrocnemius/soleus complex of muscles in the calf relaxes. Dürer even draws the flare of the medial malleolus of the ankle, indicating the flare of the distal tibia, while on the right he draws both this and the padded shape of the insertion of the Achilles tendon into the calcaneus.

So closely does the drawing observe the relevant muscles and bones involved in the rotation and flexing of the leg that it would seem to be the work of an anatomist with the kind of experience Dürer could not possibly have had at this time.⁶ It is almost as if he were born with exceptional powers of observation, possessed of a form of innate expertise which he realised he could hone still further by practice.

Perhaps a short while earlier Dürer had drawn a left leg similar to his own – wearing the same shoe as he does here – in the drawing of a young couple in Hamburg (cat. no. 4). A year or two later, the complex torsion in the legs of *The Prodigal Son* (cat. no. 10) reflected the lessons learned in the Courtauld sheet. Here, however, Dürer boldly removed the shoe from the foot in order to add further anatomical detail as well as iconographic resonance. Yet when he came to making the final print (cat. no. 11), he must have still been dissatisfied, since he covered the front of the left foot with a piglet (though he retained the prominent insertion of the Achilles tendon into the calcaneus, as observed in the earlier Courtauld drawing).

But there is a missing link – or rather, a drawing that represents a critical stage – between the leg studies of 1493 and the *Prodigal Son*. This is the *Youth kneeling before an executioner* (cat. no. 5), presumably of around 1493–94. It depicts almost the same leg and pose as in the Courtauld sheet, but the leg is now bent at the knee, the shoes removed, and – as in the *Prodigal Son* – the calf and thigh are seen from the outside rather than the inside. This limb is even more complex in its pose, since here the toes are flexed inward, the anterior tibialis muscle contracted, and the whole foot also rotated inward, thus further complicating Dürer's initial self-imposed challenge.

In the *Youth kneeling before an executioner* and the *Wise Virgin*, Dürer also experiments with one of the central gestures in his art, the wrist bent backward. More precisely, this is the wrist extension that results from the contraction of the extensor carpi radialis longus and brevis, the extensor carpi ulnaris, and the abductor digitorum. These are muscles that cannot be seen beneath the sleeve of the Virgin at all, but he strives to indicate them in the *Youth kneeling before an executioner*. In this drawing, the wrist is shown only gently extended, with the relevant muscles contracted only slightly; in the *Wise Virgin*, it is bent almost as far back as it can go.

This particular gesture is one of the commonest and most significant in the history of art. It is used for a multitude of purposes in a multitude of contexts – from gentle acknowledgement and announcement (as in many Annunciations) to warding off (as in Adam's gesture to the angel in Michelangelo's *Expulsion from Paradise*),⁷ to support for the head or face. Amongst the precedents for the *Wise Virgin's* gesture is a work which Dürer himself owned (although when he acquired it is unclear), the 1487 drawing (cat. no. 12) he inscribed as being by Anton Beurer, an artist from the circle of Wilhelm Pleydenwurff.⁸ The gesture had already become a crux in almost every representation of the Wise and Foolish Virgins, because of the need to show the lamps held up or down. But Dürer may also have recalled Hans Pleydenwurff's *Man of Sorrows* from the c. 1456 Löwenstein Diptych in Basel, or similar works where Christ raises his wrist to show the wounds in his hands.⁹ This action of the wrist is part of an essential repertoire of gestures, for it subtends – and in many cases makes possible – many of the movements of the hands and fingers that Dürer would continue to study obsessively throughout his career.

In a drawing of the Virgin in the British Museum (cat. no. 2), he had tried out this gesture in the hand emerging from the cuff of a sleeve on the verso.¹⁰ This sheet also contains a remarkable set of fold studies, as well as a beautifully detailed drawing of the fingers of a hand. But it is the drawing of the wrist, here so prophetically emergent from a sleeve, that, neither annunciatory nor cautionary nor apotropaic, would be turned into one



FIG. 16
ALBRECHT DÜRER
Self-portrait at thirteen, 1484
Silverpoint on prepared paper,
273 × 191 mm
Vienna, Albertina Museum,
inv. no. 4839

of the most well-known gestures in all of Dürer's art, that of the palm or fingers pressed to the side of the cheek or temple as a sign not only of weariness or perplexity, but of sadness and melancholy.

JOSEPH KOERNER HAS eloquently discussed the tension between art historians' habitual assignment of epochal status to Dürer's early portrayals of himself and their precise historical context.¹¹ While these works are not in fact the very first self-portraits either in the North in general or in Germany in particular, the modern question of the degree of self-consciousness entailed in the making of these pictures, and their assignment to an epochal 'moment of self-portraiture', persists. More productively, we may consider how such studies might have served Dürer in learning how to reproduce not just the nuances of physiognomy and physiognomic expression, but also how most effectively to convey the expressive movements of the limbs.

At stake in this early moment are the following works – the indeed unprecedented 1484 silverpoint drawing of the thirteen-year-old Dürer (fig. 16); the glowering *Self-portrait* in Erlangen of 1491 (cat. no. 3v); the 1493 *Self-portrait* in the Lehman Collection (fig. 18), in which his own face is juxtaposed with a delicate gesturing hand and a pillow; the painted self-portraits in the Louvre (fig. 17) and the Prado, and finally the supremely authoritative *Self-portrait* of 1500, epochal even in its dating. Closely related to all of these are the drawings in the present exhibition, and a few others. Four show the Holy Family.¹² Almost all of them testify to Dürer's study of hand gestures and of movements of the body, anticipated by the Courtauld drawing; and most are related, in one way or another, to his struggle to understand the connection between movement and emotion. Several raise the question of the puzzling relationship between drapery folds and the study of the movements of the limbs, just as do – most strikingly – the pillows, recto and verso, on the Lehman *Self-portrait*. They also, I think, cast light on the vexed and perhaps ultimately undefinable notion of Dürer's authorial self-consciousness.

These were indeed the years in which Dürer studied not just his own head, but also his hands, in order to better convey the emotions which even their smallest movements entail and imply. All too aware of the nuances of emotion and of proprioception such details could convey, neither the slightest separation of the fingers nor the relationships between them went unattended. Just how closely his examination of the proprioceptive and expressive possibilities of the hand and fingers could be emerges in drawings such as that of the sole hand, as if it were playing a keyboard, at the top of a sheet in the British Museum (cat. no. 2), and of the three meticulously and beautifully drawn hands on the sheet in the Albertina



FIG. 17
ALBRECHT DÜRER
Self-portrait with Sternkraut (Aster atticus),
1493
Oil on parchment, transferred to canvas
56.5 × 44.5 cm
Paris, Musée du Louvre

A 2



FIGS. 18, 19

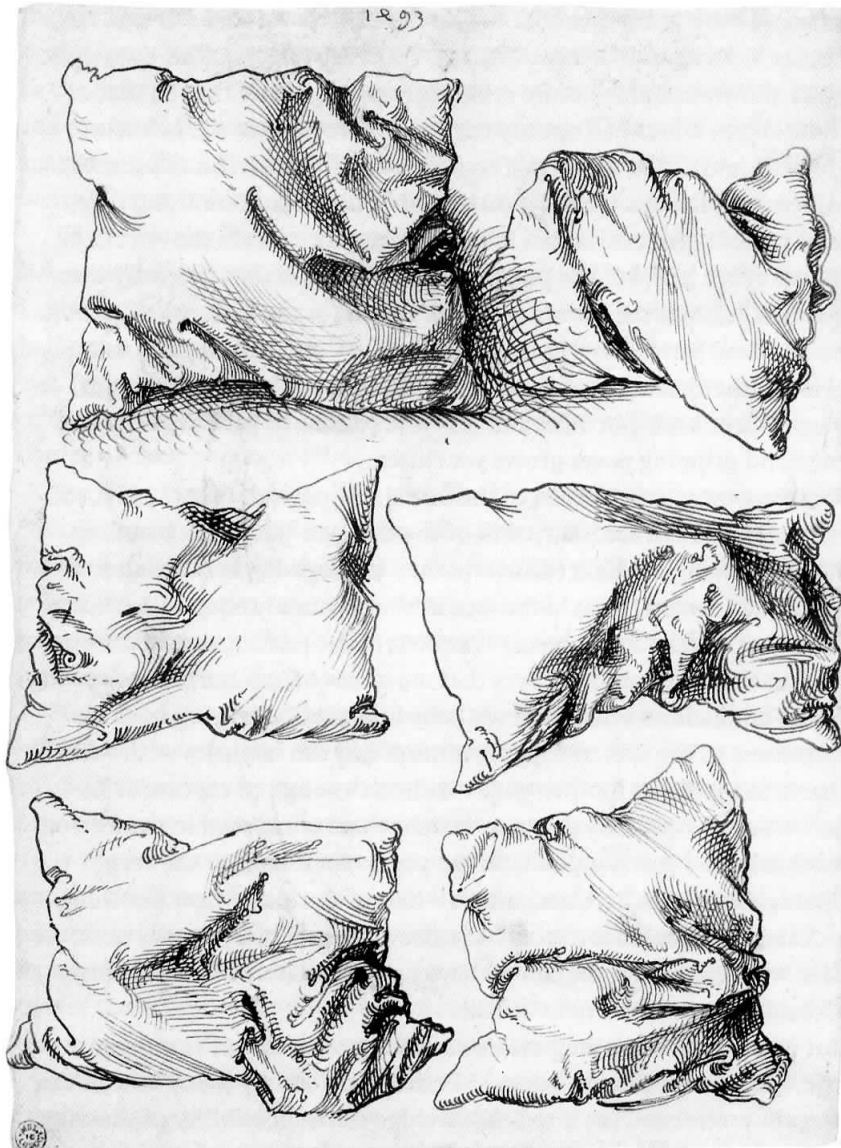
ALBRECHT DÜRER

Self-portrait, study of a hand and a pillow (recto) and Six studies of pillows (verso), 1493

Pen and brown ink, 278 × 202 mm

New York, Lehman Collection,
Metropolitan Museum of Art,

inv. no. 1975.1.862



(cat. no. 7). That these are studies of his own hand is clear if we compare them to the hand in the Lehman *Self-portrait*. But the examination of these and other details is to be found in many of the drawings of this decade showing gesturing hands – hands in prayer, supplication, submission, and a wide variety of demonstrative or grasping actions – including those in all the self-portraits of the years before 1500. Without them, his later, much more famous drawings of hands both in action and in repose are unimaginable.

One of the most striking aspects of the drawing of the *Wise Virgin* is the delicate treatment of her face, modest yet sensual at once. Several of her features – the chin, the lips (in particular the upper lip) and the nose,

for example – are notably similar to Dürer’s earliest painted self-portrait, that in the Louvre, also of 1493 (fig. 17).¹³ But the fingers of his own right hand are shown in a much more refined grasping gesture than in that of the *Wise Virgin*. Dürer had already tried out this action in the *Lehman Self-portrait*, and did so again, as if to refine it still further, on the sheet in the Albertina. Here his hand delicately holds, between thumb and forefinger, a graceful plant form that in its spare elegance recalls the wreath in the *Wise Virgin*’s hair; but the position of the fingers is almost exactly that with which he holds the *Sternkraut* (Aster atticus) in the Louvre *Self-portrait*. Typically, these hands show the various muscles – and tendons and veins – involved in the execution of the gesture. The network of relationships between Dürer’s self-portraits and his close studies of hands in complex gestural and gripping poses grows yet closer.

First, however, let us return to the initial self-portrait of 1484 (fig. 16). It testifies to the extraordinary skill of the thirteen-year-old’s handling of the unforgiving medium of silverpoint – unforgiving because almost impossible to correct, even in the face of the constant unquiet (the “*unruh im Gemäl*” of which Dürer spoke)¹⁴ implicit in the relationship between the face in the mirror and the eyes that must move from mirror to drawing surface. The shadows under his eyes belie his years, conveying both his attentiveness to the task of copying himself and the intensity with which he strove to represent his own gaze – difficult enough to capture as he moved his eyes constantly down to match what he had seen in the mirror with what he had just put down on the paper. Even here, at the very beginning, he studies his own gesture – that of the long finger pointing, as his hand emerges from the cuff of a sleeve whose folds, already here, are studied with great care, though perhaps not as precisely or convincingly as in the drawings of the next decade.

But what could the young man be pointing at, with this searching, deictic – almost apodictic – gesture? Perhaps it is simply to say ‘look, I can at least show *this* hand’, as if to acknowledge the impossibility of showing the other hand, the hand engaged in the drawing of the action, the one here shown emerging from another cuff only to be obscured behind the still undefined wrist.

The same salient finger reappears in the gesture of the Christ Child in the *Holy Family* in Berlin of 1492–93 (fig. 20), who points, also with premature wisdom, at the sleeping Joseph, as if to emphasise that this is his earthly father.¹⁵ Or could it be that the child is pointing to what can be done with line, as in the massive yet unfinished fold against which his father rests, cascading down from the side of the Virgin’s dress all the way to the lower left corner of the drawing? In any case, this somnolent Joseph rests his head on his open hand in a version of the multivalent wrist action we have already described. It may be found in any number of representations of

the aged Joseph at the Nativity, in the hands of the sleeping apostles in scenes of the *Agony in the Garden*, and in Dürer's own work from the *Job* of 1503-04 to the *Saint Jerome* of 1521 (where it is also combined with a pointing finger) and many other places. The action of the pressing of the palm of the hand against the cheek can signify melancholy or sleep, reflectiveness, or even watchfulness; or it can evocatively suggest related states of mind.

The particular form of the gesture in the Berlin Joseph recurs in the Erlangen *Self-portrait*, where Dürer studies himself intently in the mirror. In the Erlangen sheet, he is alert, not sleeping at all, with the palm much higher up, and the base of the long little finger pressed even closer to the eye. It presses against the ends of the eyelids and obscures the extremity of the cornea, as if to emphasise the need to keep a still pose in the course of sketching oneself.

But there is surely more here too, for this portrait shows eyes not just concentrating, but deeply anxious. The gesture entails not just support for the head, but melancholy, as in the famous 1514 print of the subject, where the open palm becomes a clenched hand against which the personification of Melancholia rests her inclined cheek in dark yet watchful reflection (fig. 22).

Here we come to the core of the matter. It is in Dürer's explorations of both the minute and the larger variations of this action that we begin to understand why he chose to represent himself and the movements of his own limbs with such intensity, moving far beyond training himself to draw the proportions and movements of the limbs. The pressing of palm against cheek not only serves to stabilise the head in the course of drawing himself; his worried eyes not only reflect his effort to secure an accurate representation of the physiognomy he sees in the mirror. It is the combination of the action of hand supporting head with the expression of the eyes that establishes the mood of anxiety, melancholy and compassion.

Many of the artist's early drawings and paintings display a similar combination – the 1493 painting of *Christ as the Man of Sorrows* in Karlsruhe (fig. 21); the study of a sleeping or somnolent man with his hand supporting his chin in Berlin, alongside, as we now almost come to expect, a study of a hand (cat. no. 8); and the 1494 study of his newly wed wife Agnes, in which the back of the hand, rather than the palm, is bent beneath her chin (cat. no. 9). Almost every one of these gestures is predicated upon Dürer's understanding of the bent wrist extension and the contraction of the radial and ulnar muscles underlying it.

Albrecht Dürer trained himself to achieve the particular union he sought between bodily movement and emotion by drawing his own limbs and face. The early studies gathered in this exhibition prepare the way for his engagement with the Italian prints he may have already begun copying in Nuremberg, but which he drew with new understanding of the possibilities



FIG. 20
ALBRECHT DÜRER
The Holy Family, c.1492–93
Pen and black ink, 292 × 196 mm
Berlin, Staatliche Museen,
Kupferstichkabinet, Kdz 4174

they offered when he went to Italy in 1494–95. From Mantegna and Pollaiuolo, he carefully copied a wide range of nude bodies in vigorous and strenuous motion.¹⁶ From their works he learned better to understand not just how the movements of the body express emotion, but also how such movements and their correlate emotions could be evoked in the spectator.

It is in this context that the origins, function and effect of the Mantegnesque *Death of Orpheus* of 1494 in Hamburg are to be considered (fig. 23). This iconographically and physiologically complex drawing reflects the lessons he was just beginning to learn from Italy, emphasising the association of complex *contrapposti* of the body and extreme gestures with extreme emotion, even unto death. It comes as no surprise to discover that Aby Warburg first used the term *Pathosformel* in connection with this drawing to describe the expression of pathos through the movements of the body.¹⁷

By now *Pathosformel* has become the standard way of describing the expression of inner emotions via historical formulae in works of art. It describes the ways in which the outer movements of the body – often conveyed by flowing drapery, as in Botticelli, Francesco di Giorgio and Dürer himself – reveal its inner emotion. But for all the attention to the historical sources of what are identified as individual *Pathosformeln*, the physiological and biological underpinnings of this idea – of which Warburg himself was aware – have been much less discussed. *Pathosformeln* survive not just because of artistic convention, or the historical or iconographic tradition, but because of their biological suitability to the expression of an emotion or set of emotions.

The emotions – particularly the primary emotions, as they are often called – are reflected with greater precision in bodily terms than is generally acknowledged (though the ancient theorists had no doubt about the matter).¹⁸ It is for this reason that so many gestures of the hands and actions of the body have survived the test of time and remain readable in the absence of other contextual or cultural cues. It takes no specific knowledge of the biblical texts, for example, to understand the precise meaning and intention of the striking and clearly readable gestures in works such as Dürer's *Flagellation* (cat. no. 19). Viewers may sometimes mistake the emotions that seem to be indicated by the movements of the body, but such misreadings have largely to do with artistic inability, or with damage to those parts of motor cortex or other parts of the neural networks that subtend bodily movement in the viewer. The superior artist is one who consciously or unconsciously knows how best to convey the emotions he or she wishes to convey through the movements of the body.

This conveying turns out not to be simply a passive affair, a one-sided provocation of one body by another: it consists of arousing in the viewer the activation of the same neural circuits that underlie movement, its

preparation and execution, in the performer. The result, in the optimal case, is the arousal of the correct emotions. This will occur even though the viewer does not actually move any part of his or her body. It is not a matter of arousing in the viewer the same outward movements (though occasionally this may happen too), but of arousing the inward bodily simulation of the movements that express the emotion the artist wishes to convey.

From William James and his contemporary Carl Lange, and more recently from the work of Antonio Damasio and his student Ralph Adolphs, scholars are at last beginning to pay attention to the neurological underpinnings of the old Albertian claim that the movements of the body reveal the movements of the soul.¹⁹ Along with the work of scientists like Joseph LeDoux and many others, Damasio's and Adolphs's research offered much evidence in support of the original James-Langean view that movement (and visceral reactions to stimuli more generally) often precedes emotion itself²⁰ – contrary to the more commonly held positions that the emotions generate bodily responses, or that they are more the result of cognitive processing and evaluation than visceral and motor responses.²¹

For several years now the link between movement and emotion has acquired further impetus as a result of the discovery of mirror neurons by Giacomo Rizzolatti, Vittorio Gallese and their colleagues in Parma. What they found was that when a monkey observes another monkey (or human) engaged in a goal-directed action, neurons in the same parts of the observing monkey's premotor cortex, inferior frontal gyrus and inferior parietal lobe fire exactly as they would if they were engaged in the very action they were observing – even if they do not execute that action itself.²²

Despite initial skepticism, the same phenomenon was soon described in the case of humans as well.²³ It has now been demonstrated that works of art showing human actions (or even the traces or marks of human actions) can also activate mirror mechanisms.²⁴ Moreover, as Rizzolatti, Gallese and others have proposed, such mirror responses constitute a form of prerational and spontaneous embodied simulation of movements seen (including, as I have consistently argued, movements shown in pictures) that provide access to the intentions and the emotions that lie behind such actions and movements,²⁵ or – following the James-Lange theory – may actually generate an emotion.²⁶ It had been known for some time that the expression of a basic emotion like fear and disgust activates the same cortical and subcortical regions in the viewer as in the person or animal viewed.²⁷ Now a similar theory could be extended to the sight of the actions that express other emotions as well.

It is for such reasons that *Pathosformeln* are so psychologically and viscerally effective, rather than because of their historical persistence alone, and it is in these terms that we may better grasp the implications of Dürer's



FIG. 21
ALBRECHT DÜRER
The Man of Sorrows, c. 1493
Oil and punched gold leaf on fir,
30 × 19 cm
Karlsruhe, Staatliche Kunsthalle

FIG. 22
ALBRECHT DÜRER
Melencolia I, 1514
Engraving, 239 × 168 mm
Hamburg, Kunsthalle,
inv. no. 10635



awareness of the need to convey to the viewer precisely those movements that express the intended emotion. It as if he knew that in order to arouse a specific emotion, he had to get the relevant movements exactly right, that each nuanced adjustment of muscle and limb made a difference – not only for the sake of physiological accuracy, but for the precise evocation and recognition of the emotions he intended. He learned he could do this by calling forth a sense of the bodily movement that most efficiently correlated with the emotion he needed to elicit. Dürer studied his own body in order to learn how best to represent those movements of the body that could most efficiently evoke the relevant emotions in his audience.

The degree to which the early self-portraits are indices of artistic self-consciousness have been much commented upon. Practically no attention has been paid to the way they testify to Dürer's engagement with the problem of how most effectively to engage the viewer, or how they stimulate the cortical substrate of the movements underlying the kinds of emotion he wished to arouse. How much the drawings discussed in this essay mark a new form of self-consciousness may be difficult to define, but it is clear that in drawing his own limbs both his native ability and his

self-training enabled him to transfer the knowledge of how they worked to paper, and to imbue the viewer with a keen sense of their operationality and effect. Like Alberti and a few of the other great artists of the time, Dürer grasped well *avant la lettre* that the ability to arouse a sense of embodied simulation of the movements of others terminated in nothing less than a form of direct understanding of the feelings and emotions he wished to convey to his viewers.

But there is more. Recent studies have shown that even the sight of one's own face produces a heightened response in precisely the areas activated by mirror responses to the sight of others.²⁸ The same may be said to apply to self-limb recognition (though, in this case, the degree of self-consciousness has additional cortical and subcortical dimensions).²⁹ Dürer's studies of his own limbs would have activated the same areas of the brain as those he would need to activate in his viewers. This would have served the function of ensuring the effectiveness of his drawings as a means of stimulating precisely the cortical circuits involved in the embodied simulation of those actions and thus have led to an understanding of the psychological states underlying such actions. Self-aware copying of one's own limbs produces a heightened awareness of how best to activate a sense of movement in others, in such a way that the relevant emotional condition may ensue. Self-consciousness of one's own limbs in the course of representing them may sharpen this ability yet further.

The talents which Dürer possessed from the outset were unconscious; they were transformed into consciousness and self-consciousness by his study of himself. What he had from nature he transformed into art. 'For truly art is hidden in Nature; who can extract it, has it', he later wrote.³⁰ It thus comes as no surprise that the flower the twenty-two-year-old artist holds in the Louvre *Self-portrait*, should not, as has long been supposed, be an eryngium,³¹ but, as Shira Brisman has recently demonstrated, an *Aster atticus*, known in German as a *Sternkraut*, a star-plant.³² In that carefully explored grip Dürer holds the phytognomic signature of his destiny. "*Myn sach die gat/als es oben schat*" ('My affairs will go as ordained from above') reads the inscription above. 'Therefore he who does not find himself gifted', he wrote in 1512, 'should not undertake [the art of painting], for it will come from influences from above [*öbere Eingiessungen*, meaning the influences of the stars]'.³³ No wonder that he should have paid such precise attention to the alignment of the fingers that held the *Sternkraut*; no wonder that in the *Self-portrait* in Erlangen, in which he seems to look out with such intense and inward awareness of what the stars might hold for him and his talent, he presses his hand to his head. And it is this single hand, long before the hand in the famous *Self-portrait* in Munich of 1500, that surely serves as an indicator of his identity.³⁴

IN BLOMBOB CAVE over 70,000 years ago, artists on the southernmost shore of Africa pushed their hands into ochre-filled abalone shells and pressed them on to the walls of their grotto; over 40,000 years later they blew powdered earth of different colours over their hands to produce stencilled images in the hand panels in El Castillo and Chauvet; later yet they did so in the Cueva de los Manos in the province of Santa Cruz in Argentina, and in many other times and places – in Borneo, North Africa and the North American Southwest. This self-consciousness of the artistic possibilities of the limbs of the self has long been taken by anthropologists as proof of the link between the emergence of art and the emergence of homo sapiens on the evolutionary scene. Cognitive awareness of the self, as demonstrated by the representation of the parts of the artist's body, is almost certainly a defining feature of the emergence of human culture; and this awareness now turns out, as we see so clearly in the works of vast epochs later, to enable the representation of movement, action and emotion.

If one's own digits and limbs provided the first occasions for self-aware representation, perhaps even more so than the stars at night or dreams, when did faces supervene? Dürer began with his own, and then went on to train himself in the representation of his limbs and of the ways in which limbs were constrained by the folds that contained them. Upon his first encounter with Italy, initially in print and then in reality, he came to realise that drapery folds need not imprison or traduce the movements of the limbs they covered; they could also reveal and enhance them. All along Dürer's studies of folds were involved with the representation of the face. In one early drawing after another faces and limbs are accompanied by drawings of drapery, either in garments or as firmly folded and creased pieces of cloth.

But the involvement of faces in folds could be still more intricate and intimate. Beneath the careful study of the hand gesture in the Lehman *Self-portrait* is a pillow. All Dürer seems to be doing here is studying its folds. But then one notices a face, perhaps the one emerging from the left side of the pillow. At this point noses start appearing at the various corners of this pillow, and then on its contour and within its surface too; it is enlivened with multiple intimations of physiognomic expression. The mere suggestion of a facial feature is sufficient to make one invest those dead folds with life. Turn the page over and the six pillows on the verso present more folds yielding to faces (fig. 19). As soon as we see one, we look for more. There is good reason for this investment of cloth with expressive facial configurations, however crude or caricatural they may seem to be. Dürer is studying the faces in the creases before moving on to study the creases in the faces.

But why the interest in drapery in the first place? Dürer's first aim was to train himself in the precise representation of drapery that all but obscured

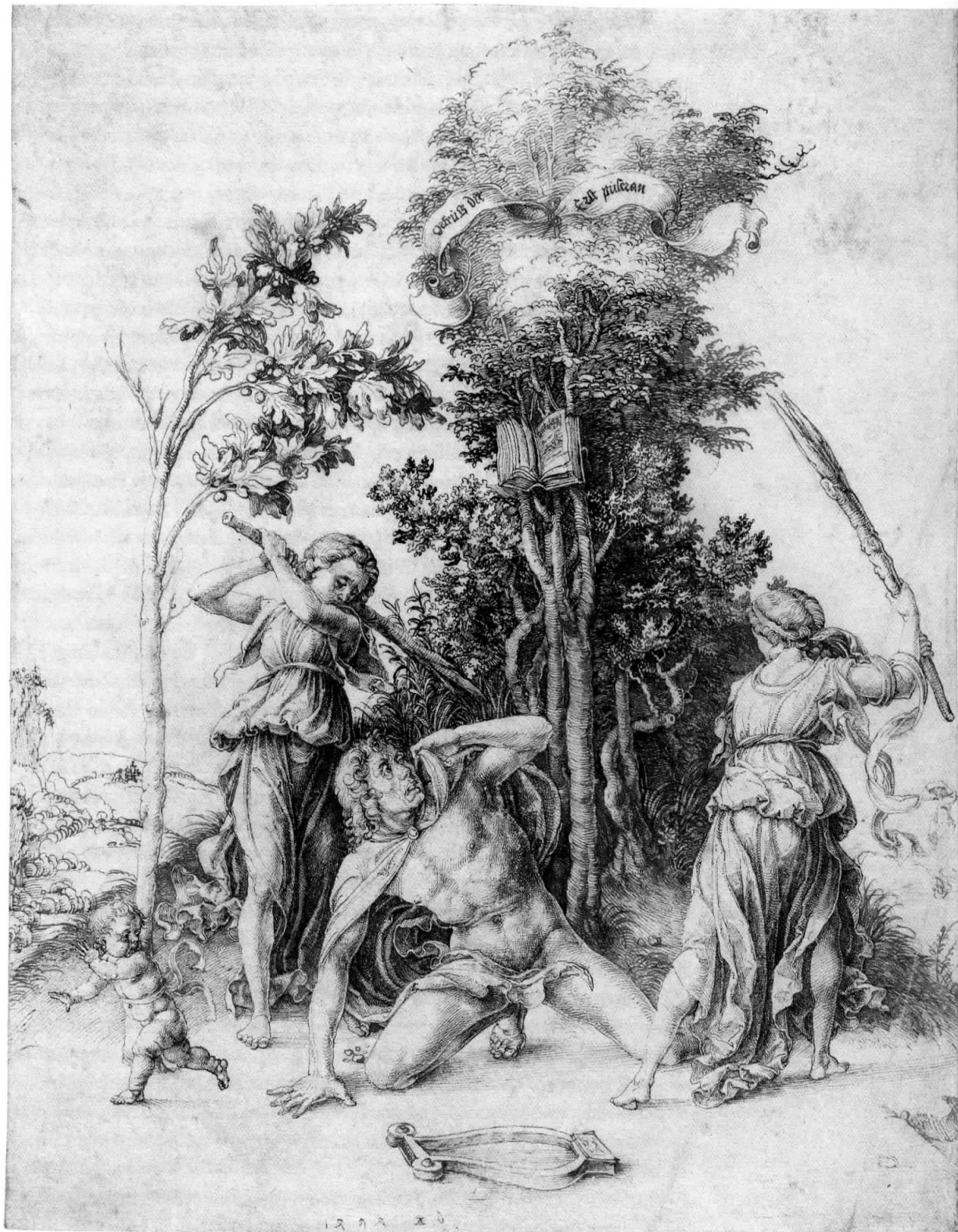


FIG. 23
ALBRECHT DÜRER
The Death of Orpheus, 1494
Pen and brown ink, 289 × 235 mm
Hamburg, Kunsthalle,
inv. no. 23006

the limbs that lay beneath them. He had to show how he could outdo not only the best of the Netherlandish and German painters in the representation of folds, pleats and creases, but also the more local work proceeding from Martin Schongauer and his school, and from the group of Strasbourg draughtsmen now known by the collective name of the 'Master of the Drapery Studies' (see cat. nos. 16, 17).³⁵ He did this with great and sustained intensity, not only investigating the inner passages of these labyrinthine folds but also insistently trying to produce some smoother and more graceful line that might yet emerge from the sharp angularity of the rest (see cat. no. 2). At the same time, it is as if he were seeking, as Buck and Porras observe of the drawing of the Wise Virgin, to rise "to the challenge of making the body perceivable under the voluminous drapery".³⁶ Soon his study of the engravings of Mantegna and Pollaiuolo suggested ways of arriving at a yet keener sense of the life of forms beneath the drapery. At the same time, he intensified his study of the emotional dimension of gesture.

It is no accident that for Warburg the notion of the *Pathosformel* should have arisen not only out of his study of the drapery of Botticelli, but even before this of the extraordinary figures of the Thracian women – maenad-like in their wildness – in Dürer's drawing of *The Death of Orpheus* (fig. 23).³⁷ In a work such as this, it is as much the movements of the drapery as those of the body that most effectively convey to the viewer the inner turbulence of the protagonists of the scene.³⁸ There is no deeper pathos than this rare portrayal of Orpheus, the charmed musician about to die for having introduced the vice of pederasty into Thrace. His movement

FIG. 24
FERRARA
The Death of Orpheus, last third
of 15th century
Engraving, 146 × 216 mm
Hamburg, Kunsthalle,
inv. no. 22



and that of the two women is echoed in the thyrus-like club on the right and the movement of the trees on the left – replacing the firm upright of Dürer's prototype (see fig. 24). Only an artist who had studied the human body in the ways described in this essay could have achieved such a marriage of nature and pathos, thus extending the lessons of the landscapes he had so keenly observed and painted on his journey across the Alps. Indeed, until this moment his representation of landscape features had themselves been almost entirely static. From now on he was liberated to expand the boundaries of self-representation beyond anything he had learned from his predecessors. What had started off as conscious training could become unself-conscious skill, utilised nonetheless in some of the most self-conscious representations of the self yet known. It also liberated him to explore the relations between movement and emotion in a manner that could have been foretold from the very beginning of his art, and from the self-portraits from 1484 through 1493. The possibilities of the genre were to be developed to ever greater heights after his first visit to Italy in 1494–95, where he learned how drapery could reveal not only the movements of the body beneath it, but also the accompanying agitation of the soul.

Dürer's study of his limbs as emotionally expressive and capable of arousing the desired emotion in a viewer led him to abandon the old forms of representing drapery. He abandoned the crisp artificiality of the drapery folds he had perfected before his trip to Italy in favour of the more flowing and more revealing forms that could transmit a sense of the movements of the body viewed.³⁹ The drawings in this exhibition represent the first critical steps in Dürer's developing understanding of the body, and of the ways in which its movements could not just show emotion, but rouse the equivalent sense of torsion, tension and pathos in the bodies and minds of his viewers.

- 1 "... willt ein gut bild machen, das dw van etlichen das hawbt nemest, van anderen dy prust, arm, pein, hend vnd füst ... zw gleicher weis wy daz hönig aws vill plumen zw samen getragen würt": Rupprich 1956–69, vol. 2, pp. 120–21; Panofsky 1943 (1948), p. 278.
- 2 Rupprich 1956–69, vol. 2, pp. 125–26, note 5, citing the possible influence from Alberti's *De statua* (Alberti/Janitschek, pp. 150–51 and 198–99). For the classic analysis of all these passages in Dürer's writing, see Panofsky 1943 (1948), pp. 277–80.
- 3 "van freyen gemell, daz alien an alle hilf aws der fernunft gemacht würt": Rupprich 1956–69, vol. 2, pp. 95–96; Panofsky 1943 (1948), p. 279.
- 4 While there still remains some discussion about the dates of Dürer's first Italian journey, a detailed summary of the evidentiary material is now available in Eser in Nuremberg 2012, pp. 542–44. For a discussion of the trip see also the Introduction in this volume.
- 5 For example, the *Wise and Foolish Virgins* sculpted on the nearby cathedrals of Freiburg, Strasbourg and Basel as well as the series of engravings by Schongauer which Dürer copied in one form or another (see cat. nos. 29–38).
- 6 I am grateful to my friends Fortunato Battaglia, MD, and James Whalen, MD, for their careful analyses of these drawings. The description in this paragraph comes largely from Dr Whalen, reflecting his many years of dissecting and operating on the foot.
- 7 On cortical responses to precisely this gesture, see Battaglia *et al.* 2011.
- 8 See the discussion now in Suckale 2009, p. 207, as well as Rupprich 1956–69, vol. 1, p. 205 fn. 2.
- 9 Illustrated in Nuremberg 2012, no. 56, p. 342.
- 10 He also used it, inverted, in his drawing of Urania (cat. no. 24).
- 11 In Koerner 1993, especially pp. 8–33.
- 12 On the verso of the Erlangen self-portrait, on the recto and verso of the British Museum drawing (cat. nos. 2 and 3), and the *Holy Family* in Berlin, inv. no. KK no. 4174.
- 13 As Stephanie Buck noted in London and New York 2012, p. 63.
- 14 "Die 'Unruh im Gemäl' vom der Dürer spricht, hat ihre Ursache in eine eigenartigen Beweglichkeit des Blicks, die jede strenge Fixierung des Augenpunkts ausschneit": Pächt 1977, pp. 107–08.
- 15 As in Koerner 1993, p. 14.
- 16 Including Mantegna's *Battle of the sea-gods* and *Bacchanal with Silenus* (figs. 30, 47).
- 17 Hurttig in Cologne 2012, especially p. 24, and Wedepohl 2012, pp. 34–41.
- 18 See, for example, Ekman 2003 for an updated restatement of the now classic if still controversial account of the primary emotions. Of course this claim does not in any way exclude the fact of local and contextually determined variations.
- 19 James 1890; Damasio 1999; Freedberg and Gallese 2007.
- 20 See James 1890, especially pp. 449–50; LeDoux 1996; Adolphs 2002; and Adolphs 2004.
- 21 Nussbaum 2003.
- 22 The two basic announcements of the discovery made a few years earlier are Rizzolatti *et al.* 1996; Gallese *et al.* 2006.
- 23 For example in Rizzolatti *et al.* 2002.
- 24 Battaglia *et al.* 2011; Umiltà *et al.* 2012; cf. Freedberg 2007, as well as my forthcoming book on the neural substrate of responses to art.
- 25 As, for example, in Gallese *et al.* 2004, Freedberg 2009 and Keyser *et al.* 2010. The slightly misleading term 'shared representations' – in the case of both movement and emotion – is used particularly by Jean Decety in his studies of empathy, as in Decety and Summerville 2003; Decety and Jackson 2004.
- 26 Freedberg 2007; Freedberg and Gallese 2007.
- 27 As in Wicker *et al.* 2003.
- 28 Much work has been done on self-face recognition, which, significantly, seems to activate right-brain more than left-brain circuits. Far less research is available on self-recognition of limbs; see Uddin *et al.* 2005.
- 29 Including the deactivation of resting state or default networks in the brain; see Uddin *et al.* 2005 and Wicker *et al.* 2003 for further references.
- 30 "Denn wahrhaftig steckt die Kunst in der Natur, wer sie heraus kann reissen, der hat sie", and he continued, altogether significantly, "Überkummst du sie, so wirdet sie dir viel Fehls nehmen in deinem Werk": Rupprich 1956–69, vol. 3, p. 295.
- 31 On erotic and aphrodisiac associations of the eryngium or *Mantreu*, see now Brisman 2012, p. 195, and Koerner 1993, p. 31.
- 32 Brisman 2012.
- 33 "Zw der kunst recht zw molen ist schwer zw kumen. Dorun wer sich dortzw nit geschickt fint, der vnderste sich der nicht. Dan es will kumen van den oberen ein giessungen": Rupprich 1956–69, vol. 2, p. 113; Panofsky 1943 (1948), p. 280.
- 34 Consider the similar claim – on different grounds – for the single hand in the Munich *Self-portrait* of 1500, as in Brisman 2012, p. 206.
- 35 See Roth 2001, pp. 21–29, and Roth 2009, and now the excellent few pages of Roth 2012, pp. 46–51.
- 36 Buck and Porras in Nuremberg 2012, no. 177, p. 510.
- 37 See Wedepohl 2012.
- 38 See Didi-Huberman 2002 for a brilliant exposition of the movements of the drapery; also of course Freud 1907, always cited in this connection.
- 39 Compare, for example, his *Philosophy* (cat. no. 21) with that of the Wolgemut workshop of about the same time (cat. no. 23).

