Bodies of Knowledge – Anatomy and Transparency in Contemporary Art

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ABSTRACT

Since the 1990s, the growing expansion of a vast array of medical technologies for the visualization of the inner body seems to have revamped, in an improved version, the tradition of the anatomical theatre, fuelling not only the question of the relation between inner and outer body, public and private space, visible and invisible objects, but also the problem of the relation between art, science and knowledge. The objective of this article is to shed some light on how contemporary artists engage with the very notion of "knowledge of the inner body" proper of the anatomical tradition. To this aim I briefly summarize some fundamental aspects of such tradition and subsequently examine the work of two artists, Laura Ferguson and Annie Cattrell, as examples of very different approaches to the meaning of the visualization and representation of the inner body in contemporary art.

KEYWORDS

Anatomy; Dissection; Human body; Inner body; Contemporary art; Transparency; Vision.

1 | INTRODUCTION

In the book Pictures of the Body: Pain and Metamorphosis James Elkins introduces the theme of the inner body with a description of the Babylonian demon Humbaba, whose face was made out of his own intestines. In the epic tale Humbaba dared to challenge Gilgamesh and his companion Endiku, but he was defeated and killed by Gilgamesh who cut off his horrendous, visceral head. According to Elkins, the story of the demon provides a mythical origin for the longstanding question concerning the relation between inner and outer body, pure and impure, human and monstrous, normal and pathological: "Before Humbaba [...] it was still possible to wear intestines on the outside. [...] After Humbaba a normal person will die if his intestines are exposed and a monstrous person will die if his intestines are hidden" (Elkins, 1999, p. 110-111). For Elkins, with this myth a taboo was set: if we want our body to be recognizable as human we must keep the inside protected and hidden; to stave off death, viscera and bones must be kept where they belong, unexposed. Medicine, however, has always been (partly) immune from this

taboo, as the history of anatomy across different cultures testifies.

2 | THE ANATOMICAL THEATRE THEN AND NOW

Attestations of human dissections have been found in an Egyptian papyrus dating back to 3000 BC and in a Chinese *Canon of Medicine* from around 2600 BC. In a compendium to the Vedas (books of knowledge) from the sixth century BC, the surgeon Susruta gave directions on how to purify and prepare a cadaver for dissection (Cazort et al., 1996), and in Ancient Greece Aristotle and Galen dissected human bodies in search of the secret of life (Rifkin, 2006). The study of Western anatomy as we know it was institutionalized in Europe in 1543, with the publication of Vesalius' *De humani corporis fabrica*, but in Italy human dissection appeared in the medical curriculum as early as of 1286, and by the fourteenth century it had become a staple of medical education (Park, 1994).

Notably, the taboo that prescribes that the inner body must be kept hidden was radically disobeyed at the end of the fifteenth century, when in Italy, France and Holland dissections became public events that gathered together scientists, artists and the populace in anatomical theatres. In cities such as Bologna, Padua or Leiden, public dissections became a social ritual with a double function. On the one hand, it celebrated the prestige of the anatomist who exposed the inner body, and the talent of the artists who drew the anatomical plates (Carlino, 2003; Ortega, 2008); on the other hand, it taught a moral lesson [1] (Foucault, 1997; Sawday, 1995; Tierney, 1998). In the eighteenth century, however, the scientific soundness of public dissections came under scrutiny, and lay people were progressively barred from the anatomical theatre. By the early nineteenth century both the law and a new social sensibility put an end to the public show of human dissection. The taboo was reinstated in its full strength: the inner body had to be kept protected, and its exposure was a preserve of medicine. Artists could still inspect cadavers under the supervision and at the service of the anatomist, but in the public eye the vision of the inner body became shameful and disturbing (Ferrari, 1987).

This state of things has changed, with a twist, over the last decades. Since the 1990s the growing expansion of a vast array of medical imaging technologies - such as computed tomography (CT), magnetic resonance imaging (MRI), positron emission tomography (PET), ultrasound imaging, and various kinds of video endoscopies - has brought the inner body back on the public stage. Not only it has become a relatively common experience to look at images of one's inner body (prospective mothers are probably the best example of this), but technologymediated pictures of fetuses, brains, bones and human viscera have virtually colonized the public space through cinema, television and computers' screens (Cartwright, 1995; van Dijck 2004, 2005), as well as through the exhibitions in art museums and galleries, where artists seem more and more engaged in showing, revealing, exposing and interrogating the living inner body (Kemp and Wallace, 2000; van de Vall, 2008; Slatman, 2004; Monteiro, 2007; Olsén, 2011; Casini, 2011). Thus revived, the public anatomical theatre refuels the urgency of the question of the relation between inner and outer body, public and private space, licit and illicit vision (Foucault, 1963). It also raises the question of the relationship between art and science and their alternative ways of exploring, representing and understanding the (inner) body (Tartarini, 2012).

The Renaissance and Baroque alliance between anatomy and art is well known (Kemp, 1993; 2010; Sawday, 1995), and although the relationship between the anatomist and the artist might be one of exchange and inter-dependence (Daston and Galison 1992; 2007), the artist's access to the inner body occurred under the aegis and the supervision of the anatomist and was intended to produce a scientific representation that would circulate via anatomical atlases [2]. As Rembrandt's paintings The Anatomy Lesson of Dr Nicolaes Tulp (1632) and The Anatomy Lesson of Dr Deijman (1656) show well, when the dissected body appeared in an artwork, it was to celebrate the anatomist as a hero (Kemp, 1993). On the contrary, in contemporary art, artists explore the interior of the human body independently from the supervision of the medical expert, and in doing so they continuously reframe the tradition of the anatomo-clinical theatre 2010), (Ingham, and experiment multiple possibilities of representation and knowledge of the inner body. The aim of this article is to shed some light on how contemporary art engages with the very notion of "knowledge of the inner body,"

by examining the work of two artists, Laura Ferguson and Annie Cattrell, as examples of very different approaches to this conundrum. In so doing I do not aim at exhausting the analysis of the topic, but I hope to provide some insights for further reflection.

3 | LAURA FERGUSON – GETTING TO KNOW MY OWN BONES

Based in New York City, Ferguson has been working on the representation of the inner body using images of her own skeleton since 1993, when she began the Visible Skeleton Series, a collection of mixed media drawings on hand-made paper (Figure 1). Ferguson defines this work a visual autobiography that talks about a real body in pain, a body deformed by scoliosis, which nevertheless preserves its beauty and sensuality. The Visible Skeleton Series deploys a double dimension that stages and interrogates simultaneously the intimate and the political sphere (Di Marco, 2012b). On the one hand, the artist questions the way doctors use medical images to decide how to act upon her body; on the other hand, she takes possession of those same images to explore how a body disrupted by scoliosis can find its own beauty and equilibrium. Over the years Ferguson has worked with anatomical models, actual dissected bodies, Xray images and CT scans to construct an artistic knowledge of her different skeleton. A knowledge that can be used to defy the normalizing gaze, being it medical or social, and that can help to create a ground for public discussion about normality. As she explained in an interview: "Art is one of the few arenas in which the less-than-perfect body can be portrayed with its own kind of beauty, grace, sensuality and originality" (Ferguson, in Neely, 2006). This public side of her work goes hand in hand with the need to develop a form of personal knowledge: "Because I am an artist and tend to think in visual terms, I needed to be able to picture what my scoliotic spine looked like. [...]. Scoliosis is a flawed model of the beautifully designed human musculoskeletal system, but I wanted to portray it as having its own more complex beauty, one that viewed deformity as differentness, and differentness as individuality" (www.lauraferguson.net).

Ferguson finds inspiration in the anatomical tradition (she mentions among her sources of study, Leonardo and the eighteenth-century anatomical waxes of the Museum La Specola, in Florence), but subverts the

use of medical representations that are meant to be objectifying, distancing and controlling (Williams, 1989; Duden, 1993; Cartwright, 1995; Duncan 2000). She explicitly engages in a "learning through drawing" [3] process that allows her to regain a sense of ownership of the body that is usually lost when one's experience of disease or disability is taken in charge by doctors. Since the early 1990s, when medical images did not circulate as widely as they nowadays do, Ferguson has been claiming the right to work with X-ray and CT scans - which are usually intended to belong materially and epistemologically to medical professionals - in order to learn about the unusual structure of her own skeleton. Her aim is to create images that are anatomically accurate and yet personal and inscribed in an artistic tradition. In her own words: "My body was available to me, to use as the subject of art - a body that was voluptuous in the artistic tradition of classical nude by Titian or Degas or Renoir, yet deformed by scoliosis: a flawed but perhaps more interesting kind of beauty, an image that in itself embodied duality" (Ferguson in Neely, 2006).

Genuine follower of the anatomical tradition, Ferguson studied anatomy for many years, and in the preparatory studies that lead to the final drawings of the Visible Skeleton Series she combines observation in the mirror, photographs, radiographs and threedimensional reconstructions of CT scans. Over the years the work with images was complemented with the study of plastic models in order to visualize the dynamics of scoliosis, and eventually Ferguson engaged in direct observation of human cadavers as a resident artist at the New York University Anatomy Lab, where she became familiar with the smallest details of the skeleton and the texture of the bone. Commenting on her attempts to represent her inner body, Ferguson remarks: "It's an unusual kind of work - not guite like drawing a real thing that you can see, yet not quite like drawing from imagination either: it's drawing a real thing, but one that you can't see." We find here a formulation of the problem of visualizing the invisible that haunts artists and scientists alike.



Figure 1 | Laura Ferguson, Lumbar vertebrae-sacrum posterior view, 2000. Courtesy of the artist.

3.1 KNOW THYSELF: IN THE STEPS OF FRIDA KAHLO

The ancient maxim "know thyself" that guided the work of Renaissance anatomists, for whom understanding the human body was part of the larger endeavour of understanding the cosmic order designed by God (Kemp, 1996), resonates with a new meaning in Ferguson's drawings. Although she is not looking for a divine order, she is nevertheless in search of a deeper understanding of what she calls the "interior space" of the body, which is at the same time physical and spiritual. She does so by painstakingly drawing the minute details of bones, tissues and joints, capturing their imperceptible texture, with the goal of creating harmony out of asymmetry, beauty out of what is normally considered ugly, softness out of pain. What we see in Ferguson's art is anatomy at the service of self-perception and self-knowledge. As she explains: "Getting all the details right is still just the beginning: then I have to endow [the bones] with feeling, meaning, individuality - with the same sense of sensuality and softness that I feel in the rest of my body. And just as the character of the face is formed by life experiences, so the bones have been shaped by the forces working over them over the years, [by] the body's attempts to compensate for its asymmetries." While traditional anatomical drawing and contemporary medical imaging represent the body as an object of knowledge, Ferguson's artworks expose the inner body as a way to portray the subjective experience embedded into bones and flesh.

Surprisingly, Ferguson doesn't mention Frida Kahlo among her sources of inspiration, although watching her works one is easily led to sort out analogies and differences between Ferguson and Kahlo's selfportraits. The use of medical imagery was a particularly novel and outrageous facet of Kahlo's work. In a time and in a culture in which the female body was still an illicit province for vision, and the suffering body was not constantly reproduced in popular media as it is today. Kahlo used medical iconography to put on display aspects of her private experience - the repeated miscarriages and the constant pain caused by her injured column, pelvis and leg - that according to social conventions should have remained private and concealed. Kahlo doesn't hide anything: her aborted fetuses, the scars from

surgical interventions, the orthopedic instruments that pierce her body, the suffering and the tears (Zamora, 2005). In doing so she forces the beholder to acknowledge the relations of power implicit in any representation of the body, and simultaneously challenges her subordinate position within the patientdoctor hierarchy (Lomas, 1993). In this sense we can say that Ferguson walks in the steps of Kahlo, since the apparently narcissistic (and/or self-therapeutic) autobiographic nature of her work turns out to be a political claim, a statement of autonomy in the face of medical and social norms. However, where Kahlo let explode an unbearable sufferance that shocks the observer, Ferguson tries to craft and convey harmony. For instance, in The Broken Column of 1944, Kahlo put on display her chest cut open, in the tradition of the anatomical écorchés, exposing the broken spine in the form of a crumbling ionic column. The two halves of her body kept together by an orthopedic corset, the face flooded by the tears of a Mater Dolorosa, and the skin pierced by nails that remind the martyrdom of St. Sebastian, stand against the background of a barren landscape in which the sky and the sea melt in the distance. There is no place for softness and sensuality in this temple of sufferance, even though a complex erotic inflexion pervades this work as virtually all of Kahlo's paintings (Bonito Oliva, 2005). In The Broken Column Kahlo's backbone is made of stone, it stays still and inflexible in the artist's body. It hurts.

Nothing seems more alien to Ferguson's depiction of her own broken column, whose vertebrae she studies with a mix of tenderness, curiosity, and scientific precision. In Crouching Figure with Visible Skeleton (Figure 2) of 1996 Ferguson's deformed spine is exposed to vision, dramatically torn on the right, but the whole back, the arms, the reclined head and the leg are pervaded by the softness of most traditional female nudes. The paper itself, completely occupied by such an ambiguous body, shows an organic, bodily texture. Still, as Kalho's portraits, Ferguson's drawings of her tormented body do not elicit repulsion or pity in the beholder, they rather create a disorienting effect, because they expose what should be hidden, they show a body that looks beautiful and wrong at the same time, and they are suffused of eroticism (Dreger, 2004). This disorientation, the tension and conflict that Ferguson creates between

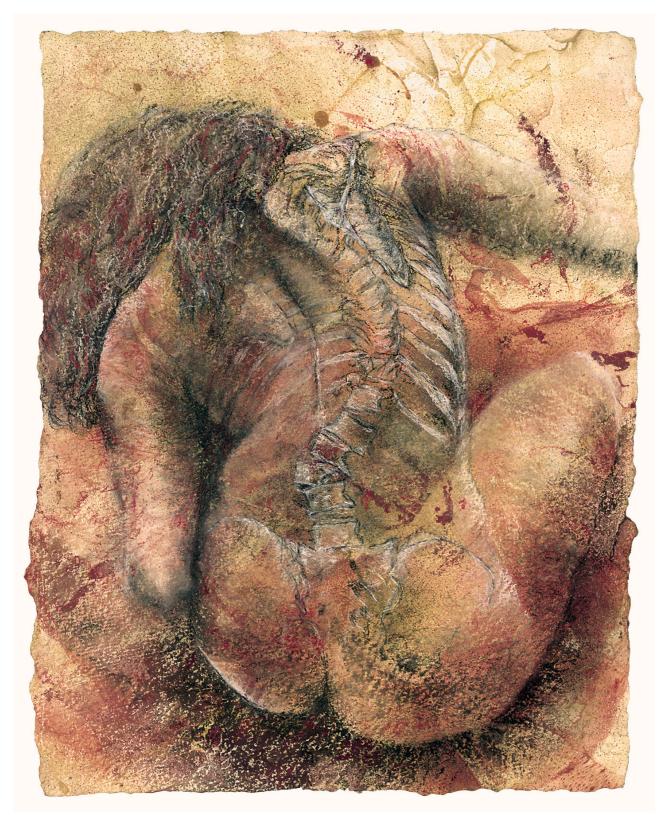


Figure 2 | Laura Ferguson, Crouching figure with visible skeleton, 1996. Courtesy of the artist.

what medical images are supposed to be (dry, objectifying, controlling) and what they become in her work (personal, sensual, empowering) question the objectifying power of the medical gaze (Foucault, 1963). As Kalho's portraits, Ferguson's drawings not only defy the medical gaze, but the very idea of gaze as a one-way exercise of power.

However, while Kahlo's paintings strike the beholder as an explosion of life, pain, disquietude, distress and rebellion, Ferguson's work has a much more subdued tone, as it displays the artist's search for a sort of anatomical wisdom that helps coming to terms with sufferance. She talks of "artistic knowledge," referring to the knowledge that springs from the making of an artwork. This knowledge is to a large extent embodied in the gestures of the artist, in all the actions that lead from her early anatomical studies to the final art. However, it also possesses a propositional component, since it is founded in a precise and specific research, and is fuelled by a quest for understanding. This artistic knowledge is translated into knowledge of the body, because Ferguson needs to think her deformity in visual terms, in order to come to terms and to celebrate her aching body and its unusual beauty. In this way art becomes a means to produce objective knowledge about the inner and outer body of the artist. This is a form of body knowledge that lies besides the preserve of medicine, and is used by the artist to claim her right to understand the object of medicine (the human body) in her own terms, putting artistic knowledge in dialogue on a par with scientific knowledge.

4 | ANNIE CATTRELL – THE WONDER FOR TRANSPARENCY

Cattrell, a Scottish artist based in London, deals with medical images and representations of the inner body from a completely different perspective. Not only she doesn't work on an autobiographical basis but, more importantly, she appears to have a different view of the relationship between art and knowledge. In a personal interview with the author, when asked: "Would you say that art is a form of knowledge?" Cattrell answered that she had never thought about that, and that she sees her work not as a means to produce knowledge, but as a way of asking questions about the wider implications of scientific research [4]. Cattrell makes extensive interdisciplinary research when she sets out to create a sculpture or an installation, and she actually works with scientists and technicians to produce some of her works, but the final artwork is not meant to be a piece of embodied knowledge, as in Ferguson's approach. It is rather a piece that embodies questions about the knowledge produced within scientific practices.

Much of her work as a sculptor is about the relationship between the inside and the outside, and about the consequences of making visible what is supposed to remain invisible. The human body is an important subject-matter of her work, and like Ferguson she finds inspiration both in classical anatomy and in the most recent technologies for visualization. In 2000 she made two versions of glass lungs, Capacity and Access, inspired by the ancient anatomical technique of corrosion casting. This technique consists in injecting into the circulatory system of a corpse a liquid substance that will eventually solidify, at this point the body is dissolved in some acid while the cast remains intact (an improved version of this technique is used by Gunther von Hagens to create the plastinated cadavers of his famous, or infamous, Body Worlds). Cattrell went back to the idea of corrosion casting in 2006 with Process, a crystal digestive tract, and with two sculptures in bronze: Inside, a gilded bronze cast of a heart and a brain, and From Within, a silvered bronze cast of a cranial interior. In these pieces she combines the longstanding sculptor's preoccupation of rendering empty and full volumes with the exploration of the visceral body, with its odd combination of invisibility and pulsating materiality. In Process she manages to imbue crystal with a certain organic quality, and in *Inside* she transforms the inner body into heavy, steady matter by infusing it with the visual and haptic quality of bronze, a medium traditionally used in sculptures that immortalize noblemen and warriors. These pieces look indeed as hunting trophies. Avoiding figurative illusionism, Cattrell displays the heart and the brain in a way that is antithetical to that of von Hagens', whose embalmed corpses struggle between educational realism, entertaining voyeurism, and outright moralism (van Dijck, 2005; Burns, 2007; Stone, 2011).

4.1 SCIENTIFIC VISIONS AND THE OPACITY OF THE FLESH

Anatomical casting was the inspiration also in *Nervous System* of 1998 (Figure 3), but here rather than

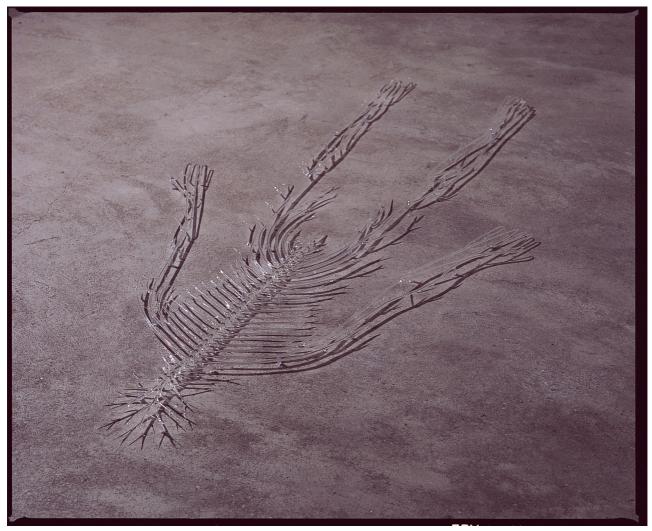


Figure 3 | Annie Cattrell, Nervous System, 1998. Courtesy of the artist.

dealing with the visceral body, Cattrell was challenged by the physicality of sensations and the mind. This glass sculpture is based on an ancient anatomical specimen consisting of four large wooden boards that serve as a support for the dried and varnished veins, arteries and nerves of a dissected body (brought to England from Padua in the seventeenth century, the four boards are currently patent to the public in the Hunterian Museum in London). In her sculpture Cattrell recreates a sort of crystal diagram of the human nervous system. Horizontally suspended at a few centimeters from the ground, the delicate and fragile sculpture casts a thin shadow, which is a metaphor of the sensations produced by our nervous svstem: the sensations we experience are unequivocally clear and real to us, but they have no more substance than a ghost (Di Marco, 2012a).

All these works point in a way or another to the ability of science to see through the flesh and to extract pristine and readable forms from the chaos of the inner body. The interior of the body is made external and the clean result does not bear traces of the complex and gruesome process of the actual dissection of a corpse. A revealing counterpoint to Cattrell's Nervous System can be found not only in von Hagens' Body Worlds, but also in the work of the artist John Isaacs. In his wax sculpture A Necessary Change of Heart of 2000 (Figure 4), Isaacs re-works the theme of anatomical waxes, actualizing the long honored medical-artistic tradition with into splatter anatomy, remindful of B-movies and criminal TV series' autopsies. Far from the neoclassic elegance and grace of the seventeenth-century anatomical models produced by the schools of Bologna and Florence, that nevertheless inspired him, Isaacs takes on the shocking realism of Gaetano Giulio Zumbo and Joseph Towne's (Ballestriero, 2010), and puts on stage the messy and violent reality of anatomical dissection, to the point of transforming the anatomical theatre in the counter of a butcher. In this real-life size



Figure 4 | John Isaacs, A Necessary Change of Heart, 1999. Courtesy of Aeroplastics contemporary, Brussels.

sculpture, composed of parts cast from the body of the artist, so that he becomes simultaneously the dissector and the dissected, we see a cadaver is torn in pieces, with the left foot and both arms missing. The bleeding corpse is crouched on one side, with the skin completely removed to expose the viscera, except for that of the right foot, whose integrity renders the whole sculpture even more disturbing, because we recognize it as a part of the human body as we know it, the body intact and alive. This artwork is open to multiple interpretations. When it was shown for the first time, in Basel, it was presented as a metaphor of colonial conquests, with the naming of the body parts connected with the naming of conquered lands, and with the act of naming corresponding to the act of taking possession (Kemp and Wallace, 2000). Here, however, I am interested in the uncanny realism of the artwork, in its blunt exhibition of the opacity of the body, in its presenting the dissolution of the boundaries between inside and outside as intrinsically messy, disorganizing and painful.

Comparing *Nervous System* with *A Necessary Change of Heart* one can understand what Cattrell means when she claims that transparency is one of her main concerns. In an interview she explained that her choice to work with glass is not dictated by the beauty and aesthetic quality of this medium, but rather by the fact that it allows reproducing the scientific way of seeing at two levels. On one level, glass, with its transparency, allows looking through, but at the same time prevents people from touching the real object (this happens with microscope lenses as well as with shop windows). On the other level, with its cleanness and delicacy, glass is closer to diagrams and models then to real bodies and, more importantly, it can be worked in such a way that the process of production of the final piece (the way glass fuses and is bond together) is not always evident, so it hides the process whereby something that was internal has become external, visible (Cattrell in Gere, 2004). While Isaacs' wax reveals the gruesome activity that allows to reveal the inner body - the uncanny transition between the external and the internal, the moment when the taboo set by the killing of Humbaba is broken - Cattrell exposes the ideal dimension of the scientific way of looking into things.

A way of looking that requires the extraction (or construction) of coherent structures, like diagrams and models, out of the dense opacity of reality. In this sense we can take the juxtaposition of *Nervous System* and *A Necessary Change of Heart* as a combined metaphor of the relationship between science and the real world, in that science tries to make sense of the multi-sensory confusion of the numerous layers that characterize reality through clear, readable, representations.

4.2 SEEING SENSES

Scientific techniques of visualization of the innerhidden body are at the center of yet another work by Cattrell, the sculpture series *Sense* of 2002-2003 (Figure 5), in which the artist resorted to advanced technologies of neuroimaging to explore the physicality of consciousness. It is composed by five bright acrylic cubes wherein irregular translucent forms seem to float. These amber-colored shapes



Figure 5 | Annie Cattrell, Sense-Seeing, 2002. Courtesy of the artist.

recall clouds or some blob, but they are not fortuitous. On the contrary, they are very accurate renderings of functional magnetic resonance imaging (fMRI) data that purportedly capture the mind in action. Functional MRI is used by neuroscientists to localize cerebral activities as diverse as hearing, suffering physical pain, appreciating an artwork or feeling an emotion (Kosslyn, 1999; Dumit, 2004). In practice, through fMRI one can measure little variations in the levels of oxygenation of hemoglobin in the brain. Since we know that the variations in the volume of blood flux and its oxygenation are related with the activity of the brain, we use variations in the ratio between oxygenated and non-oxygenated hemoglobin to measure neuronal activity.

To create the five sculptures that compose Sense Cattrell worked with rapid prototyping, a sophisticated technology used in neurosurgery to produce threedimensional plastic models of the brain from a vast array of bi-dimensional fMRI scans. Hearing, Vision, Taste, Smell and Touch show the patterns of mental activity corresponding to the stimulation of each sense, and in so doing they simultaneously materialize human sensations and abstract scientific data. For the neurophysiologist Colin Blakemore: "These sculptures isolate the mental activity of thoughts from the rest of the brain and make it visible in three dimensions, revealing the anatomy of a thought or a sense which can also allow an understanding of the brain as an organ in a constant state of flux" (Blakemore, 2002, np). In a similar vein art critic Marcus Kwint remarks that: "Sense is abstracted but also anatomically accurate. It eloquently encapsulates the dominant 'localization theory', which posits that discrete areas brain are responsible for particular of the psychological attributes and functions - a view with its origins in Descartes and even in fanciful Victorian phrenology. The clinically shiny, transparent acrylic suggests the historic display of gruesome human specimens in jars and Perspex cubes of formaldehyde in medical collections, but these 3D maps represent living experience" (Kwint, 2010, p. 32).

However, although *Sense* certainly encapsulates current (and dominating) localization theories of the brain-mind, one has to be really accustomed to visiting medical museums to link Cattrell's translucent cubes with the grim formaldehyde jars containing parts of human bodies often afflicted by some pathology or deformity. In my view, what strikes the spectator of Sense is first and foremost the purity and elegance of the forms and colors of the transparent cubes that protect and expose golden patterns. One is driven to get closer, to walk around the white plinths peering inside and through the cubes with a sense of awe and curiosity. We wonder if we are looking at the brain or at the mind, and it is impossible to say if the artist is inviting us to commit to neuroscientific explanations of subjective experience, or if she is eluding the theory transforming it into a beautiful object that stands on its own. Like in Nervous System the minimalist harmony of the sculptures belies the complexity of the process whereby Sense was produced. If in Nervous System the elegance of the final result hides the material process of molding glass, in Sense the simplicity of the artwork hides the complexity (both material and cultural) of the technology underlying its production. In the same way in medicine and the neuroscience the apparent clarity and readability of functional brain scans hide the complexity and provisional nature of the theories and scientific assumptions underlying the production of those very images. Cattrell work relentlessly questions those assumptions, while celebrating the awe inspired by the scientific exploration of the inner body and its mysterious functioning.

5 | CONCLUSION

Both Ferguson's and Cattrell's artistic production stands in the lineage of the Western tradition of the anatomical theatre, where the exhibition of the inner body was at the core of a web of political and social practices, and could refer to multiple meanings. As heirs of this tradition, however, the two artists follow very different paths and pose different questions about the relation between knowledge, science, art, and the inner body. Ferguson understands art as a way to self-knowledge. Her autobiographic drawings are self-portraits suffused with eroticism and pain, which serve the double aim of helping the artist to develop a deeper personal understanding of her own predicament and to create a public space for putting into question notions of beauty and deformity, normality and disability, first-person experience and medical understanding of disease. Cattrell takes a different stance. The autobiographical dimension is completely absent from her work, and the pristine

elegance of her pieces is devoid of any eroticism or carnality, even when she gives form to the heart, the digestive system, or the sense of touch. Cattrell puts into question the scientific knowledge of the body, its premises and consequences, by exploring and staging the promise of transparency intrinsic to the panoply of techniques of visualization of the inner body produced by Western medicine since its origins. Through the use of state of the art technologies combined with transparent materials, she creates a play of mirrors whereby the artist looks at science while it looks at the inner body, and she does so from without, from the distance - mediated by the formal quality of her pieces - that characterizes scientific objectivity. For all their differences, however, both artists take the invisible to vision, the private to the public, and they make us wonder about the opportunities and perils of living in an era when human beings can so easily look inside their own bodies, as if Gilgamesh had never defeated Humbaba.

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ENDNOTES

[1] The bodies used for dissections were those of criminals sentenced to death.

[2] Of course, anatomical atlases are not neutral representations neither from a stylistic point of view, nor from a moral and allegorical one. Still, they are considered an instance of art at the service of science rather than a form of art in its own right.

[3] When not otherwise indicated, statements and quotes from Ferguson are taken from The Consciousness of the Body, a hand-made book where he artist is collecting texts and drawings. It is a work still in progress, but Ferguson kindly provided me with her texts.

[4] Personal interview with the artist, London, 24th October 2011.

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