

ANTONY GORMLEY

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There are only two subjects which interest me: body and space, or experience and extension.
The human condition can only be addressed through issues of architecture and the body.
Antony Gormley [1]

A SPACE FOR DRAWING

Like sculptors throughout history, from Michelangelo and Rodin to David Smith and Joseph Beuys, Antony Gormley draws. Drawing forms a major component of his creative output and he even possesses a specifically designated drawing studio. Over the years, his output has been huge and without the playful exercise of drawing there may even have been no sculpture. Yet the drawings should not be read as sketches for the sculptures but rather as part of a continuing dialogue with them. [2] According to Gormley, his work is not generic, symbolic or emblematic, but rather tries to connect the subjective and the collective in the most direct way. Given that each work "comes from a lived moment of a particular body, at a particular time, in a particular position," [3] it is not surprising that drawing forms such a central part of his practice: drawing by its very nature is the most direct indexical record of a particular body in time and space. It is the most direct form of communication between mind, eye and hand and is an intensely personal experience which offers a space for privacy and thinking.

Gormley has been alive to the significance of drawing since the outset of his career. When writing the first "proprioception" exercise for his students at Maidstone College of Art in 1978, Gormley suggested: "Feel your body in space and make a note of the differing reach of your limbs and their articulation. Try to feel from the inside out, not applying a boundary to the sensations, but thinking of the body as a planet with differing orbital influences... The object is to extend the clarity of perception as far into the boundaries of experience as possible. Where the boundaries of solid to space become less clear and the forces acting on you become more so." [4] This heralds what would become a mainstay of his entire artistic project: the practice of using his own body as the primary testing site for perception based on the experiential and on a felt relationship to space. Yet this text also draws attention to a further issue: does a line actually have to be inscribed to constitute a drawing? [5] In the final sentence he comments: "I suggest that you fold your piece of paper in half and use the fold to suggest a meridian about the pelvic region and that you concentrate on half of your body at a time," [6] therefore already privileging paper itself as a way of thinking about the body in the most direct way possible. By the act of merely folding it, he "draws" a line to help determine his relationship with space and what is contained in it. His notes anticipate the development over time, demonstrated in this exhibition, in which "the differing orbital influences" - rather than just the body-form itself - have become increasingly prominent in Gormley's work. Significantly it has been through exploring a traditional feature of drawing - the pure inscription of line - within his sculpture that Gormley has been able to do this.

Even at the beginning of his career, Gormley was starting to investigate the possibilities of sculpture as drawing by inscribing a continuous line on the surface of a stone, seeing how the line affected the stone and the stone the line. [7] The resulting patterns (SKIN, 1977-78) connect to sketches of that time which explore how the morphology of an object changes when its bounding skin is repeated skin over skin, as in the annular rings of a tree (FRUIT OF THE EARTH, BLACK PEARL, 1978). [8] These early examples also show how drawing and sculpture have continually played off one another in his work. This essay explores the nature of that inter-relationship through thirty years of Gormley's artistic practice and examines how the emphasis of much of his output in both mediums has shifted from a concern with enclosing form to one of drawing space.

DRAWING THE BODY

To draw the body has been a central preoccupation of artists since the Renaissance. [9] But what is it to draw the body? The earliest drawings in this exhibition already accent several of the themes found throughout Gormley's work, to which the body is central. [10] Typically, the drawing is not accomplished in any illustrative sense - he has no interest in portraiture or in conveying accurate details of the face and frame - but through capturing a Gestalt in order to give emphasis to the subject of the life within. As he wrote in 1979: "Drawing is an attempt to fix the world, not as it is, but as it exists inside me." [11] In the first three drawings exhibited here, dating from 1981-83 (UNTITLED, 1981 MANSION, 1982 and UNTITLED, 1983), the body and head are rendered directly in charcoal and oil, with the line disclosing in each work something of the figure's inner workings. The body, with its external channels linking to the inner space it occupies (consciousness of mind, the locus of being), is already present as the main concern, and in MANSION (1982), the outer body also tellingly reveals a trapped interior one, connected to its schematic host via the five pathways of sensory perception.

While connecting to Gormley's philosophical interest in the psychological architectural boundary between inner and outer experience (with the skin as the liminal boundary between internal and external space), the notion of an inner body enclosed in an outer one also bears obvious connections to his technical process as a sculptor. To make his first characteristic lead body-case sculptures, his own body first had to be contained, claustrophobically, within a second shell (a wet plaster wrapping which sets hard in situ) in order for the final stage of the sculptural work (the lead casing) to be accomplished, as in THREE WAYS: MOULD, HOLE AND PASSAGE (1981-82). This process of encasing directly from the body has been fundamental to his practice as a sculptor ever since, even if the completed body-form was later made from other types of metal or took different forms, as in the recent work APERTURE XI (2010). The content of the first three drawings, on the other hand, points towards Gormley's wider desire as an artist to register the human condition and to connect with the world, and the heaviness of mood inculcated perhaps from failure properly to do so, together with the sense of dependence on (and frustration with) the demands of house and home, creates a telling emotional effect. In short, these drawings suggest something of what it is to be human. [12]

Part of the mood of these charcoal and oil drawings is conveyed by Gormley's characteristic choice of black to block out form. The areas denoting brain and house are massed in with a heavy black pigment mixed with oil which lies densely on the surface like a thick cake or mask and whose material density both has a relationship to the nigredo stage of alchemy and seems to connect closely to the choice of lead as the prevalent metal that Gormley used to encase his body-forms up to the mid-1990s. [13] The darkness ensuing from this very particular choice of materials invokes the high degree of meditative introspection which is found in both Gormley's drawings and sculptures of this time.

Darkness also fuels the extraordinary series of much smaller works on paper that comprise the BODY AND LIGHT series dating from the beginning to the middle of the 1990s. In this large group of drawings BODY AND LIGHT (some thirty or so of which are exhibited here), blackness pervades the images even more intensely, partly through the nocturnal subject matter and partly through juxtaposition with areas of light revealed by the contrasting white of the blank paper. [14] Charcoal outlining is abandoned and a new, more washed effect (achieved through dispersing the pigment in enough water to totally saturate the thick paper) leads to a softer, smudged outline more akin to watercolour technique. Central here is the welcoming of random behaviour of the materials: line acquires a speed and quality of its own as the pigment engages with the paper and there is freedom of activity in the loss of control that ensues. In READY (1991), for example, the body's silhouette is transformed at the limbs: the damp paper affects the flow of pigment, and the distorted outline, together with the softness of the edges and the image's tonal variation, creates a compelling sense of atmosphere. One recognises here the sensation of engaging with nature, of the mind becoming lost in meditation and of the body melding into the sentient world around it.

A number of different subjects are encountered in this series: the characteristic and recognisable shape of a blocked-out head (but with no visible identifying facial features); a complete figure seen in solitary silhouette, standing or stretched out against a night sky; the same figure apparently floating or submerged in water; a couple (Dante and Virgil?) standing close together in a Romantic tree-lined setting [15]; drawings of vegetal growth and of the horizon line (which to Gormley represents the perceptual limits of the body's world); abstracted images of copulation and conception; and individual references to familiar body parts such as eye and brain. The brain - as the perceptual and conceptual registering space of the body - recurs as a dominant motif throughout the drawings, and can be seen schematically rendered in BRAIN FIELD I (1993). Through quiet contemplation the viewer can empathise both with the bodily sensations and the mental images evocatively suggested by these works which, although small in scale, open up a much wider space to dream. Unlike the earlier drawings, the defining characteristic of the BODY AND LIGHT series is their poetic response to the elements of earth, air and water - the natural materials also used to make the work. Throughout his career, Gormley has worked with the particular qualities and the integral colour of each substance he is using: black pigment, brown earth, red blood, yellow oil and so forth. The nature of the materials has enormous importance: they are also the subject and their ongoing rootedness to the earth itself is an essential signifier.

Not surprisingly, the drawings in this series were mostly executed in the countryside, in the environs of Coniston Water - an area of outstanding natural beauty in the English Lake District. Many relate to sensations of the body in nature, far removed from the exigencies of daily urban living, above all in the crepuscular reaches of the night. In the twilight zone of this penumbral environment, human scale is pitted against the macrocosmic, planetary perception of space. In SEARCH (1993), for example, the viewer is invited to identify him-/herself with the figure, to float above the world and to ruminate upon it, imaginatively, from the sky.

Focusing on the body as a being in the world, connected to it through gravity and weight, Gormley has continually explored the whole repertoire of postures that the human body can hold in his sculptures - and this concern is equally evident in the early drawings. COMMUNE IV (1991) and DRAW (1991) reference the extended arms or "wings" found in early sculptural studies (begun in 1989) which would culminate in ANGEL OF THE NORTH [Gateshead] (1995-98) and, inversely, the crouched figure in the drawing HOLD II (1993) reprises the pose of the sculpture HOLE (1981), suggesting an existential relationship of the figure to the darkness of space: the posture of the full grown man is reminiscent of a foetus in an amniotic sac, reflecting a typical concern of the artist with parthenogenesis and conception.

As mentioned, many of the BODY AND LIGHT drawings suggest the sensation of floating and the weightlessness of the body, in stark contrast to the heavy lead and iron sculptures Gormley was making at this time. The washed effect of the brush technique used in these drawings lends itself particularly to conveying an impression of submersion in water as the blurred body is seen FROM BELOW II (1996), from above (PASSING BELOW II, 1996, and BODY AND LIGHT, 1992) and from somewhere in between (FLOAT, 1993). This floating sensation is also accompanied by a feeling of lightness - the body in UP (1994) reaches through the water towards air and light in a gesture of reaching out. Lightness is also conveyed through suspension: the figure in the drawing SOVEREIGN STATE VIII (1993) hangs motionless in space, pendulous and dormant, kept alive by tubes, in marked contrast to its grounded form in the earlier sculpture of 1989-90 also entitled SOVEREIGN STATE (1989/90). In essence, this contrast illustrates the fundamental difference between the sculptures and drawings of this period: whereas the drawings address and convey the mysterious feeling of weightlessness, of total immersion in water or of miraculous suspension above the world, the sculptures with their heavy lead (and increasingly, iron) casings are inevitably still rooted to the ground, to the element of the earth. Akin to poetry, the drawings can engage imaginatively with imponderability, whereas it is not until later that the sculptures achieve this so effectively. For although Gormley begins to explore sculptural suspension from 1990 onwards (as in STILL FALLING I, 1990/91), the first of a group of hanging works made in cast iron), these suspended works - like the lead body-forms which dominate his sculpture from 1981 to the mid- 1990s - still stress containment through their emphasis on the outer, unbroken skin. Despite the air that is contained in them (they are cast, rather than solid), the hanging forms appear deliberately heavy rather than light and suggest mass rather than volume.

While many of the BODY AND LIGHT drawings share the concern of these sculptures with the continuous membrane of the skin, a contrary tendency is nevertheless to be found in some of the drawings, which display a zone of uncertainty between the integrity of the skin and the surrounding space that the body occupies. Through a modified application of pigment (where more water is added in brush and wash technique), the contours of the figure appear to dissolve, as in READY (1991), for example, or RE-ENTRY (1993), in which the body's contours also have faint, incipient branches spreading out from the skin's surface which are seen silhouetted against a shaft of light. This anticipates a major shift that occurs in the sculpture in 1997. In the significant breakthrough work, UNDER MY SKIN (1997), Gormley removed 10 mm from the body's surface and replaced this missing layer with short, stubby rods which protrude outwards (as demonstrated graphically in the drawings made the following year, UNDER MY SKIN II and III, both 2000). Thus for the first time in his sculptural practice the body-form acquires a fuzzy edge, mirroring the blurred outlines already found in the BODY AND LIGHT drawings. This reaches a further level with the recent work, APERTURE XI (2010), included in this exhibition. [16]

In fact the changes in the year 1997 are so significant that it is worth pausing to consider what else happens to the sculpture at this time. Apart from a shift to casting a large number of multiple elements, as in ANOTHER PLACE (1997), [17] there are two further important developments. The first of these involves compression: having begun to shave off material from the body's surface in UNDER MY SKIN, Gormley continues with this idea to produce the INSIDER series where the body is now drastically reduced (see INSIDE AUSTRALIA, 2003). Although still sinuous, the resultant new form, cast in iron, is inevitably more graphic in outline. According to the artist, the INSIDER "is a core rather than a skeleton [...]. [Its] bareness is not the nakedness that reveals the flesh, it is the result of having had the flesh taken away..." [18] To begin with, the new shape causes gravitational confusion: the angular body struggles to find its feet and there is a conceptual uncertainty as to which way is up, as in FREE FALL I (1997). The sparseness of the new form is in marked contrast to the massiveness of the hanging iron sculptures previously discussed (or to the concrete forms which Gormley had been pursuing from 1987, which showed the ultimate compression of the body into skin/mass, as in ALLOTMENT II, 1996). Instead of possessing sculptural mass and volume, the INSIDERS are more akin to quick graphic mark-making - they resemble stickmen, the rapid

notational method of drawing the human form which has its roots in prehistoric cultures and relates to Gormley's interest in Australian wall paintings. The form of the INSIDER sculptures is, perhaps predictably, very closely echoed in the drawings that accompany them, for instance INSIDER 60 (2000), where the attenuated body is contained within a shellac aureole which seems to indicate that the missing space of the body now surrounds the figure as a disembodied zone.

The second development which emerges in 1997 is one that links most closely to the process of drawing. In the suspended sculptures SIEVE (1996-97) and the series of three CELL CYCLES (1997), the notion of a completely continuous membrane of skin containing the body is shattered as a widely spaced, curved steel structure now marks out the body as a three-dimensional grille or grating, allowing the form to be totally permeated by light. Rather than using casting or moulding techniques to determine the outer form, thin strips of metal are used to "draw" the constituent elements - a single figure is enclosed separately within another in SIEVE (1996-97), and within an amplified skin in the CELL CYCLE (1997). [19] While the lines replace the seams (solder lines) of the lead sculptures and for Gormley recall the circling lines on the geographical globe, they also call to mind the virtual "wires" or three-dimensional line drawings that were contemporaneously being used as computer-generated models in the fields of architecture, science and engineering. Suspended from the ceiling, these sculptures certainly anticipate the later suspended open-weave works in this exhibition, while contrasting to the mass of the earlier iron suspensions. [20] Both developments mark a radical turn towards linearity. From that time, not only do the drawings themselves become less concerned with massing form, but also a high proportion of the sculptures become "drawings in space."

DRAWING THE BODY IN SPACE

In the BODY AND SOUL suite of 1990, the first etchings he made, Gormley explored the drawn body in a different way: not as a totality but as a series of fragments. In graphic marks etched on to each plate separate impressions from nine of his corporeal extremities (the five main orifices and the hands, knees, forehead and spine) are given. [21] Displayed as an ensemble, the etchings can be construed as both a reformulated life drawing and a self-portrait, albeit one that is difficult to disentangle. For without knowing which parts of the anatomy have been used, the images exert a mysterious hold over the viewer who may well read other forms, such as planets and eclipsed moons, instead of nose, lips, glans and anus. The orifices which are printed against black seem, in particular, to lock the body, metaphorically, into deep space. Presented against a series of alternating positive and negative grounds, the indexical trace of the artist's body is perceived in segments, with the missing parts conceptually filled in by the observer. [22] This approach recalls the way in which Bruce Nauman, an artist admired by Gormley, also used himself to examine the parameters of art and the role of the artist in NEON TEMPLATES OF THE LEFT HALF OF MY BODY, TAKEN AT TEN INCH INTERVALS in 1966, and connects importantly to ideas that would become more prevalent in the 1990s as artists went on to view the body as a contested site of "wholeness" within the social space. [23] Yet in speaking about the suite, Gormley makes clear the link between this work and his sculpture: "I have tried to make a bridge between the inner and outer worlds to bring light to weight and weight to light and these prints are a continuation of that attempt." [24] The ongoing nature of these concerns can be observed by comparing the etchings to the earlier lead body forms, THREE WAYS: MOULD, HOLE AND PASSAGE (1981-82), where three of the body's orifices are exposed, drawing attention to the thresholds through which the inner and outer worlds are linked and to the spine which acts as central pivot for all the body's movements.

Although the BODY AND SOUL etchings focus on close details of the body and its traces, most of Gormley's work has been about the broader issue of the body and its "environment," and part of its great distinction is found in his skill at placing the body in space. Since their inception he has paid meticulous attention to the siting of his body-forms, not only in terms of the architectural space of the gallery or museum setting and the dynamic with and between the works this sets up but also, as an inheritor to the thinking behind much Land Art, in terms of their relation to the external environment of land, sea and water. His ability to select the most appropriate site for his work so that it tunes with the surrounding environment, wherever it might be, such that the introspective and meditative mood of much of the early sculpture (echoed in the BODY AND LIGHT drawings, as we have seen) is prodigiously heightened. In both sculpture and drawings, the play of light is vital to the sense of the body's presence. The strong visual and emotive impact of the sculpture BEFORE THE LIGHT (1986-89), for example, is orchestrated by the placement of the upright, lead body cast so that (at least in one installation) it is seen silhouetted against the light of the threshold; a contrast between the darkness of the figure and the light surrounding it that is echoed in several drawings such as GAP, (1991) and RE-ENTRY (1993).

Increasingly however, rather than connecting the body to the space of nature (as occurs in the BODY AND LIGHT series), the later drawings begin to demonstrate an interconnection with a more urban environment, which in turn affects their form. A couple of tiny works on paper from 1997, DAKOTA I and II, signal this change. Using the familiar materials of carbon and casein, the vestigial washed body silhouette now becomes over-inscribed by a series of brown lines which mark up an interrupted grid. Not only does this grid partially obscure the underlying figure (which now gradually appears to fade away in the watered pigment), it also creates a geometric pattern on the surface of the paper which, in its spatial composition, can be read as an architectural grille or balustrade set in front of a window, or as abstract scaffolding. Either way, it is not surprising to find that these urban works, with their rectilinearity operating at a far remove from the natural, curved forms of the Coniston drawings, were actually made in the Dakota Building on New York's West Side. The particular rhythm of the city's architecture seems to activate the composition of the grid [25] and creates new possibilities for the interpenetration of body and space. Certainly the drawings appear to anticipate both the future concentration on the matrix itself in the GEOMETRY series and Gormley's wider interest in working on increasingly large scale urban architectural projects. [26]

Within the works on paper this interest in a lineal interconnection of the body to its surrounding space is visible in the aquatint UNTITLED (2001), where a series of radial lines extend from different parts of the body, dragged out from the figure in the process of making. Here, urban space is not so ostensibly evident. Instead, the body is penetrated by lines which suggest a number of conflicting associations with, for instance, nature (the cactus plant), religion (the skin as crown of thorns, Saint Sebastian, stigmata, ecstasy), material global culture (fetish objects) and human experience (arrows of desire). This linearity links with some of the sculptures of the period: for example, CAPACITOR (2001), in which the T-shaped arrangement of the stainless steel bars of Gormley's earlier QUANTUM CLOUD series (1999) give way to extremely long, pointed steel rods which project outwards and appear to threaten the observer. With their bristling quills, evoking the armour of an urban sci-fi aggressor, the steel spines seem capable of puncturing the vulnerable membrane of human skin, of self as well as other. In other series of sculptures (such as the DOMAINS and the QUANTUM CLOUDS from 1999 onwards) the body-form is configured differently, through a series of broken lines which cross over each other like the device of cross hatching familiar to drawing, possibly relating to the lattice framework found in the DAKOTA images (1997). This new open-weave carapace provides a complete feeling of weightlessness and lightness in respect of the figure: totally permeated by air, it nevertheless reveals as much veracity to the body's posture and attitude. In certain works, such as QUANTUM CLOUD XII (CROUCHING SUSPENSION) (1999), the long, fine mild-steel bars of the matrix now protrude so far that the crouching body-form hidden within becomes almost lost to view, with the shape instead bristling outwards in an abstracted assemblage of metal lines. The installation of this piece as a relief, hung close to the wall, accentuates the playful two-dimensionality of the work's form and demonstrates how its overall appearance relates closely to drawing as an activity: it is as if, through the use

of small broken lines, a crouching figure has been conflated onto the single plane, with the whiteness of the wall becoming the familiar ground of the "paper" against which the black "lines" stand out to compose the form. Once more the crossed bars themselves resemble the cross-hatched drawn lines found in the DAKOTA drawings and whilst the energy emanating from this field is considerable it is, however, also controlled, with the radiating cross bars, despite their straight lines, creating a disc shape as they hold together from the centre.

Yet against this sense of order there is also an emphatically more random and chaotic relationship to the structure of the body in space in Gormley's work around the turn of the century. The TRAJECTORY FIELD drawings, for example, suggest an increasingly disordered arrangement of parts which follows the randomness of line found in an early experimental UNTITLED drawing of 1988 where a "trajectory" of the artist's blood (issuing from the explosion of a capillary embolism on his finger) tracks a sinuous, abstract circuit across the paper.[27] In the first of these TRAJECTORY FIELD images, the human figure is cleanly blocked-in with black pigment and appears comfortably suspended in a web that effortlessly supports his weight, visually relating to the QUANTUM CLOUD sculptures and generically anticipating the later work FERMENT (2007). But although the figure is clearly recognisable, the web itself is anarchically free-form with no mathematical structure. Progressively in the next two drawings, the body itself becomes increasingly abstracted until in TRAJECTORY FIELD 22 (2003) it disappears as a fully recognisable form and instead assumes a curvilinear shape which is attached to a vertical line or wire, akin to the suspended "abstract" sculpture FEELING MATERIAL XXXVI (2008) with the suspension line that holds it up also visible. The uncertain outline in these drawings is also caused typically by the technique: experimenting at first with a small stone dipped in acrylic and later with a ball bearing, Gormley allowed the "ball" to roll on its own across the paper in such a way that the random lines inevitably curve, drawn by the action of playful happenstance, rather than being controlled by the hand.

This freedom is echoed by a new departure in some of the sculptures from 2003 onwards. The breakthrough occurs with the discovery of continuous steel wire as a way of forming the sculpture as one single long strip of metal unfurling in space. At first the resulting body-form is rooted to the ground on feet to hold its gravitational balance, as in FEELING MATERIAL I (2003). As Gormley describes it: "The FEELING MATERIAL works started with an attempt to describe the space of a body using a matrix formed of rings. I then realised that I could create this like a drawing; an unending spiral line that span a web around the body, orbiting close to the skin and then spiralling out into space..." [28] To begin with, the inner cores were very dense and tightly wound but within eighteen months the fluidity and energy suggested by the circuitous form of this ring matrix not only propelled the body into space but also ended up creating a more abstracted form which eventually became suspended at a diagonal slant from the ceiling in FEELING MATERIAL XXXVI (2008). Like an unfurled spring, the metal strip extends sinuously outwards into its surrounding space. The lack of stability caused by the jauntness of this angle gives the work a particularly dynamic impression, allowing it to sway gently in the air like a mobile, as the earlier interest in weightlessness and lightness is augmented by a fascination with airflow and its possibilities to further animate the work. The tremulous effect caused by the varying directions of the air currents makes the particular conditions of the viewing space become markedly significant; so much so that by 2004 two things happen: firstly, the outer reaches of the spools unleashed from the body begin to occupy the room, as in FEELING MATERIAL XIII (2004); and secondly, the encircling linearity of the steel wire becomes released in its own right until the line snakes out into the space of the room entirely free of any body-form at all, culminating in the first CLEARING I (2004) - a non-referential, three-dimensional drawing.

This shift prompts thoughts on the relative difference between two- and three-dimensional drawing. Three-dimensional drawing had existed in 20th century sculpture with the mobiles, and in the work of abstract constructivist sculptors such as David Smith (1906-65) who used line to circumscribe space in what Clement Greenberg described as drawing "in air." [29] Due to their horizontal format, however, such works were mainly viewed from a fixed viewpoint, front or back, often in relationship to the landscape. Gormley's three-dimensional drawing makes further demands: although both the integral figure and its bounding skin or contour may now have become disrupted, what occurs is that the materiality of the viewer's body now "inhabits" the void which once described the space of the cast body. Rather than looking at it from a frontal or single plane, the (embodied) viewer has to move around this three-dimensional drawing in order to "see" it and thus uses his/her own body in three-dimensional space to engage with its shifting forms and light patterns. Two-dimensional drawing still engages the mind to read the complexities of the space but it does not require the body's physical input.

DRAWING SPACE

With the installation CLEARING I (2004), sculptural attention thus shifts from the body in space to space itself. Liberated from the duty of description, line becomes a thing in itself and is used to activate space for the viewer. Described by Gormley as "a three-dimensional drawing in space/time," CLEARING is made from a continuous length of aluminium tube which links into itself at either end. Extending five kilometres in length, it creates myriad loops that are both formed and supported by the six surfaces of the room: walls, floor and ceiling. To engage fully with the work, the viewer is invited to enter the installation and in order to navigate the loops must stoop, climb, cling, move under, over and in between the forest of tubing. "If you trip you send a signal which is transmitted throughout the room." Yet once one reaches the centre or the furthest perimeter of the space, no single viewing point allows full view of the sculpture: one is in the middle of a whirling vortex: "The entire volume of the space is made into an energy field." [30] Both this work and FEELING MATERIAL XXXVI (2008) seem to imply links to current developments in physics: instead of earlier "theories of everything" which sought to identify elementary particles of matter, new string theories "introduce basic entities that are loops (or lines) of energy which have a tension." [31] The unleashed energy and dynamism of these sculptural forms may suggest a visual equivalent of this.

If the continuous line is a kind of three-dimensional drawing, it is unsurprising that the installation also links to new approaches to drawing space in Gormley's works on paper of this time. The early CLEARING drawings X, XII and XXXVII (2005) are made with black pigment on small pieces of maize paper, acquired by Gormley in China and notable for its warmth of colour and roughness of texture. They demonstrate the way in which Gormley's thinking has moved on from the TRAJECTORY FIELDS where, although the forms in those drawings had become progressively more abstract, there was nevertheless a loose reference to the anthropomorphic by virtue of their verticality. In these CLEARINGS, however, the drawn line unfurls within a whirl of lateral energy. Starting at the extreme edge of the paper, it snakes in a circling arc across the page, crossing over itself in a series of intricate loops, slightly puddling, before exiting on a parallel course to its entry point, a few centimetres apart, creating the dynamic impression of two satellites or comets orbiting at speed through space. In CLEARING XII (2005), in particular, the swirling vortex pulls away from any earthly gravitational ambit and the spool of the curving lines recalls the pathways of the Whirlpool Galaxy captured by the Hubble space telescope in the same year (2005). [32]

Certainly Gormley's interest in the double dynamic of scientific research, the microcosmic and the macrocosmic, is apparent elsewhere at this time, as in the drawing NEUROPOLIS (2005) which reads both as a stellar map and a route of neural pathways. Here a matrix is mapped out through the unusual use of Tippex (correction fluid) against a darkly washed ground. With its accumulation of smudges and sinuous shapes, only just visible, the ground recalls the intricate patterning of the cerebral cortex while the interlinked bright nodes (that form the vertices or meeting points for a series of polygons which weave in and out of the spatial field) infer the mapping of stars and planets. The neurological thus links to the astronomical: the

infinite of cells involved in synaptic neurone activity paralleling the billions of stars in the cosmos. [33] Gormley's discussion with Hans Ulrich Obrist in 2008 is instructive here: "We're having two parallel shifts: the transition in science between the study of discrete things, smaller and smaller, to field activities, to an engagement with emergence, the relationship between, for example, chaos theory and flow structures." [34]

While relating visually to these concerns, the subsequent large CLEARING drawings from 2006-2009 link back especially to the indexical trace that brings them into being. Each drawing (and there are over one hundred to date) inscribes the reality of a lived moment as the gesture of the artist's body takes over from the mere hand's touch.³⁵ In fact, Gormley has referred to these drawings as being "a kind of choreography for the hand-arm-brain" or "just traces of activity where I'm using my mind-body as a sensor. They're almost like cardiograms of different vectors." [36] For him, they are also mental diagrams furnished by the body in a fluid state. CLEARING L, LI AND XLVIII (2006), for example, indicate the release of energy implied. [37] Following the physical rotation of the arm, they trace a spreading arc which loops in a wide circuit across the paper. Now, however, rather than being drawn, the fine lines are "carved" by the use of a sharp metal burin, normally used for etching. This activity exposes the weave of the paper from its pre-washed ground, and the technique is reminiscent of the carved line made in his early stone sculptures such as SKIN IV (1978) discussed above. The link between etching and drawing, always malleable, becomes manifest, but here the results are unique and not reproducible. Significantly, in CLEARING 100, 101 and 104 (2009), line is liberated from inscription and the drawing becomes a registering of time as well as constituting a mark. For the viewer, slowing down time to look allows room for thought concerning the wider implications of space.

Both the HATCH VI drawing (2006) and RAIN VI (2009) are also both executed with the burin scratching into the paper, but the rapidly scored marks are now rectilinear. With RAIN VI the use of line is obviously freed from any representational link to the human body, as in the CLEARINGS, but by virtue of its title it still has a relationship to nature. HATCH VI, on the other hand, connects nominally to the idea of a drawn mark - "hatching" being a shading technique. It was also the title of a room sculpture at Gormley's exhibition at the Hayward Gallery, London, 2007 (HATCH). Together, the HATCH drawings are imaginative exercises in spatial alignment which relate to architecture: the room is sketched out, recalling the architectural frame that encloses the figure in MANSION (1982) but now, notably, the figure is excluded and the spaces themselves are opened up as if to challenge the notion of architectural containment. Although there is a relationship to CLEARING as a total occupier of the space of the room, in terms of their rectilinearity the HATCH drawings connect more closely to BREATHING ROOM I (2006), the drawing for which, BREATHING ROOM I (2005), unusually predates the sculpture and can be seen as a sketch for it. Here the linear articulation of the HATCH drawings is carried into a more complex interweaving of various rectangular structures that occupy and echo the containing room; it is as if the white points in the drawing NEUROPOLIS (2005) have now been aligned along the axis of the grid and the previous mapping of the universe is brought back into the human domain of architectural space. However, the internal space of the room is described purely by linear matrices as the outer skin or membrane of the room is stripped away to leave a series of nestling Chinese boxes which sit inside each other, devoid of their defining planes.

In the installation BREATHING ROOM III (2010), recently exhibited in London, 15 interconnecting photoluminescent "space frames" mark out the space like a mathematical diagram, while the emphatic grid of crossing lines makes the floor into a geometric drawing in itself. The viewer is encouraged to enter into and interact with the defined sculptural space in which intense bursts of light, activated on an electronically timed cycle, interrupt the glowing darkness and unexpectedly jolt the experience from one of quiet meditation to one of sudden interrogation. The emphasis, as in CLEARING I (2004) and the room installation BLIND LIGHT (2007), is on experience, [38] which here is given greater spectacular effect through the use of light as well as time. While the provision of light comes from the use of phosphorescence and electricity - an aspect that the earlier drawing from 2005 does not show - the 2010 drawing of BREATHING ROOM XXIV (2010) vividly captures something of the effect of the glowing light as it appears in the gallery against the suddenly plunged darkness of the space. The room construction is created through the use of lines made with a fine brush dipped in household bleach which removes the ink from its paper support and makes the negative outlines glow. This device reflects the uncertain terrain of what constitutes the installation: "The object hovers between being architecture and being an image of architecture." [39] The result for the viewer, in both drawings and installations, is to be caught up in an indeterminacy of perspectival viewpoint.

What is significant about all these works which use the frame of architecture, either in sculpture or in drawing on paper, is the way in which they link back to longstanding interests of the artist. As Gormley himself said with reference to his 2007 Hayward Gallery exhibition: "I am trying to fold architectural space into the body or the body into architecture, and this dialectic between space that is articulated by architecture and space as experienced by the body has always been part of my work." [40] But Gormley was constructing discrete architectural spaces to allow for an encounter of this sort as early as 1980. In ROOM (1980), he mapped out a "landscape drawing" through a sequence of lines not drawn on paper but made from stretched material. Carefully cutting his own clothing into continuous spirals, "unpeeling the covering of a body like unpeeling the skin of an orange," [41] and tying them together at the ends, he created horizontal lines to demarcate a room-sized enclosure; an activity that acts as a subtle harbinger of the charting out of the lines in a room, twenty six years later, in BREATHING ROOM I (2006). Yet while the earlier work links indexically to the artist, the later work, as mentioned, deflects concerns on to the perceptual and experiential physical participation of the viewer. The body is still present but now in the form of the spectator, representing a shift from a loosely Post-Minimal mode of thinking to that of the Relational Aesthetics proposed by Nicolas Bourriaud and current in the cultural milieu since the end of the 1990s. [42]

In the most recent sculpture in this show however, Gormley comes back to the figure. PROJECT II (2010) stands like a sentinel, the mass of its body composed of an amalgam of empty frames that draw out in space the total volume of the body, just as the skeletal frames in BREATHING ROOM "draw" the total volume of the room. Applying the abstract language of architectural description to the body itself, the space of the body is thus described as a kind of architecture. Certainly the sculptures included in this exhibition demonstrate the huge change that has occurred in Gormley's thinking about his work. He recently claimed that for the first twenty years of his career he made "hermetic lead boxes in human form that were about the condition of being [...]. I was trying to find a relationship between imaginative and actual space and it didn't work. But nevertheless they were all architecture; they were all containers of space, in space at large. Now that I've moved from this indexical register of a body in space to working more with fields and frames, rooms and architecture, perhaps that attempt to make a bridge between mind and space and extended space will become more graspable." [43]

FERMENT (2007) is an example of this new type of frame. Like the earlier suspended sculptures discussed above, it hangs in space. But this version of the figure is even more gossamer-like and weightless and the structure of the form is patently different. Gormley discusses the work as follows: "These bundles of nothing are the most dematerialised works I have ever made. The bodies are free, lost in space, weightless and with no internal determination - they are not 'acting.' They appear as emergent zones: you cannot be sure whether the bubble matrix is produced by the body zone or the zone by the matrix. The bubble matrix series is the closest I get to Brancusi's notion that you can turn an object into light. He did it by polishing sculptures, whereas I have tried to do it by abandoning weight and mass and dissolving surface." [44]

What Gormley calls the "bubble matrix" is a type of tetrahedral structure that is both a formal mathematical construct and something that occurs naturally in the carbon atom, and in the cell structure of foam and bubbles. [45] In FERMENT he takes the honeycomb formation of the Weire-Phelan

structure as his starting point, but extends into the surrounding space to create more complex geometrical surfaces and volumes in a modular and flexible tetrahedral construct. [46] With the bubble matrices, Gormley feels that the preconceptions about the nature of mass and void are challenged: "The classical position of sculpture as an absolute object placed in space has been replaced by constructing a provisional energy field in space" [47]; an activated energy field that is conveyed dynamically in FERMENT.

The concerns of the sculpture are echoed in the WEB and GEOMETRY drawings where the same interest in three-dimensional polyhedral mapping is found. While the first WEB (WEB I, 2006) shows vestigial reference to the architecture of a room, WEB II (2006) shows a further development as the ruled lines of the first drawing in the series are now joined up to create multiple polyhedrons that overlap in a space that is no longer bounded by the schematic architecture of a room. The surface pattern of WEB II connects closely to the GEOMETRY I drawing of 2008: the interconnecting polyhedrons are contained within a bubble matrix that conveys the same weightlessness and air as FERMENT itself. Together these drawings suggest a more rational application of the imaginary with their use of straight lines. Though having less immediate ebullience than the CLEARING drawings, they also prompt thought about our own relationship to the world and the implications of new scientific discoveries about matter, energy and human biology. Significantly by this point, Gormley could not have got to the drawings without the sculptures which investigate space and time and in this sense the relationship between drawing and sculpture has now changed. The drawings on paper have become a meditation on the sculpture, whereas previously they were parallel activities. [48]

While the bubble matrix sculptures and drawings connect remarkably closely to recent ideas within physics, [49] they also link imaginatively to the cultural sphere, prompting thought about new computer-generated architectural visualisations and the digital matrices of cyber-space and tele-mediated technologies, for instance. The visual and physical vulnerability of the hanging sculptures themselves could be read as poignant commentaries on this brave new world: as the bodies meld into metal mesh, they might also seem to address a different metaphorical meaning - the fragility of what it is to be human. The figures defy gravity - floating in bubbles, they lack mooring and are singularly without company. In this way, they might be seen to connote a metaphysical perspective, albeit one that is highly informed by current ideas. The earth-bound references and the responsive sensations to the elements found in the Coniston Water drawings seem to belong to a different epoch from these complex geometries. Yet Gormley's nature is to be positive. He constantly talks about the power of art to assist man's existential condition; of its ability to connect with others and to inspire.

This exhibition demonstrates the extraordinary, continuing inventiveness of Antony Gormley's work. It shows how drawing, always a central activity for the artist, seems to have informed the changes of thinking behind much of his recent sculpture and in turn, been influenced by that. Whereas his earlier three-dimensional work was defined primarily by concern with a continuous surface membrane, his recent approach has exploded the skin through a new conception of line and space, more akin to drawing itself, helping relate the body more to its surrounding space and creating a more dynamic experience for the spectator. This change has grown integrally from longstanding concerns in his work, but has been augmented by his sensitivity to changes in scientific thinking and to architecture. [50] Inspired by such developments as the propositions of string theory in the understanding of space-time, Gormley perceives that linearity is changing and, rather than carrying descriptive duties, has developed greater metaphoric potential. This is reflected in his work. A complex and varied linearity has become a central preoccupation of his most recent sculpture, [51] which has been visually fertilised by the immediate and indexical body-linked activity of drawing. It is this interplay between drawing and sculpture that creates an art of lasting importance and profound emotional resonance.

1 Hans Ulrich Obrist, "Antony Interviewed" in Antony Gormley, exh. cat. (Monterrey: Museo de Arte Contemporáneo, 2008), p. 83.

2 The works exhibited here are considered "finished" drawings and should be differentiated from the drawings made in Gormley's "workbooks" which are more provisional, sketchier, mostly done in pencil, and often made on the move as diaristic jottings. See Antony Gormley: Workbooks I, 1977-1992 (Galicia: Centro Galego de Arte Contemporánea, 2002). However, strong connections exist between them as Gormley returns to rework ideas. The outstretched figure in SPACE (2007) for example, occurs first in a Workbook sketch in 1978 before becoming more attenuated and abstracted in a San Antonio drawing (number 7) of 1995. This in turn forms the basis of the current lithograph from 2008. To Gormley, this figure may be read as a body, an horizon, a road and a tree - but the title is obviously also significant.

3 In "Art is useless unless it helps us deal with survival," interview with Pierre Tillet in Antony Gormley: Between You and Me, exh. cat. (Rotterdam: Kunsthall Rotterdam, 2008), p. 49.

4 Antony Gormley: Workbooks I, 1977-1992, op.cit., u.p. [1978].

5 Gormley is working at a time when this question has been much debated and his work reflects the contemporary fluidity of thinking on the subject. According to one recent study, "the debate concerning 'what drawing is' and the particular properties that define it [...] has proved impossible." See Simon Downs et al in Tracey, Drawing Now: Between the Lines of Contemporary Art (London: IB Tauris & Co, 2007), p. xi. For further recent perspectives on drawing, see also Laura Somer & Mariah Carlson, Drawing Now: 8 Propositions, exh. cat. (New York: Museum of Modern Art, 2003); The Stage of Drawing: Gesture and Act: Selections from the Tate Collection (London & New York: Tate Publishing & Drawing Center, 2003); Emma Dexter, Vitamin D (London: Phaidon, 2005); Tania Kovats (ed.), A Survey of Drawing (London: Black Dog, 2007); and Deanna Petherbridge, The Primacy of Drawing: Histories and Theories of Practice (New Haven, CT: Yale University Press, 2010).

6 Ibid.

7 See Antony Gormley: Workbooks I, 1977-1992, op. cit., u.p. [1978]. In projects such as those described above, Gormley reveals his early interest in the methodology embodied in Paul Klee's Pedagogical Sketchbook, notably Klee's suggestion of "taking a line for a walk"; an approach to thinking about art which helped set up his own future parameters. See Paul Klee, Pedagogical Notebook, 1925, Sibyl Moholy-Nagy (ed.) (London: Faber and Faber, 1968), Section I. Other major inspirations for Gormley's thinking at this time were John Cage's chance operations and, slightly later, Joseph Beuys' attitude to work and materials.

8 This was explored sculpturally in FULL BOWL (1977-78) and FRUITS OF THE EARTH (1978-79).

9 See, for instance, Hugo Chapman & Marzia Faietti, Fra Angelico to Leonardo: Italian Renaissance Drawings, exh. cat. (London: British Museum Press, 2010).

10 The early drawings included in this exhibition cover two periods of production: 1981-3 and 1990-6. For further discussion of these and a further fourteen different groups of drawings which span the first thirty years of the artist's career, see Anna Moszynska, Antony Gormley Drawing, exh. cat. (London: British Museum Press, 2002).

11 Antony Gormley: Workbooks I, 1977-1992, op. cit., u.p. [1979].

12 As Gormley has tellingly remarked: "I am not interested so much in likeness, but in the space that exists inside us all. The infinity that we all are part of and inhabit must inhabit us." Antony Gormley: Workbooks I, 1977-1992, op. cit., u.p.

13 A similar parallel is found in the work of Joseph Beuys. Both artists share a highly experimental approach as well as a huge respect for the nature of the materials in their work. Gormley's preference for using his mediums as substances with independent values rather than as mere colouring agents in his drawings, and the close affinity that the black pigment bears to the use of lead in his sculptures, echoes the close relationship between Beuys' employment of Braunkreutz (lit. "brown cross") in his drawings and the use of felt in his sculptures. Both also use unorthodox materials. For a

discussion of Beuys' attitude to materials, see Bernice Rose, "Joseph Beuys and the Language of Drawing" in Ann Temkin & Bernice Rose, *Thinking is Form: The Drawings of Joseph Beuys* (Philadelphia/ New York: Museum of Art & The Museum of Modern Art, 1993), pp. 87-9.

14 The finished drawings are also "mostly made at night, when it is easier to withdraw into the inner realm." See Antony Gormley, "What is Drawing?" in Anna Moszynska, *Antony Gormley Drawing*, op. cit., frontispiece.

15 Dante was a noted point of reference for Gormley. In the 1970s, he records Dante's comment "He who paints a figure, if he cannot be it, cannot draw it." *Antony Gormley: Workbooks I, 1977-1992*, u.p. [1979]. For further works in the series see *Antony Gormley: Body and Light and Other Drawings 1990-1996* (London: Jay Jopling/ White Cube, 1996).

16 The complex geometrical mathematics underlying the appearance of this later work and their relationship to the spatial topology of the universe have been brilliantly identified and discussed by the mathematical physicist, Roger Penrose in "The Beauty of Geometry" in *Antony Gormley: Aperture*, exh. cat. (Brussels: Xavier Hufkens Gallery, 2009), pp. 5-17.

17 In *ANOTHER PLACE*, 1997, 100 iron figures from 17 body-casts occupy a wide spatial field along the shoreline first at Cuxhaven, Germany in 1997, then at Stavanger, Norway in 1998, and later as a permanent installation at Crosby Beach near Liverpool, England. This venture had a significant impact on other aspects of Gormley's future sculptural practice.

18 *Antony Gormley, "Insiders"* in *Trialgo: Giuseppe Gallo, Antony Gormley, David Hammons*, curated by Martha Boyden, exh. cat. (Rome: Palazzo delle Esposizioni/ Gangemi Editore, 2000), u.p.

19 These forms, while losing their containing skins, nevertheless "map" them. In both *SIEVE* and *CELL CYCLE* the original body shapes were repeatedly covered in multiple layers of plaster to produce the outer shape.

20 The transparency of form might visually recollect the first hanging mobiles of the Russian Constructivist Aleksandr Rodchenko (1891-1956), such as his *OVAL HANGING CONSTRUCTION NO. 12* (c. 1920; Moscow, Tret'yakov Gallery), one of the first suspended structures in 20th century sculpture. Made of a single sheet of plywood that was cut into concentric rings, the two-dimensional surface appeared as a three-dimensional structure by rotation. In Gormley's case the concerns of his suspensions are still unmistakably figurative at this stage and he did not become aware of Rodchenko's until visiting the Tret'yakov Gallery in 2009.

21 It is significant that prints, as much as drawings, are seen by Gormley as a medium which examines the graphic process and thus can be counted loosely as a form of drawing, as suggested in his lecture title "Drawing From and Drawing Out: An Enquiry into Inscription, Stain and Ground" for the *Space to Draw* exhibition, Jerwood Foundation, London, 2008. For further details on the prints, see *Antony Gormley: Acts, States, Times, Perspectives*, exh. cat. (Copenhagen: Edition Copenhagen/World House Editions, 2008), p. 8.

22 In two later body-based lithographs in this exhibition, *BODIES IN SPACE (BLACK)* and *BODIES IN SPACE (WHITE)* (2008), the full length of the artist's body is also depicted in graphic form but here the contours are dissolved and merge into the surrounding space through stippled marking, so that it too is scarcely "entire."

23 Major exhibitions which examined the issue of the body in this decade include Jeffrey Deitch, *Post Human*, exh. cat. (Pully/Lausanne: Musée d'art contemporain, 1992); *L'Ame au corps: arts et sciences 1793-1993*, exh. cat. (Paris: Galeries Nationales du Grand Palais, 1993); *Féminin/Masculin: le sexe de l'art*, exh. cat. (Paris: Centres national d'art et de culture, Georges Pompidou, 1996); and *Identity and Alterity: Figures of the Body 1895-1995*, exh. cat. (Venice: La Biennale di Venezia, 1996).

24 *Antony Gormley, "Body and Soul"* in *Contemporary British Art in Print: The Publications of Charles Booth-Clibborn and his imprint The Paragon Press 1986-95*, exh. cat. (London: The National Galleries of Scotland in association with The Paragon Press, 1995), p. 105.

25 This tendency is also found in the late work of Piet Mondrian (1872-1944) whose *BOOGIE WOOGIE* paintings were made after his arrival in New York in 1940 and his discovery of the grid system of central Manhattan. It was there that he found the syncopated beat, irreverent approach to melody, and improvisational aesthetic of boogie-woogie as similar to his own "destruction of natural appearance, and construction through the continuous opposition of pure means - dynamic rhythm." From a letter (May, 1943), reproduced in "An Interview with Mondrian" (1943) in *The New Art - The New Life: The Collected Writings of Piet Mondrian*, Harry Holzman & Martin S. James (eds. & trans.) (London: Thames and Hudson, 1986), p. 357.

26 The relationship between the large-scale work and the landscape continues, markedly in works such as *TIME HORIZON* (2006), where one hundred cast iron elements were installed in the Parco Archeologico di Scolacium, Roccella di Borgia, Catanzaro, Italy. Increasingly architectural references are found in two forms: the placement of life-size sculptures in the street (such as *EVENT HORIZON* in London, 2007 and New York, 2010), and in the physical growth in scale of individual architectural projects (including his design with David Chipperfield of the Kivik Art Centre, Kivik, Sweden in 2008 and Gormley's house-sized, crouching block-work form, *HABITAT*, on the streets of Anchorage, Alaska, USA in 2010).

27 Another early use of the trajectory as technique is found in the San Antonio drawings series of 1995 where Gormley used a bottle of pimento sauce as "an ejaculatory instrument": "you could shake it and it would spurt and make a trajectory through the air before it became paint." *Antony Gormley* in Anna Moszynska, *Antony Gormley Drawing*, op. cit., u.p.

28 *Antony Gormley: Another Singularity*, exh. cat. (Beijing: Galleria Continua, 2009), p. 14.

29 For reference to the mobile, see note 20 above on Rodchenko. Greenberg's quote refers to the generic emergence of what he described, mid-century, as a "novel kind of art with practically no precedents." As he continues: "It was called Constructivism at first, and drew in air with line, plane and color to create cage- or machine-like structures not solid bodies. It did not shape or form solid matter so much as manipulate space - organize and render significant its emptiness." Clement Greenberg, "Cross-Breeding of Modern Sculpture" (1952) in *The Collected Essays and Criticism*, Volume 3: *Affirmations and Refusals, 1950-1956* (Chicago: University of Chicago Press, 1993), pp. 107-113. Obviously subsequent sculpture, post-Minimalism, has also engaged with similar ideas.

30 *Antony Gormley, "Clearing"* in *Antony Gormley* (London & Göttingen: Steidl/MACK, 2007), p. 435.

31 Only one of these entities has so far been determined. The "graviton" corresponds to a particle with zero mass and two units of a QUANTUM attribute called "spin." This spin value ensures that it mediates attractions between all masses. The graviton is responsible for mediating the force of gravity and "its appearance shows that string theory necessarily included gravity." See John D. Barrow, "Simple Really: From Simplicity to Complexity - and Back Again" in Bill Bryson (ed.), *Seeing Further, The Story of Science and the Royal Society* (London: Harper Press, 2010), p. 369.

32 There is also a certain visual similarity between some of the *CLEARING* drawings (in particular, those which were formed using thicker strokes of pigment rolled from an emptied out deodorant stick, such as *CLEARING VII*, 2004) and a drawn impression of Calabi-Yau space which seeks to visualise the curled up nature of the extra dimensions claimed by string theory by representing a six-dimensional shape on a two-dimensional piece of paper. For an illustration, see Brian Greene, *The Elegant Universe: Superstrings, Hidden Dimensions and the Quest for the Ultimate Theory* (London: Vintage, 2000), p. 207.

33 Gormley suggested that the infinitude of cells and neurones involved in the synaptic neurone activity parallels the billions of stars in the cosmos. Author's studio notes, 14 April 2010.

34 Hans Ulrich Obrist, "Antony Interviewed," op. cit., p. 67.

35 In this respect the drawings echo the practice of Jackson Pollock, whose arcing arm gestures (as much as the movement of his entire body) were used to create the circuitry of lines in his "drip" paintings of 1947-50, as recorded in Hans Namuth's influential photographs and film. See Pepe Karmel, "Pollock at Work: The Films and Photographs of Hans Namuth" in Kirk Varnedoe & Pepe Karmel, *Jackson Pollock*, exh. cat. (New York: MOMA, 1998).

36 Hans Ulrich Obrist, "Antony Interviewed," op. cit., p. 71.

37 This is also true of CLEARING 100, 101 and 104 of 2009, as well as CLEARING IV and VII of 2004.

38 This on-the-spot, experiential element in each of these three works links to the tradition of ideas behind installation art seen in the work of artists such as Walter de Maria and Dan Graham, as well as connecting to current trends in interactive or participatory art. Gormley specifically discusses his reaction to seeing De Maria's key 1977 works LIGHTNING FIELD, EARTH ROOM and EARTH KILOMETER in 1979 in Antony Gormley: Blind Light, exh. cat. (London: South Bank Centre, 2007), p. 48, and mentions LIGHTNING FIELD in relation to "participation" in Hans Ulrich Obrist, "Antony Interviewed," op. cit., p. 69. For further reference on the participatory, see Claire Bishop (ed.), Participation (London: Whitechapel, 2009).

39 "Breathing Room" in Antony Gormley (SteidlMACK, 2008), op. cit., p. 471.

40 "Field Activities: A Conversation between Antony Gormley, Ralph Rugoff and Jacky Klein" in Antony Gormley: Blind Light, op. cit., p. 47.

41 "Room" in Antony Gormley (SteidlMACK, 2008), op. cit., p. 61.

42 See Nicolas Bourriaud, Relational Aesthetics, trans. by Simon Pleasance & Fronza Woods, with Mathieu Copeland (Dijon: Les presses du réel, 2002 [1998]) and Claire Bishop, "Antagonism and Relational Aesthetics," October 110 (Fall 2004), pp. 51-79.

43 Hans Ulrich Obrist, "Antony Interviewed," op. cit., p. 86.

44 "Ferment" in Antony Gormley, ex. cat. (Monterrey, 2008), op. cit., p. 240.

45 For the innovative way in which Gormley has used this and for a full explanation of the mathematics underlying the "bubble," see the essays by Roger Penrose and Frank Maes in Antony Gormley: Aperture, op. cit. Gormley has also talked about his interest in the thinking of quantum physicists such as David Bohm, Niels Bohr and Werner Heisenberg, seeing the search for the Quantum Theory of Gravity as "a fascinating parallel field of research which has refused the dialectics of mass and space and applies the functions of a changing energy field to the mutability and interdependence of mind and matter." "Art is useless unless it helps us deal with survival," interview with Pierre Tillet in Antony Gormley: Between You and Me, op. cit., p. 59.

46 This brings to mind Leonardo da Vinci's drawing of VITRUVIAN MAN (c.1487). Whereas Leonardo explored a Renaissance view of man encompassed within the circle and square of Euclidean space, Gormley presents the negative cast of a man, also upright, but penetrated and contained within the spatial matrix of a surrounding physical world which is now construed to be ruled by differing mathematics and the complex forms of non-Euclidean geometry.

47 Anton
