



Drawing and Visualisation Research

LIKENESS, ABSTRACTION AND KNOWLEDGE: WHAT DO WE KNOW IN OBSERVATIONAL DRAWING?

Prof. Eduardo Côrte-Real^a

^a IADE Creative University – Institute of Art, Design and Enterprise, Lisbon
eduardo.corte-real@iade.pt

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tracey@lboro.ac.uk

Special Edition:
Drawing in STEAM

*"The astonishing reality of things
Is my discovery every day.
Each thing is what it is,
And it's hard to explain to someone how much this makes me happy,
How much it's enough for me."
Alberto Caeiro (Fernando Pessoa's heteronym) 2007*

LIKENESS



FIG.1. RUSSELL SQUARE, LONDON. AUTHOR'S DRAWING IN SITU, LONDON, MAY 2012

This paper is about observational drawing.

In the matter of knowledge and drawing there is a tendency to investigate the power of drawing within the process of acquiring knowledge. For this we usually isolate disciplines that use drawing both as a cognitive skill and as a procedural skill. In this case we are referring to observation as part of scientific methods, thus underlining the importance of observing through drawing, different from observing and writing, observing and photographing, observing and filming or simply observing. In this paper, however, we would like to inquire about the pure act of knowledge that observing by drawing or drawing as if observing contemplates.

One matter that interests us most is the fact that the expertise of drawing by observing is difficult to accomplish. On the other hand it is also interesting that apparently it is very easy to add meanings to very simple drawings, as we well know from Miffy, Hello Kitty and Smile. In any case, we rarely look at drawings as systems of signs of strict graphic meaning. Only a highly educated mind or, strangely, a victim of visual agnosia, (like the man that mistook his wife for a hat described by Oliver Sacks in 1998), will look at a drawing in a purely syntactical way. Looking at Fig. 1. we rapidly “respond” to the drawing by identifying “Trees”, “Benches”, “Lamps”, “Buildings” arranged in such manner that the meaning “Park” will arise. For Londoners it may even look as a familiar place. This is crucial.

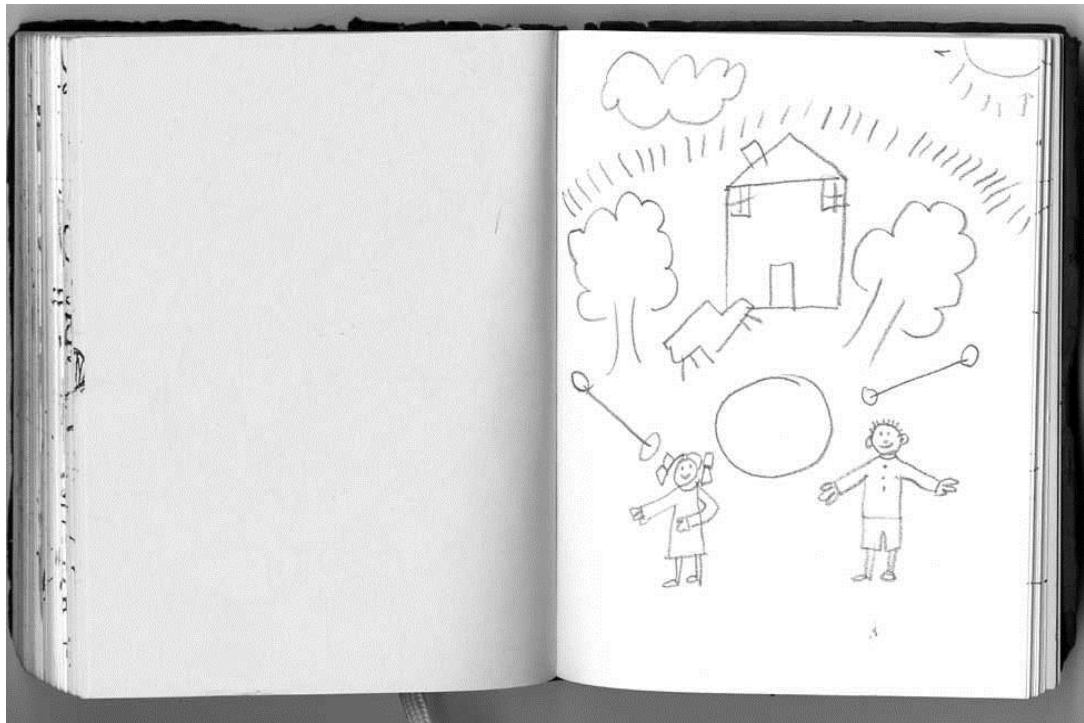


FIG. 2. RUSSEL SQUARE PARK AS IF DRAWN BY A CHILD, AUTHORS DRAWING, MARCH 2013

Whereas the same sequence of meanings could arise from Fig. 2, it would be almost impossible to recognize Russel Square’s Park as seen from a determined point of view. We may admit that in both drawings, meaning is deployed by graphic conventions but only the first truly evokes the experience of observing, connecting the action of drawing with the human perceptual visual experience.

In modern times, in the so called Western Culture, is often highlighted Brunelleschi’s device as the inaugural moment for drawings that look alike our perceptual visual experience. This device consisted, according to the legend narrated by the painter Mannini and studied amongst others by Martin Kemp (1990: 12,13), of a mirror, a painted tavola depicting a view of the octagonal baptistery of S. Giovanni in front of Santa Maria dei Fiori,

in the city of Florence, and not less important, the represented authentic building¹. The user, placed on a precise point, outside the doors of the cathedral peeped through a hole in the back of the tavola and rotated a mirror in front of the painting that either reflected it or, by sliding down, let the real building be seen.

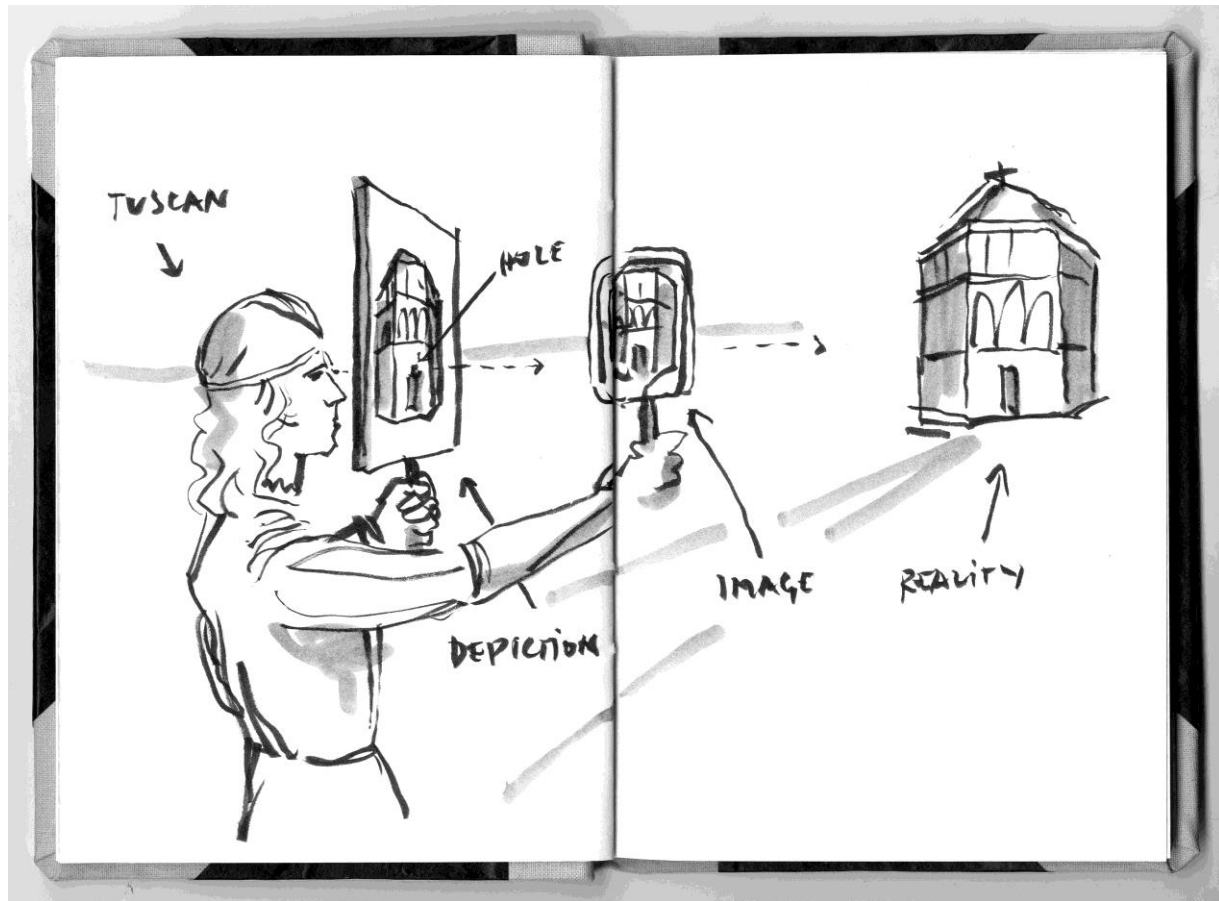


FIG.3. BRUNELLESCHI'S DEVICE. AUTHOR'S SKETCH, AUGUST 2012

This device allows us to define different concepts related to observational drawing. First: Reality. The Baptistery is something real. It has all the attributes of reality. We cannot go through its walls, we are protected from rain inside, and we see it from a certain distance as well as closer. If we care to test it, it even has smell and taste. Second: Image: The entity that is formed in the mirror. It might sometimes fool us, and be mistaken for reality, but the baptistery in the mirror is clearly an image of the baptistery's depiction existing only because the real painting exists. This is not reversible; there is a hierarchy between them. Third: Depiction. Although also an image, a depiction has a technical demand that is not

¹ Kemp describes also a similar device with the Palazzo della Signoria. The perspective on this case would demand two vanishing points. In the early Renaissance this method was not yet controlled so it is even more legendary.

automatic. Also, the difference between the image in the mirror and the one in the tavola is that we can't stop the mirror from producing countless images when moving. However, the depiction is fixed on that view of the baptistery, even if you carry it all the way through the bridge over the Arno River and put it in front of S. Lorenzo church.

Because we see things and understand that we are seeing, we can also say that we form images that we call mental images. We think with our brains and we only see because, not only we have eyes, but also because we have brains to process the photons transformed in nervous signals in our retina. Since we admit that the brain processes visual experiences into images we started to think that we are able also to imagine, i.e. to mentally produce images. Dreams and REM, rapid eye movements, testify this internal imagery and also its connection to the external visual apparatus.

Visual experience may be, therefore, of the purely intellectual sort, like a square (and we must admit that the experience of square, once defined, may be imagined and thus gain a visual kind even if the individual has never seen a square), or of the intellectualized sort since it restores the experience of having observed/seen something and understanding what it was. Drawing is a way of externalizing mental images by creating a new image that, if related with something real, may depict it, if it looks like the real thing. Brunelleschi's experiment was designed to show, prove and demonstrate that he had achieved a process of rightful depiction, in that sense, superior to the previous ones. The image in the mirror once reflecting the painting was exactly the same as when the mirror was not visible and thus everyone could see the real baptistery and its depiction, for what is expected in a depiction, as rightful.

Although not constructed only by observation, the painting in the tavola, as we have seen, allows us to clarify what reality may be related to an image of it and, from the countless images of it, underline depictions of it. We should clarify also that observational drawings include those done by observing things and those done as if done observing things. We shall call observation drawing to the ones done in the presence of the thing depicted and observational to both.

Dürer's devices, almost a century after Brunelleschi's, were based on the coincidence of geometry and optics. In these settings is even more clear the separation and relations between reality, image and depiction. Also we can speak here strictly of observation drawings. In Figure 4, a reclined woman is real, in the framed grid the author sees an image that is depicted in the paper.



FIG. 4. ONE OF DÜRER'S DEVICES FOR APPLIED PERSPECTIVE. AUTHOR'S DRAWING FROM DURER'S ENGRAVING.

So we might say that the first knowledge an observation drawing shows is the knowledge of perspective. Not of Perspective, as a set of geometric rules, but fundamentally of perspective as a determined position relative to what is observed that creates “The Image” to be copied.

Ideally the observer should not move and the observed should be immobile also. This stillness implies that we create an observation apparatus. So, the second thing we know in observation drawing is that the device eye-brain-hand is not a simple seeing apparatus but an observation device. And a special one: a device to depict. This process of observing for depicting and depicting requires time, time made of attention, concentration, and precision. This is a conscious interruption of the normal flux of existential time. When doing observation drawing we know how to control time. This goes from micro time implied in copying a small section of reality to a bigger time, the time the author decides to give to the whole depiction. In the proceedings of the symposium on drawing, cognition and education a few authors focused on the study of time, namely Angela Brew (2011: 67-72), Ruben Cohen-Cagli (2011: 73-78) in the micro time and especially Michelle Fava (2011, pp.79-85) in the macro time. These studies emphasise that, if we really try to obtain likeness, we should concentrate on seeing entities in reality that may economically represent it, thus depicting it through its image. I say economically because it is impossible to import the

whole section of reality we are observing. So we have to select forms able to be translated in lines, as we notice in most drawings. As we will see next, this is a cultural translation. So also by drawing observing we learn to translate visual information that is overwhelming in “stenography” that may be understandable in a culture.

Likeness Revealed



FIG.5. CONFERENCE LUNCH AT CHELSEA COLLEGE OF ART AND DESIGN, LONDON. AUTHOR'S SKETCH, MAY 2012

Leon Battista Alberti explained, a few years later Brunelleschi's Show in his treatise *De Pictura* (1435) through geometric constructions. This was consistently demonstrated by Masaccio's *Holy Trinity* and so many Piero della Francesca's or Vittorio Carpaccio's paintings among so many others. The geometry, explained by Alberti uncovers a process that he calls in Latin some times *circonscrizone* (contour) and in others *lineamentis* (design) which himself later translates to Tuscan Language as “disegno”, as we (Eduardo Corte-Real & Susana Oliveira, 2011: 85-87) already stressed. The separation of *disegno* as preparation for a painting was already noted in Cennino Cennini's “*Libro del Arte*” written in the late thirteen or early fourteen hundreds. He describes drawing (*disegno*) very much as we still do it today. At a certain point, he declares: ‘Sai che te avverrà praticando il disegno di penna? Che ti farà sperto, pratico e capace di molto disegno entro la testa tua. (Cennini, circa 1400-1982: XIII, 10).

[Do you know what you will gain by practicing drawing with a pen? It will make you an expert, competent in practice and able of having lots of designs in your head.]

Cennino pointed out that *disegno* was both external and mental. A geometric device such as *prospettiva pingendi* [perspective for painting], as Della Francesca later termed it in his treatise, is clearly a mental construction that, when externalized by drawing fits in visual experience. Although observational, Piero's paintings, for instance, do not depict a reality but they depict something as-reality. The Ideal Cities attributed to his circle propose a new reality presented as if it has been depicted. Although not representing any existing city in Italy or elsewhere they depict possible cities with vivid likeness.



FIG. 6. LUNCH AT PIERO'S. AUTHOR'S DRAWING IN SITU, IDEAL CITY #1, AUGUST 2012. THERE IS NO RESTAURANT IN FRONT OF THIS IDEAL CITY'S TEMPLE BECAUSE THE CITY DOES NOT EXIST, BUT IF IT WOULD EXIST IT WOULD MOST LIKELY HAVE ONE.

So, observational drawing, as we suggested before, includes observation drawing and other drawings made as if something was observed. For these drawings the problem of likeness is critical. Almost paradoxically, being alike something that does not yet exist, or may even never exist is vital for depiction's success. On this matter, knowing perspective allows us to create less ambiguity. The resemblance between perspective as geometry and optics helps greatly to achieve acceptable likeness. To make observational drawings of things that do

not exist demands not only knowledge of perspective as we define it previously but requires also knowledge on how perspective works. Knowing the geometry of vision is not mandatory in drawing by observing but is easily interiorized if likeness is achieved. The same happens with conic perspective geometry. The path initiated by Brunelleschi allowed that some activities like Design or Architecture could rely on drawings of absolute likeness with things that are not yet produced or built both by conventional notation as for visual similitude. For centuries drawing as art, relied also in likeness.

Likeness that we like

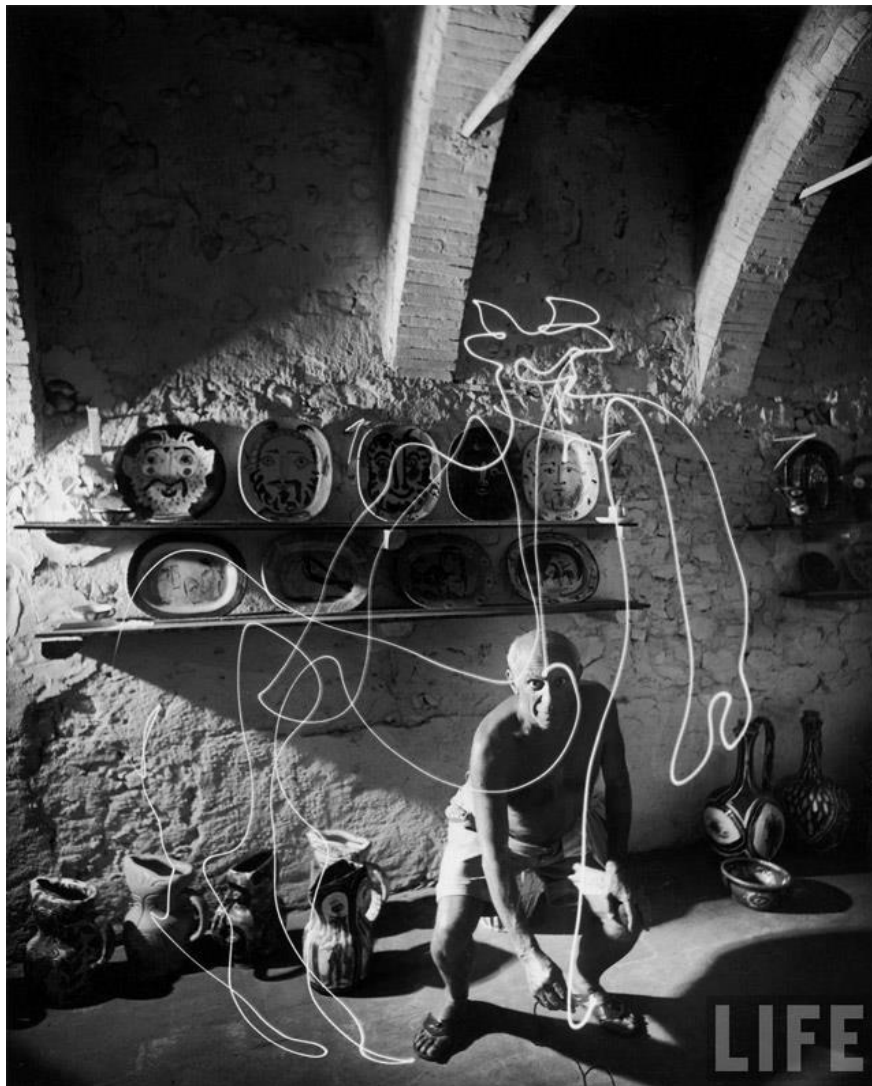


FIG. 7. PABLO PICASSO DRAWING WITH A FLASHLIGHT. GJON MILI, 1949

Some of the most famous images related to Drawing as art are Picasso's light drawings. The story of these images is briefly described in LIFE magazine's website:

“LIFE photographer Gjon Mili visited Picasso in 1949. Mili showed the artist some of his photographs of ice skaters with tiny lights affixed to their skates jumping in the dark—and Picasso's mind began to race. The series of photographs that follows—Picasso's light drawings—were made with a small flashlight in a dark room; the images vanished almost as soon as they were created.”(LIFE website 2012)

These images are normally shown to express immateriality in drawing and authorship in any medium. Fixed by a few seconds of exposure, the image strikes us because of its instantaneous temporality and graphic frailty. Yet the consistency of Picasso's style also strikes us (knowing that the camera had managed to see the whole picture only after the film being developed) not only because of the expressive quality of the line, but also because of the particular thematic chosen by the artist. One of the immediate exercises of the viewers is to attribute a name to what is drawn. Some drawings are more clearly about what we can call them (in fact the LIFE website call them several names such as “centaur”, “elephant”, “vase of flowers”) and some more ambiguous. We must note that there is also an exploit character in these images in order to prove Picasso's genius. Circling around, like anyone does with a cigarette in a summer moonless night, wouldn't do the trick. Picasso uses his icons. Consequently, the drawings look like something, even the ones not particularly clear, look like something. We may discuss if the elephant is not, after all, half a bull, or if a vase of flowers isn't an explosion of a volcano. Although the images are the testimony of a gesture, they are also meaning bearers (multiple meaning bearers if ambiguous). In a sense, they correspond to the etymology of drawing and the etymology of disegno. Gesture and meaning: To draw, and to sign (di-segno).

The first lesson we may take from these drawings on the limit of Drawing (because of its instantaneous sort only revealed by photography), is that, if something is a drawing, it looks like something. In consequence, the problem of likeness in Drawing is not how to get drawings to look like something but quite the opposite: Drawings always look like something. It is almost impossible to make drawings that don't look like something. This is another standpoint of knowing through drawing: we know that drawing looks like something.

Another circumstance is that these drawings look like Picasso drawings. Of course, they were made by Pablo himself, one might say. Picasso draws them to look like his drawings. Firstly, because of the theme he chooses and secondly, because he mimed his own gestures as if he was drawing on paper or canvas. Anyone that has experienced making drawings with very small lights in the night knows that we can only see the trace of the past fraction of a second. So Picasso had only a physical memory and a mental image to rely on. This brings me to one more thing we know by knowing how to draw: drawing is a showing device. A device made not for only showing what we depict, but also for showing what our gestures look like. We know that gesture is of consequence. We know how to move our hands according to our will to the limit of artistic expression.

In that sense we like the ambiguous likeness of Picasso's drawings. But this ambiguity does not mean that they aren't alike something, it means that they are alike many things. Also to the limit of been alike other drawings, and this also deals with the cultural translation that we spoke before.

This is the one of the main notions that we have been dealing with in this paper: It is hard to find a drawing that doesn't look like something (obviously it is not the drawing that looks like something but our "incontrollable" capacity of seeing likeness that makes it look like something).

As Donald, D. Hoffman (2000: 23) placed it "The image at the eye has two dimensions; therefore it has countless interpretations". This physiological oddity doesn't trigger immediately incommensurable meanings on every sight. It points out the fact that drawings share with the image at the eye a two-dimensional nature. This means that our way of seeing drives us towards the interpretation of two dimensional images. This is equivalent to say that we are driven to interpret drawings. Drawings are petrified gestures but they are also and mostly generators of signification. The particular shape of visual entities that look like lines in the things that we observe (or create as if we were observing) is the first think that we need to know in order to draw something with lesser ambiguity. Also, by knowing this so well we might have to disregard it, if clarity is an obstacle in an artistic proposal.

So, in conjunction with the previous knowledge we have discussed (knowledge of perspective, knowledge on controlling time and knowledge of a cultural stenography), knowledge that drawings always look like something drives us further deep in understanding the nature of observational drawing. If drawings always look like something, the challenge lies in making them look like a precise thing and not alike anything.

ABSTRACTION

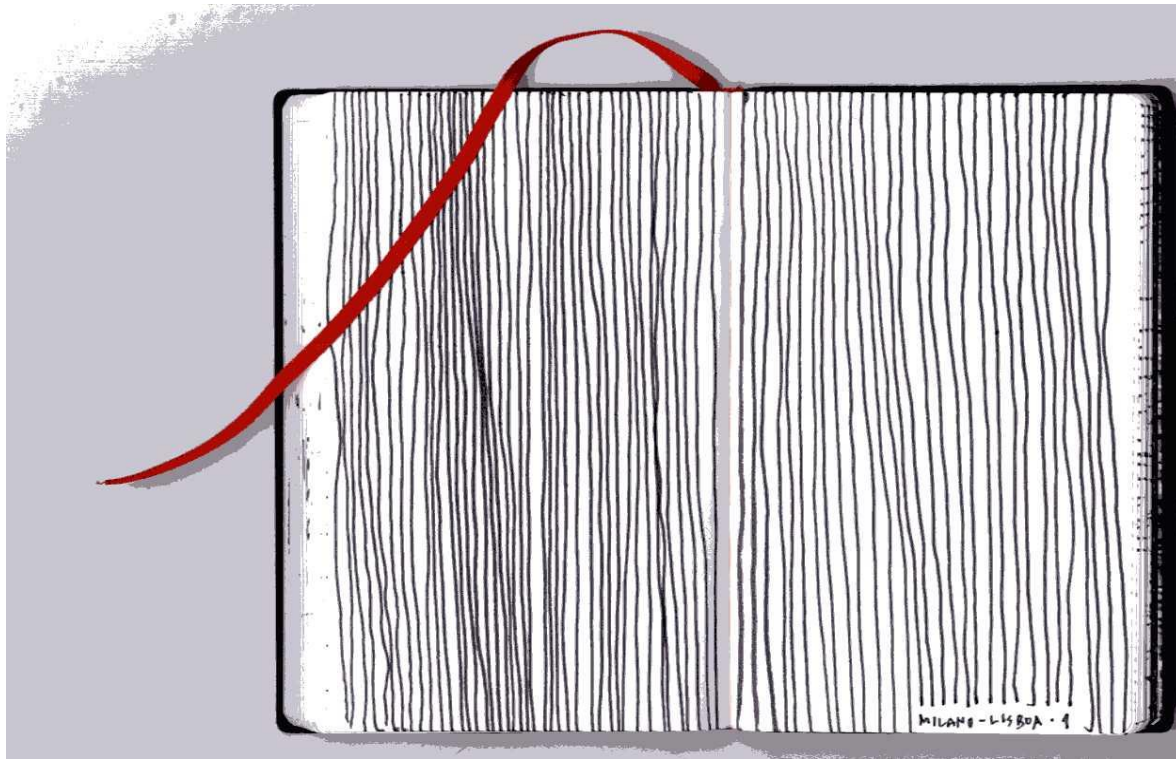


FIG.8. MILANOLISBOA, AUTHOR'S DRAWING IN FROST ART MUSEUM DRAWING PROJECT, AIRPLANE BETWEEN MILAN AND LISBON, OCTOBER 2009

“The words or the language, as they are written or are pronounced, don’t seem to perform any role in the machine of my thoughts. The physical entities that look like elements in thought are certain signs and images more or less clear that can be «voluntarily» combined or reproduced [...] these elements are in my case of the visual type”. (Einstein 2005 [1954]: 170)

These were Einstein’s words, in 1945, responding to Jacques Hadamard’s survey about mathematical thought².

² The quotations from Einstein are from the book edited in Portuguese as “Como Vejo A Ciência a Religião e o Mundo” [How do I see Science, Religion and the World] Trans. José Miguel Silva & Ruth San Payo Araújo, Lisboa: Relógio d’Água Editores, 2005 out of extracts from three books: The world as I see it (1954), Ideas and opinions (1954) and Out of My Later Years (1956). According to the publisher, the complete writings are still being collected and printed by the Princeton University Press...

In a conference, in 2009 held in Lisbon, Martin Kemp captured the audience attention with these words. Although discussing the intuition of artists relatively to some structures common to science, namely the platonic solids, the folding and the explosion, Kemp's quotation of Einstein introduced a question of similarity in visualizing for mathematics and visualizing for art. Although we tend to restrict mathematical thought to algebraic exercises, the matter of visualization is present in many areas of mathematics, being geometry the more evident. A cube or a sphere, or a line can be "seen" or visualized in the mind, and its nature is particularly of that kind. Yet they are considered abstract entities. Whereas likeness is commonly connected with our perceptive experience, abstraction is connected with intellectualization, although we may say that an orange looks like a sphere and, by all means, a drawing of an orange looks like a circle, looking both like an orange and a sphere.

Kemp's expertise in Leonardo Da Vinci and Science related with art conjures our interest in Einstein's statement. He speaks about entities that "look like elements" as "signs and images". Since Einstein's thoughts mentioned in Hadamard's survey deal with theoretical Physics, we may infer that the elements (signs and images) are of an abstract character.

Einstein described the relation between the sensible world and abstraction "not as the one soup has to beef but as the one a jacket has with a number in a cloak room" (Einstein 2005: 113). This means that the sensible world is not in sequence, is not of the same character, with the abstract world but there must be a law connecting both worlds. This connection allows highly complex facts in the sensible world to be processed in the abstract world. In fact, the existence of an abstract world allows the development of independent thought of the visual type, "combined or reproduced" that, due to its internal logic, may be confronted with the sensible world and more accurately describe its phenomena. The counterpart of this process neglects the complexity of individual elements and focus on relevant arrangements for their relations.

The miracle of knowledge is the miracle of a connection between the abstract world and the world itself (closer to the sensible world) by always putting on hold some of the intrinsic qualities of elements found in reality.

Apparently observational drawing has nothing to do with this. In fact it seems the opposite of this. However there is something that is worth consideration: Like in Physics, in Drawing there are very few people that are able to master the technique of producing images of satisfactory likeness with the "sensible world". And, by the way, it is even more difficult to master a technique of producing images that are not so alike reality, yet please us, as we have seen with Picasso. Also, it appears that there is an unwritten law connecting reality with depictions.



FIG. 9. PICASSO DRESSED AS STRAVINSKY IN THE EARLY 1920'S. AUTHOR'S DRAWING, AUGUST 2012

Getting back to Einstein's example of abstraction, if we deliver to a cloak room clerk a rightful depiction of our coat he will also find it. The laws of rightful depiction are more complicated than the laws of symbolization through numbers but it doesn't mean that they do not exist. If we deliver to the clerk a handkerchief to find the correspondent coat we would establish a relationship between reality and reality (soup and main course) with no abstraction in the process (besides the fact that the clerk will never find the coat). So a depiction of something is of the same order of a number standing for something. So regardless of secession of "figurative" and "abstract" made in the history of Art, figuration is also a form of abstraction.

Like in Physics, it looks like, that, in Drawing, a lot of hours of work is required, to devise an individual, system of "calculation" able to translate the normal visual experience into two dimensional notations, acceptable as look-alike representations of the sensible world.

In order to explain this fact, let's go back to Einstein. In 1933 he wrote:

"We revere Ancient Greece as the cradle of western science. There, for the first time, the world witnessed the miracle of a logical system that moves forward step by step with such precision that each one of its prepositions is totally certain. I'm referring to the Euclidean Geometry. This admirable triumph of reason gave to the human intellect the necessary self-confidence for its forthcoming achievements. If

you weren't thrilled by Euclid in your teens, then you were not born to be a scientist". (Einstein 2005 [1933]: 94)

For Einstein, in this speech at the University of Oxford, Euclidean Geometry was the first step to explain that theoretical physics is axiomatic and consequently mostly mentally constructed rather than based in empirical observations. For him, Theoretical Physics belonged to the realm of imagination, where scientists strived for more elegant mathematical constructions finding new entities and new physical relations.

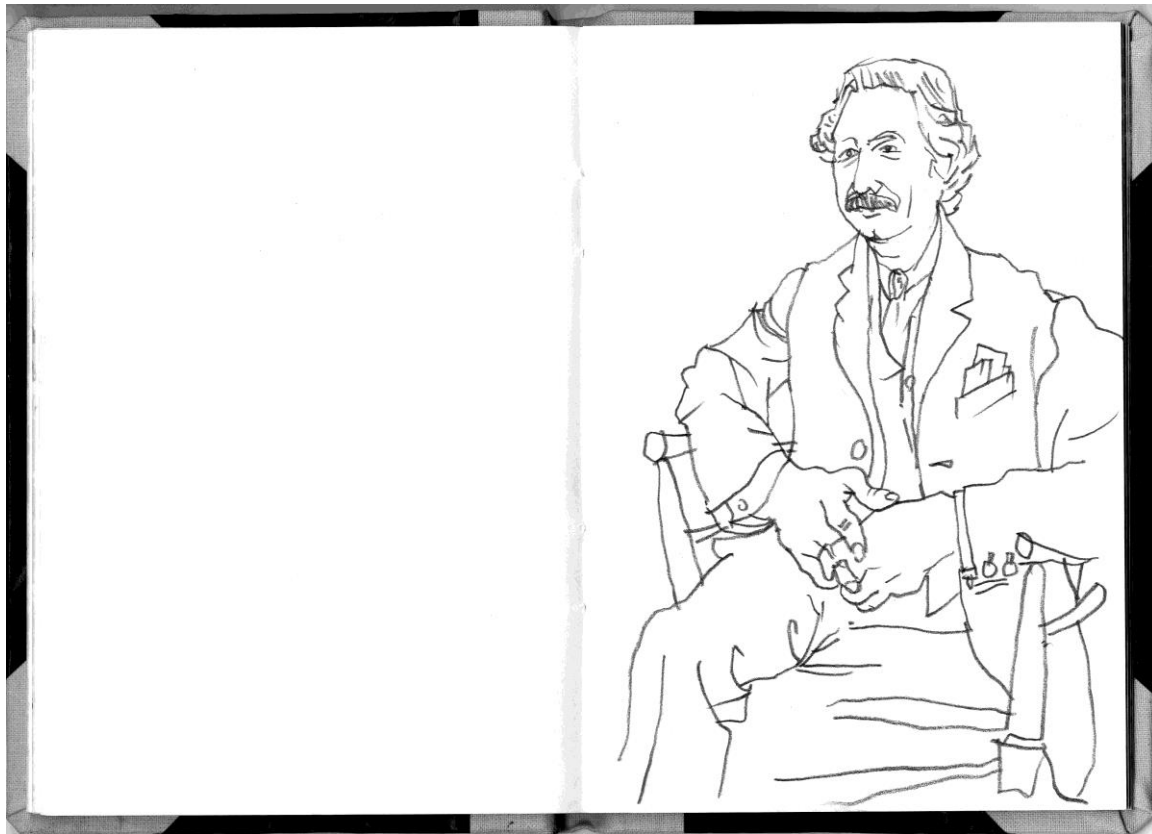


FIG. 10. EINSTEIN ALSO DRESSED AS STRAVINSKY IN THE EARLY 1920'S. AUTHOR'S DRAWING, AUGUST 2012

Euclidean Geometry was the abstraction both able to describe human constructions as well as anticipate them in a controlled manner. We navigate, see and observe in a world drawn by Euclideanism.

Whereas Euclidean Geometry, in its logical structure, anticipated modern theoretical Physics, in its application, constructed our sensible constructed world.

Furthermore we can sense the same kind of logic linking Chinese Landscape drawings and the philosophical processes of knowing related with introspection and meditation. In the same way as in Piero della Francesca's paintings, we sense "a logical system that moves forward step by step with such precision that each one of its prepositions is totally certain"

in oriental observational drawing. But these are speculations. For those that learned perspective through Alberti's apparatus based on Euclidean principles we must resume to what is inherent to our culture.

Lines between Experience and Abstraction

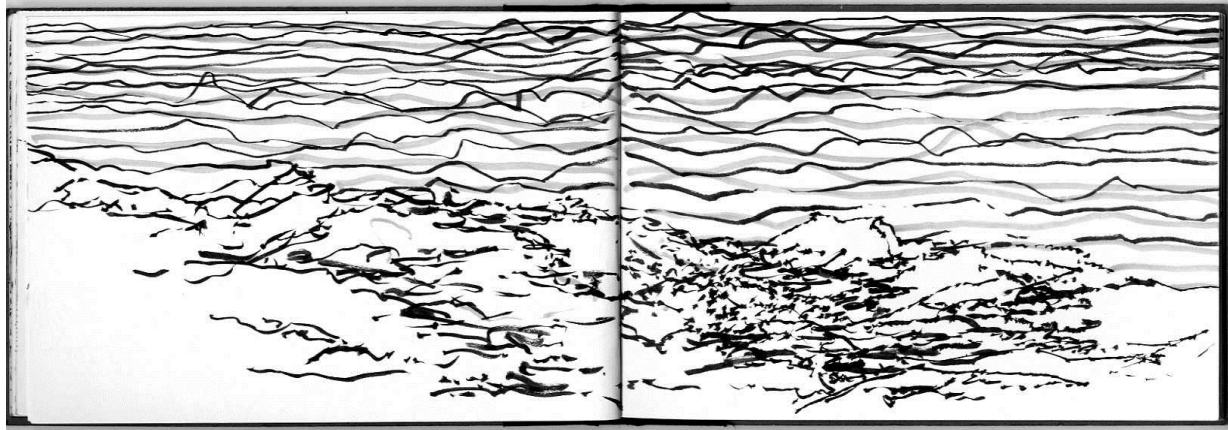


FIG.11. TRAIN DRAWING. AUTHOR'S DRAWING USING TRAIN MOVEMENTS. OPORTO – LISBON TRAIN, JULY 2012

Recently, Tim Ingold (2007) placed drawing inside the vaster realm of Linearity. On the chapter “How did the Line Become Straight” (Ingold 2007: 152-170) he gives us an account of such Euclidean endeavour put to action. Before, in the book, regarding the relation of drawing with writing the author explores the atavist notion that Drawing is “natural” and writing is “artificial” as the result of an abyss in time of thousands of years that separates the first drawings from the first writing. Then he notes:

“But drawing is not natural. It is not a trait or capacity that is somehow installed in all human individuals in advance of their entry into the world. Nor is writing a capacity subsequently ‘added on’ to a body pre-programmed to draw. Learning to write is a matter not of interiorizing a technology but of acquiring a skill. Precisely the same is true of learning to draw. Indeed writing is itself a modality of drawing; the two processes of enskilment are strictly inseparable.” (Ingold 2007: 147)

These enskilments are inseparable as forms of linearity but also as forms of abstraction that exist in its own set of rules conducting to and ideal complete transference of meaning. However, the process of ‘artificial’ abstraction seems to be even deeper. Verticality and Horizontality as well as parallelism are subdued but present in learning how to write and draw. The horizontal alignment of words and the parallelism of horizontal lines in a vertical development rule the world of writing as horizontal and vertical limits rule the world of drawing in a similar way. These invisible grids, although similar are used in different ways in drawing and writing.

An exercise that I always propose to the students in the first day of observation drawing course is represented in fig. 12.

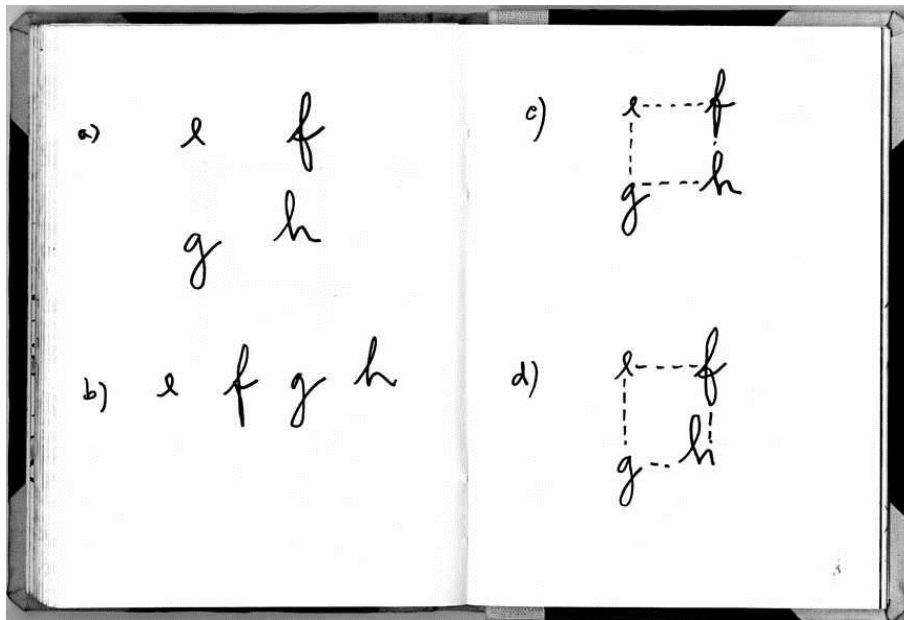


FIGURE 12 OBSERVATION DRAWING EXERCISE (AUTHOR'S DRAWING)

I draw on the board four letters e, f, g, h organized as in a) and I ask the students to copy them. Almost 99% of the students copy the letters in a horizontal sequence as shown in b). Some, very rarely, copy the hidden “square” as in c). To these, although praising them for their cunning instinct for observation drawing, I stress the fact that the original square was not perfectly aligned between f and h, as shown in d).

The students “know” the graphic signs as letters being part of a long memorized sequence of the alphabet so they react in writing mode. The “moral” of the story is that, as drawings, the letters mean nothing as letters. Both writing and drawing are developed abstractly but within different sets of laws. The process of observation drawing must be developed removing any meaning from reality so that an abstract image may be formed between reality and the drawing. Only then the drawing is able to be executed by copying the abstract image.

Every drawing handbook will ask us to see in a different way from the usual one in order to abstractly produce images to be understood as “realistic”. At least since Ruskin’s “The Elements of Drawing” in 1857 to the recent John Torreano’s (2007) “Drawing by Seeing, Using Gestalt Perception” or Sarah Simblet’s (2005) “The Drawing Book” not to mention Betty Edwards’ (1982) “Drawing on the Right Side of the Brain”, there were published exhortations to pay attention to abstract elements or to use abstract strategies while drawing.

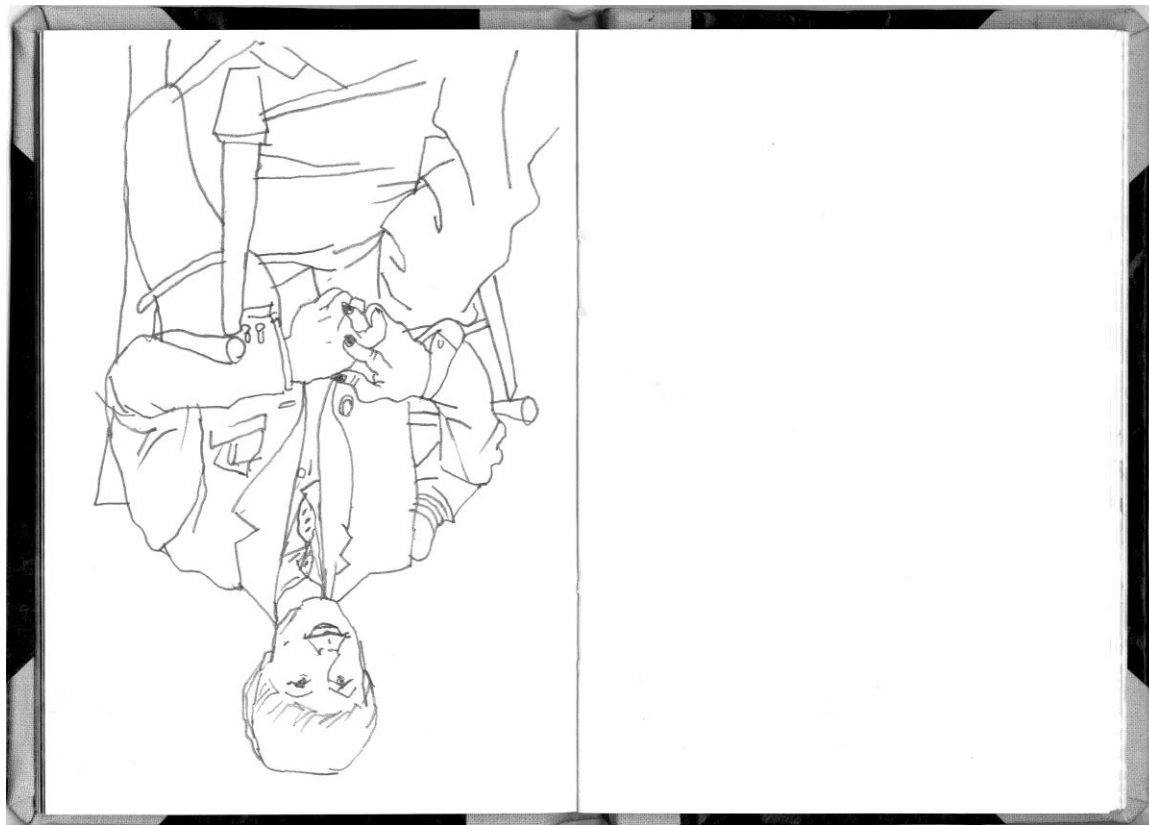


FIG.12. BETTY EDWARDS ALSO DRESSED AS STRAVINSKY IN THE EARLY 1970'S. AUTHOR'S DRAWING, AUGUST 2012

So when we draw from observation we know that the best procedures demand that every element must be drawn abstractly and seen abstractly in reality. That's the way we produce an image to depict.

So let me now summarize two ideas related with knowing in drawing:

- In a drawing anything looks like something.
- While drawing, everything looks (or should look) like nothing.

What we must stress is that even if there are physiological or neural reasons for these two ideas they are not imaginable without a cultural setting. We can even risk stating that much of our culture relies on the first. Let's go back to Einstein, Euclid and Picasso.

Euclid promoted a description of space as an entity where other entities could happen endlessly. From non-existing entities such as three points he invented a plausible universe made of lines, surfaces and consequently volumes. Its practical applications spanned to our days enhanced by Alberti, Descartes and Gaspard Monge. Although we know that space is really what Einstein described by mathematical formulas, our experiential space is closer to Euclid. For instance, we need special conditions and powerful instruments to see light being bent and measure it. In fact, most of our experience depends on light that moves straight. However, Picasso bent it...

SO WHAT DO I KNOW? (DO I KNOW WHAT DRAWINGS ARE, AT LEAST?)

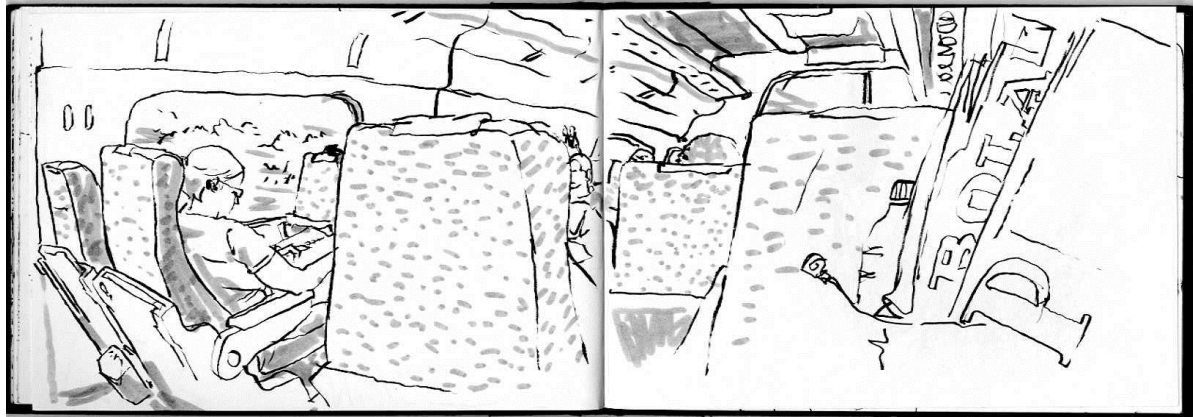


FIG.13. TRAIN DRAWING. AUTHOR'S DRAWING CONTROLLING TRAIN MOVEMENTS. TRAIN BETWEEN OPORTO AND LISBON, JULY 2012

Contemporary art practice enlarged the territory of drawing immensely by using the inquisitive nature of art about boundaries of definitions. As we can see for instance in MoMa's exhibitions and books "Drawing from the Modern" by Jordan Kantor (2005), in Tracey's "Drawing Now, Between the Lines of Contemporary Art" (2009), and especially in the project run by Teresa Carneiro (2008) in Lisbon, Drawing Spaces, a constant testing of limits inherent to art continuously expands the territory of drawing. These objects, always in the fringe of what we call drawing, possess what I call "at least one validating condition". These works of art, although not essentially drawings had at least one validating condition common to the so called normal drawings. To this endeavor (searching for strange objects and practices in the limits of drawing) we can call "drawing research" because it expands drawing's territory creating new fields or even new facts as drawing. This gave and is still giving authority to drawing inside the university as well as in general art theory. In these settings we can ask what could be the place for the discipline of observational drawing and what its research importance would be.

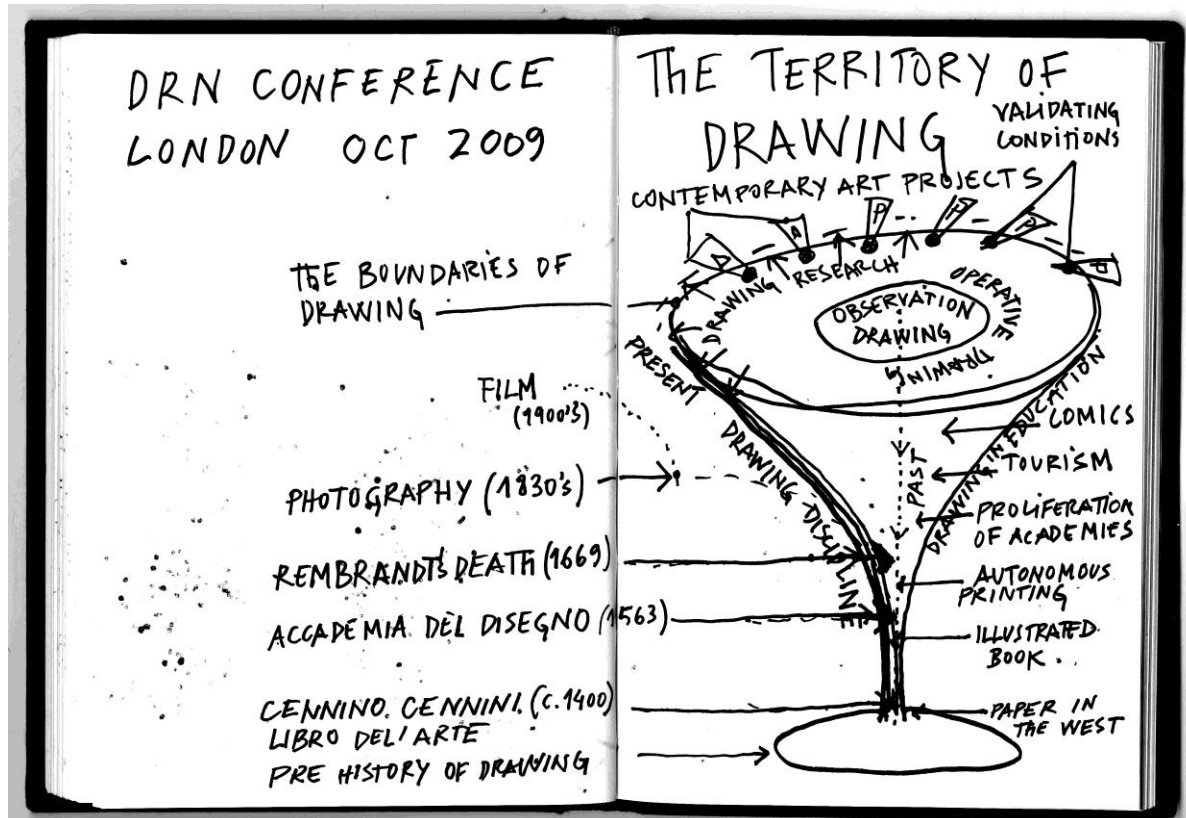
For now, let me postulate that observational drawing is in the centre of drawing research territory. Accepting this, our resulting question may therefore be "Why?"

There are, of course, historical reasons: the praise of Italian Art, the divinization of Leonardo and Michelangelo related to epidemic of Academies' throughout the western world, not forgetting a general dissemination of printed media.

Engraving and printing gave Drawing the possibility of immensely widening its influence in the representational paradigm of intellectual perceiving of images constituting the basis for modern western visual culture. No wonder that Niépce would open a bottle of champagne after obtaining a blur (with no colour) greyish image of his window. The evidence of so many pre photography devices such as the camera Obscura or the camera lucida can only suggest that Niépce's joy by obtaining a drawing made by light (a photo-graphy) was

resulting from the continuing desire to register graphically the observable as described by Martin Kemp (1990: 167-219). But these drawings made by the light had gone far and created a new realm to be developed. The absence of gesture and stenography placed photography outside the territory of drawing. Nevertheless the fact is that both shared a representational nature and the power to depict.

The development of artificial imagery was fuelled by drawing that may be represented if we do historical research about it using a martini glass model presented first in the Drawing Research Network conference in 2009.



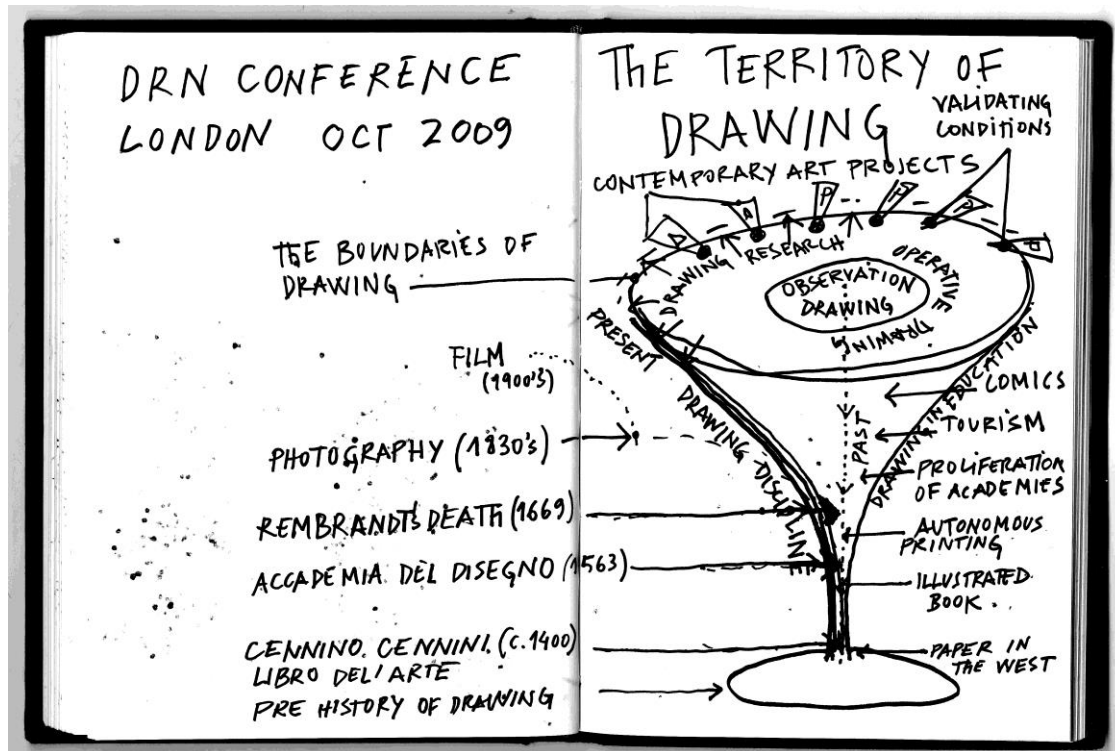


FIG. 14. MARTINI GLASS DRAWING RESEARCH MODEL, AUTHOR'S SKETCH, LONDON OCTOBER 2009

Yet my interest lay upon defining a core for observational drawing. It seemed that I could define a type of drawing more refined as drawing: A purposeless drawing.

A drawing so drawing that could be absent of producing knowledge. The drawings I constantly do and publish aim to achieve this neutrality. This would put immediately my drawing strategy out of the territory that I have defined as the place of drawing research. I must call here Steve Garner when he very wisely wrote:

"It seems the distinction between research and practice is healthily blurred. In developing the knowledge base of drawing research we need to draw on writings; there's a lot of valuable reflection out there in books and journals that form a very suitable foundation. We also need to write on drawings; we need to make a contribution to this knowledge base through articulating our work, studies and opinions." (Garner 2008: 25)

For any observer, my drawings are drawings with no doubt (Figs. 1, 5, 13, 15). Writing about what goes on when doing it seems to be inside "work, studies and opinion". Other disciplines have produced similar self-observations, if you recall Einstein's response to Hadamard.

Whilst the insidious idea that what I have been doing is mathematical, find its way inside my mind, I will still continue to move as a flaneur inside a relativity theory that states we can relatively obtain not only joy as the essence of drawing as Clive Dilnot (2009: 38) affirmed in "The Smooth Guide to Travel Drawing", but also absolute drawings.

So in conclusion what do we know when doing observational drawing?

We know how to set an observation device.

We know how isolate what to be observed.

We know to use time and concentrate

We know about geometry of vision.

We know how to make a cultural translation through a visual stenography.

We know to use gesture.

We know that anything in a drawing will look like something.

We know that the process of drawing is abstract and has its laws.

And finally

When we are doing an observational drawing, at least we know that we are drawing.

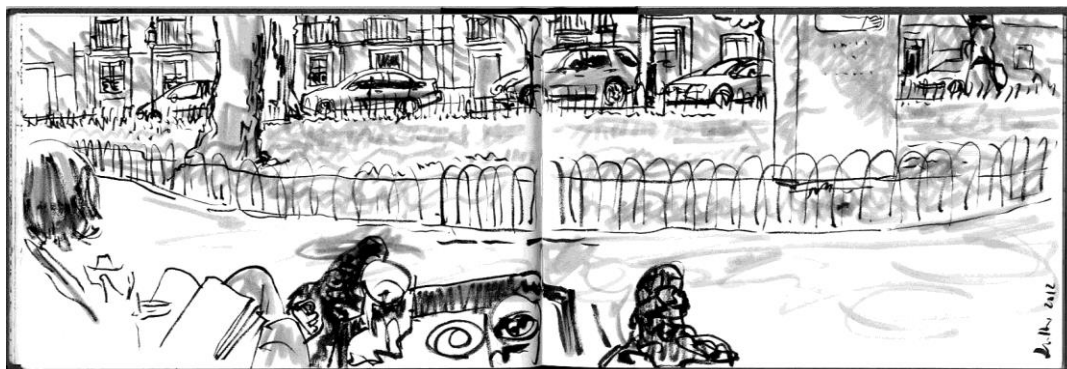


FIG. 15. LEMONADE AT JARDIM DAS AMOREIRAS. AUTHOR'S SKETCH, LISBON JULY 2012

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