

## DDR STATEMENT

The present paper is framed within the overall context of our PhD studies in Design. Our research addresses the use of drawing in the design process, framed by the importance of sensation as it relates to the body. The investigation is at its core grounded-theory based, and in this sense it is not possible at this middle research stage to see a totally encompassing view of its outcome. With this in mind we have chosen to present a focused view on one of our tentative case studies that was relevant at a stage of the development of the thesis.

Our research is based on the importance of the body, thought of as the body of sensation. In our argumentation this notion of the body allows for particular sorts of operationalisation of drawing within the design process. In this particular paper we consider a singular point that we reached in our investigation – the argument for the notion of weight in drawing.

Our research is positioned on an overall field of exploration of possible developments for creative practice research. The empirical character of the investigation is at its core enabled by the study of cases from the world of art and architecture. The methodology is essentially design driven in a twofold manner - it addresses drawing as a procedural technique of design, but also considers the possibility that the use of drawing might represent a means of transcending its instrumental use as a mainly metric and representative tool in design practice.

## ABSTRACT

Our research explores the use of drawing in the design process, framed by the importance of sensation as it relates to the body. We argue that the notion of sensation might be relevant in a practice focused on strategies to reincorporate the body within design development. We propose this notion as a possible approach for drawing to transcend its use as a metric and predominantly representative tool. In the present paper we argue that within this framework, the use of drawing might be thought of as a means for exploration of relations between sensation and weight. The methodology consisted of a literature review complemented with case study analysis. Starting from drawings of sculptor Richard Serra we try to establish connections with other significant and expressive examples from art and architecture. We thus try to compare different approaches and to establish relevant and articulate connections between drawing and sensation.

## INTRODUCTION

Our PhD research is based on the recognition of the importance of the interconnection between the body and drawing within the design process, and in the scope of design, art and architecture. The body that constitutes the core of our research is the body of sensation - the body of the one that draws, of the one that designs. We argue that this incorporation of sensation within the design process enables a use of drawing that transcends its use as a mere metric or representational tool. We base our reasoning on some of the concepts developed by French philosopher Gilles Deleuze and the connections he establishes between body and sensation. And we argue that this is relevant in terms of design driven methodologies. This kind of framing of drawing practice, might allow for new approaches to the operational tool that drawing constitutes, and for the emergence of new meanings and new interpretations that configure a new richness to be enabled in the design process.

This particular paper focuses on a singular point; that of the specific study of the representation of weight in drawing. We consider that the drawing work of sculptor Richard Serra constitutes a possible example of a connection of sorts between the body, sensation and drawing. We consider the methodologies applied in the present study as design driven in the sense that we select our cases from art and architecture and compare them from the point of view of their intrinsic value seen as design tools; so in a sense, seen as the depiction of connections between sensation and weight in the scope of the design process.

## THE NOTION OF SENSATION AND THE BODY

As Paul Valery put it, Gilles Deleuze writes, sensation is that which is transmitted directly, avoiding the detour and boredom of conveying a narrative. (*Deleuze, 1981, p.36*)<sup>1</sup>

Deleuze discusses how the painter Francis Bacon talked about sensation and the configuration of form in a twofold manner. On the one hand a form related to sensation, that Deleuze names "*the Figure*". Conversely, the notion of form related to what it is supposed to represent – which he designates "*figuration*".<sup>a</sup> In this sense, Deleuze establishes a major difference between the representation of the body in painting - "*figuration*"-, and the presense of the body itself - "*the Figure*". It is thus the presence of the body that allows for Deleuze's notion of "*sentiendum*"- of diverse levels of sensation<sup>b</sup>.

These diverse levels allow us to engage with painting – and with representation in general, and in our particular case, we argue, with drawing – in different ways. It allows representation to acquire a diversity and richness of content that makes its interpretation unique and particular to each one of us and enables the emergence of new meanings and new interpretations that configure drawing as an extremely rich operational tool in itself, and in design processes in particular.

## DRAWING IN ART AND ARCHITECTURE

According to Philip Rawson<sup>2</sup> drawing might be defined as the element of a work of art independent from colour or actual tridimensional space, with its structure defined by tone alone. Drawing has always been fundamental in art as a form of study or on its own right. Its recognition as an autonomous discipline might be situated at the beginning of the Renaissance with the influence of Giorgio Vasari. For the Italian historian, drawing - "*disegno*" – was both the physical act of drawing and the mental process of design. (*Seligman, 2019, p. 12*)<sup>3</sup> As a means to an end – in the context of painting and sculpture and architecture, drawing has always been present and has always been structural.

We argue in the scope of this study that both in art and in architecture the representation of weight might address one of the possible means of transcending the use of drawing as solely metric or representative tool. We defend that different ways for drawing to acquire richness in its interpretation, enabled by the integration of sensation, allow the emergence of new meanings and new interpretations that configure drawing as a rich operational tool in design driven methodologies.

## DRAWING, THE BODY AND SENSATION

One might suggest examples of possible representations of weight throughout the history of art and architecture. We argue that we can find representations of the human figure and of spacial relationships that conceivably correlate to this notion of sensation and weight.

Drawing is constructed by the particular selection of elements that constitute it. As Descartes defined, "*the bit of ink scattered over a piece of paper*" is able to convey "*forests, cities, men and even battles and storms*". Manfredo Massironi<sup>4</sup> writes about the duality that drawing might be considered so simple and yet so powerful, like in the words of Descartes. On the other hand, Massironi also refers how for authors such as James Gibson drawing represents an "*impoverished perception*". That "*impoverished perception*" does not preclude a rich and meaningful drawing, we suggest. In line with the concepts of Massironi we argue that the choices that are done in the process of drawing itself mean rather that the elements that are elected represent its particular and singular strength. Massironi references Leonardo da Vinci and his pursuit for a type of anatomical drawing that would be more legible than the observation of the human body itself. The fact that his drawings are still used by surgeons today as learning tools substantiates his 500-year-old efforts.<sup>A1</sup>

From Deleuze we associate drawing with a notion of becoming, with the state of flux at the base of what drawing embodies; what Gilles Deleuze names a "*diagram*". In a cultural object like painting, for example, diagram theory looks for essential states of abstraction within the very figuration of an image. It also shows the far-reaching connections at play in a work of art, and the multiple parts that make up the assem-

blage. A particular focus also enables drawing to connect to different contexts, different interpretations, and we argue in line with Deleuze, in last instance, to different levels of sensation. In a sense, this notion will be more connected to “the Figure” than with the idea of figuration. Peter Eisenman underlines that the construction of a representation of something is not the thing itself. And in that sense it cannot help but be embodied – it must come in a substantial way from the body - from the one who designs. (Zdebik, 2012, p. 8)<sup>5</sup>

So, in our argument there is a very direct connection between an idea of drawing that one might call Deleuzian on a twofold condition: drawing as a richness taken from the notion of diagram, and drawing connected to an idea of incorporating the body of sensation.

## DRAWING, WEIGHT AND REPRESENTATION

We find examples that we associate with the representation of weight in drawing both in architecture and in art in general. In “Studies for the Libyan Sibyl” (fig.1) we find first of all a study of the relationship between skeleton and muscles that is singular to Michelangelo. This drawing in particular provides a distinct vision of the human figure and details how its structure is distorted by torsions and positioning. Michelangelo shows with unusual clarity how the whole articulates and positions itself and how the human figure withstands gravity. The detail of the foot is particularly important as it makes this articulation explicit, as one of the extremes of the body touches the ground and the weight of the body, the consequence of the action of gravity, imposes a deformation on it. On Raphael’s example (fig.2) we have a depiction of how two human masses interact with each other and how the whole adapts to gravity and is deformed by it. A mass through gravity acquires a weight.

Sensation is translated by drawing on the one hand, and on the other sensation enables us to interpret the forces at play. Sensation might also lead us into other sorts of connections with weight. We argue that we might find two very clear and yet distinct and, in some way, contrasting

<sup>a</sup> “When Bacon speaks of sensation, he says two things, which are very similar to Cézanne. Negatively, he says that the form related to the sensation (the Figure) is the opposite of the form related to an object that it is supposed to represent (figuration). **As Valéry put it, sensation is that which is transmitted directly, and avoids the detour and boredom of conveying a story. And positively, Bacon constantly says that sensation is what passes from one “order” to another, from one “level” to another, from one “area” to another. This is why sensation is the master of deformations, the agent of bodily deformations. In this regard, the same criticism can be made against both figurative painting and abstract painting: they pass through the brain, they do not act directly upon the nervous system, they do not attain the sensation, they do not liberate the Figure —all because they remain at one and the same level. They can implement transformations of form, but they cannot attain deformations of bodies.” (Bacon, 1981, p.36)**

<sup>b</sup> “In aesthetics, which Deleuze takes up through his study of Francis Bacon in *The Logic of Sensation*, **sensation is what strikes a viewer of a painting or the reader of a poem before meaning is discerned in figuration or a thematic design.** It has the productively deformative power of defacing the representations that cause it to be felt. It is also what vibrates at the threshold of a given form; in other words, what causes the ‘appleness’ of the painter Paul Cézanne’s apples to be felt as the geometric and painterly abstractions that they become in the field of his still lifes.” (Parr, 2015, p. 244)



Figure 1 - Michelangelo Buonarroti, Studies for the Libyan Sibyl, 1510 28.9 x 21.4cm



Figure 2 - Rafael Sanzio, Man Carrying an Older Man on His Back, 1513, 30 x 17.3cm



Figure 3 - Giovanni Battista Piranesi, Le Carceri d'Invenzione, (The Staircase with Trophies), 1750, 54.6 x 40cm

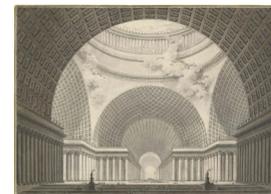


Figure 4 - Étienne-Louis Boullée, Perspective View of the Interior of a Metropolitan Church, 1780/81

cases in the visionary work of Giovanni Battista Piranesi and of Étienne-Louis Boullée. In one of Piranesi prints, the spatial ensemble is constituted by means of nuances of darkness and light. On the other hand, in the case of Boullée, the drawing is clear and linear. We argue that the imposing visual elements and the way the space is enclosed around the viewer, creates a feeling of weight. In one drawing we have a a feeling of weight by the stark contrasts and feeling of depth and on the other by the feeling of constrain. In both drawings we find ourselves incarcerated in some way, by a drawing that makes us feel “enclosed”. And this feeling of enclosure is something that we argue, can be linked to the existence of a body and to sensation.

## DRAWING AND WEIGHT IN THE DRAWING WORK OF RICHARD SERRA

Dave Rosand describes in “Drawing Acts”<sup>5</sup> how a single line upon a surface immediately transforms that surface, transfiguring its neutrality into something new. In the same way Walter Benjamin points out how the line changes or activates what it is drawn upon, or “confers an identity on its background”. (Seligman, 2019, p.9)<sup>3</sup>

According to Serra, the shapes that his drawings study have their origin in a glimpse of a volume, of a detail. In our argumentation these drawings induce a perceptible feeling of weight. Richard Serra manages to create and translate this kind of almost physical sensation through an economy of means we consider not short of remarkable. Serra uses a linear drawing focused on issues such as the positioning and organisation of the represented pieces. The layout by which each element touches the ground becomes revealing of an experience of the presence of weight in the objects themselves. We see the outline of the projected sculptural elements (fig.5) in a much lighter and slightly grained line that possibly represents how each of the pieces would look like if its edges that touch the ground were equal. Diversely, the strongest trace registers, at the base, the distortion that Serra explores and that characterises the piece - and later is materialised in

the built piece.

On *"Untitled"* (fig.6) we can observe a very concise and simple drawing of a polygon. Yet this simplicity conveys a strong tension on the surface. In a different approach from (fig.5) we can distinctly be driven toward a sensation that surpasses the simple rendition of a three-dimensional object. We consider that this case also transmits a clear notion of weight. We can observe the torsion of the element, and in order to relate to this torsion we are driven in some way to *"feel"* the forces present in such element. In our perspective it is this connection to sensation that enables the capacity for a particular drawings like this one, to surpass the representational level and evolve into a field where sensation might be considered present. It goes beyond abstract thinking and achieves a connection with the body and with sensation. We think that we might compare these drawings to the historical precedentes mentioned. In Michelangelo and Raphael we find particular representations of how the whole human figure articulates and positions itself to deal with the force of gravity. These *"constructions"* achieved by drawing, become almost present, almost palpable through the selection of the elements that compose them. Sensation is translated by drawing in the sense that the fundamental elements in each of these drawings – the weight set on a foot, the weight conferred on a shoulder - are elements to which we can relate very distinctly by our own experience enabled by our own very body.

We argue that these values are closely related to sensation, or more precisely to a representation of forces that we relate to, enabled through our own sensitive experience. It is via sensation – albeit concrete or the memory it triggers – that we relate to the elements of these drawings and it is through sensation that they acquire and transmit the feeling of weight. The body of sensation enables it and capacitates our almost physical relation with the drawings. Deanna Petherbridge writes that Richard Serra doesn't make drawings *"to depict, illustrate, or diagram existing works"* or as studies for sculpture - *"The shapes in paper drawings originate in a glimpse of a volume, a de-*

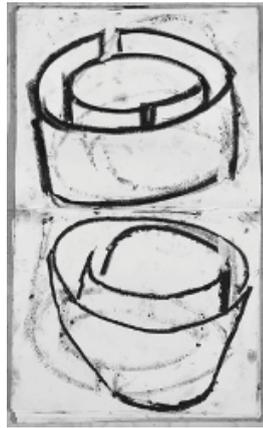


Figure 5 - Richard Serra, Double Torqued Ellipses, 2003-2004, 31.1 x 36.8cm

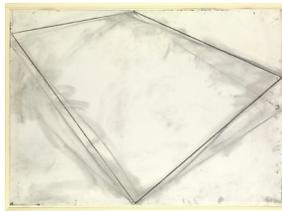


Figure 6: Richard Serra, Untitled, 1972, 74.9 x 105.4 cm

**c** *"Perception is never a mere contact of the mind with the object present; it is impregnated with memory-images which complete it as they interpret it. The memory-image, in its turn, partakes of the "pure memory," which it begins to materialize, and of the perception in which it tends to embody itself: regarded from the latter point of view, it might be defined as a nascent perception." (Bergson, 1896, p. 133)*

Image references:

- Fig.1  
<https://www.metmuseum.org/art/collection/search/337497>  
Fig.2  
<https://www.christies.com/features/Raphael-The-Drawings-8368-1.aspx>  
Fig.3  
<https://artmuseum.princeton.edu/collections/objects/86632>  
Fig.4  
<https://www.britannica.com/biography/Etienne-Louis-Boullée>  
Fig.5  
<https://makingarthappen.com/2011/07/29/richard-serra-de-senhos/>  
Fig.6  
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<sup>6</sup> Petherbridge, D. (2010). *The Primacy of Drawing: Histories and Theories of Practice (First edition)*. Yale: University Press.

<sup>3</sup> Seligman, I., Riley, B., & Chapman, H. (2016). *Lines of Thought: Drawing from Michelangelo to Now*. London: Thames & Hudson Ltd.

<sup>2</sup> Rawson, P. (1987). *Drawing*. Pennsylvania: University Press.

<sup>5</sup> Rosand, D. (2002). *Drawing acts: Studies in graphic expression and representation*. Cambridge: University Press.

<sup>4</sup> Zdebik, J. (2012). *Deleuze and the Diagram: Aesthetic Threads in Visual Organization*. London: A. and C. Black.

Internet Sources:

A1 *"The Secret of Drawing"* Episode 1: *"The Line of Enquiry"*, Andrew Graham-Dixon, 2005  
<https://www.youtube.com/watch?v=9H59cVnnFY>

*tail, and edge a weight"* <sup>6</sup> (Petherbridge, 2010, p. 428). In this sense, drawing for Serra refers to an index of self-referential structures - thus linked to memory. We find in Serra a work that is strongly connected to the physical side and to the interaction of his own body with the work - *"Hand catching Lead"*, for example - or with the bodies of those who experience his work - *"Walking is measuring"*. And memory, as Henry Bergson expresses<sup>6</sup>, in order to exist will need the existence of a body.<sup>7</sup>

## CONCLUSIONS

We argue that in order to comprehend sensation and drawing we have once again to return to Deleuze. The French philosopher explains how for Francis Bacon sensation is the master of deformations, the agent of bodily deformations.<sup>a</sup> Deleuze asserts how Bacon says that in order to reach sensation, further than the brain, we need the nervous system. To liberate *"the Figure"*; to pass from one *"order"* to another, from one *"level"* of sensation to another. According to Massironi <sup>4</sup> we might find a deep and meaningful mutuality between the material components of images and the activation of the perceptual and cognitive processes that create and decipher them.

And we argue that this concept of drawing is one of the possible means of transcending its use as a more limited metric representative tool.

We propose that ways of integrating sensation might represent relevant tools in design development. On the overall, we propose that these are relevant notions to the extent that they provide an important approach and outlook into the design process.

It is our argument that a contemporary outlook on design methodologies might be enriched by an approach that is less focused on the hegemony of the contemporary myriad of digital tools, and more focused on the path towards a re-integration of the body within design development methodologies. The body that enables this potential and tentative process is the body of the designer himself, the body of sensation.