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PHENOMENON, PERCEPTION AND ARCHITECTURE: EXPERIENCES THROUGH FREEHAND DRAWING

FENÔMENO, PERCEPÇÃO E ARQUITETURA: EXPERIÊNCIAS POR MEIO DO DESENHO A MÃO LIVRE

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Abstract: This article proposes a discussion about drawing as a unique perceptual condition of access to the world. The aim is to provide a theoretical basis for the perception and relationship between space, perceptual act and drawing, and later, to exemplify it in a practical activity carried out with first-year students of the undergraduate course in Architecture and Urbanism of the Institute of Architecture and Urbanism of the University of São Paulo (IAU.USP). This activity took place in two workshops held in 2019 and was based on a methodological strategy called Drawing Modes, which is justified by the interaction between the graphic representation and the object represented. The realization of drawings led the students to participate in an experience of structured language that allowed them to review their own relationship with the world.

Keywords: observation drawing, graphic representation, perception, perceptive act, phenomenology.

Resumo: O artigo propõe uma discussão sobre o desenho como condição perceptiva singular de acesso ao mundo. Busca-se trazer um embasamento teórico quanto à percepção e à relação entre espaço, ato perceptivo e desenho, para, posteriormente, exemplificá-lo em uma atividade prática feita com alunos do primeiro ano do curso de graduação em Arquitetura e Urbanismo do Instituto de Arquitetura e Urbanismo da Universidade de São Paulo (IAU.USP). Esta atividade aconteceu em dois workshops realizados em 2019 e se baseou em uma estratégia metodológica chamada Modos do Desenho, que se justifica pela interação entre a representação gráfica e o objeto representado. A realização de desenhos conduziu os alunos a participarem de uma experiência de linguagem estruturada que permitiu reverem a própria relação com o mundo.

Palavras-chave: desenho de observação, representação gráfica, percepção, ato perceptivo, fenomenologia.

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1 Introduction

Depending on the general lines of the discussion between the different approaches of Phenomenology, the individual keeps in his body the memories of his experiences, of the different places he has been through, since he is an incarnated subject, a being-in-the-world: these memories were his existence, since the whole body is memory and perception. Individuals in the same movement that make up their existence are building their world: a being who gives himself to the world, who belongs to the world; at the same time, he carries it in his body. Maurice Merleau-Ponty (1908-1961) expanded the sense of language, the act of giving meaning to the world and to oneself in phenomenology by discussing other forms of meaning, such as graphic expression. Drawing is the perceptive act par excellence.

In this context, this article proposes a discussion on drawing as a unique perceptual condition of access to the world, which promotes its (re)knowledge by bringing awareness of one's own body in the world (and of the world in the body), creating a “memory of hands” – the body is multisensory, the entity of perception, the main human spatial reference (MERLEAU-PONTY, 1945/2006). Drawing is a well-known practice in the field of graphic representation in Architecture and Urbanism, but this work places it under a merleau-pontyan phenomenological bias, with interest related to freehand observation drawing. It seeks to bring a theoretical basis as to the perception and the relationship between space, perceptive act and drawing, to later exemplify it in a practical activity carried out with students of the first year of the undergraduate course in Architecture and Urbanism at the Institute of Architecture and Urbanism at the University of São Paulo (IAU.USP), São Carlos, an activity that took place in two drawing workshops held throughout 2019.

The two workshops developed at IAU.USP were based on a methodological strategy called Drawing Modes, applied in the discipline of Drawing 1 at the Faculty of Architecture of the University of Porto, Portugal (FAUP). It is worth noting that the field of representation in the teaching of FAUP and IAU.USP has different approaches: while the first defends a more traditional drawing – through types, rules and execution techniques – in the second directs investigative drawing, a tool for denaturalization and construction of a new look. However, in both approaches the interaction between the graphic representation and the represented object has consequences in the act of perceiving the space and, consequently, in the act of drawing, improving the perceptive capacity.

Various forms of representation through the different types of drawing and their respective executions guide the teaching of Drawing at the Faculty of Architecture of the University of Porto, FAUP, Portugal. These ways of representing are called Drawing Modes. Teaching is associated with the importance of drawing in its constitution and the presence of this tool as the understanding of relationships that move the project universe of Architecture throughout the course. The disciplines of Drawing 1 and Drawing 2, offered in the first year (8 hours per week) and second year (3 hours per week), respectively, constitute the training moments that underlie further actions involving drawing, for example, the discipline History of Portuguese Architecture, which has the graphic diary as an important learning tool.

The discipline Drawing 1 prioritizes developing in students the skills related to perception and observation through graphic representation of the drawing and, for this, theoretical and practical classes structure the program. Theoretical classes open each stage of the course, which is three. Theoretical classes present the specifics of each stage, the content to be put into practice and examples, the methods, the themes.

The Drawing 1 discipline is divided into three parts. According to information on FAUP's Drawing 1 blog (BARBOSA, 2007), the first phase, Perception and Recognition, as the name already shows, is intended for the student's first contact with issues involving perception and observation. At this moment, the exercises focus on familiarizing the act of seeing and the characteristics of vision, and more, the universe of drawing, methods and procedures. The discipline presents representation techniques, considering notions such as structure, measurement and proportion of shapes. The theme of this phase covers representation of people, objects, interior and exterior space.

The second phase of the course, Recognition and Expression, is the time to systematize experience, knowledge and work processes. The exploration of materialities addresses the problems of perception and representation of the real world, relating them to the expression of reality. In this stage, the difficulties increase, the degree of complexity of the shapes to be drawn increases. The themes remain human body, objects, internal spaces and urban landscape, however, when adding new procedures, it is necessary that the content learned in the previous phase is internalized. It should be noted that the exercises in this phase already follow the Drawing Modes: sketch, study, contour drawing and detail drawing, which will be shown below.

The third and final phase, Expression and Consideration, has the students' autonomy regarding productive capacities. Each student has already acquired knowledge and practice regarding both the act of seeing and the act of drawing, creating their graphic identity. The Drawing Modes continue and so do the themes, increasingly complex, especially when applying light and shadow either with graphite or color. At this point, students establish close relationships with real life much more easily.

The discipline of drawing given to the second year, Drawing 2, according to information on FAUP's Drawing Blog 2 (BARBOSA, 2007), includes representations more focused on the architectural environment, that is, on space, whether internal or external, since the interest of this course is to establish closer relations between drawing and project, between drawing and projecting. The Drawing 2 program follows the same structure as Drawing 1, where in each mode phase practical classes follow theoretical classes. Four phases delimit the discipline: the first three phases are for the production, analysis and study of the relationships between drawing and project. It counts with the deepening of the elaborations of representations of the real, of architectural objects and landscape, as well as the creation of non-real images, that is, of the Architecture conception. The fourth phase focuses on the composition and communication processes of a project through drawing.

Drawing Modes is the name given to the methodological strategy of the discipline of Drawing 1, lectured at the first year of the Architecture major at the Faculty of Architecture of the University of Porto. Professor Joaquim Pinto Vieira conceived and perfected it at FAUP, between 1975 and 2009 and, later, between 1997 and 2006, it was adopted by the Architecture course at the University of Minho. The discipline of Drawing based on the Drawing Modes comprises the practice of observation drawing, also called natural, and has a close connection with project practice in the context of Architecture (PAIS, 2016).

In order to teach how to represent the real, the teachers responsible for the discipline of Drawing 1 at FAUP offer students tools for them to develop both observation and expression skills. The discipline has four general themes that are developed throughout the course, as mentioned above: objects, human body, internal and external space, and has a structure based on the four Drawing Modes: sketch, study, contour drawing and detail drawing. As Pais (2016) affirms, the modes “[...] can also be designated by the verbs that correspond to the attitude inherent to each one, respectively: sensitize, explore, contain and understand” (PAIS, 2016, p. 24, our

translation). It should be noted that the main difference between them lies in the duration, the type of material and the execution based on the graphic expression, consisting of a line or a stain.

a. “Sketch” is a quick drawing, executed in small size, usually several drawings are made on the same sheet, with the intention of being able to represent the observed object from different angles. Considered a more intuitive drawing, the sketch, more than paying attention to compliance with rules, it is relating to perception. “The verb associated with it is 'to sensitize', which means 'to make sensitive, to touch the sensitivity of, to move'. It is, therefore, a way of representing that is closely linked to what the drawer 'feels'” (PAIS, 2016, p. 25, our translation).

b. “The Study” is an investigation drawing, which allows attempts and corrections. With a longer duration than the sketch, the study can be executed in larger scales. In addition, it is a drawing attentive to light/shadow and color. More than working with lines, one works with stain. Also without much rigor to the details, in the study it is necessary to know how to select the information, leaving for the perception the exchange between observer and observed.

c. “Contour Drawing” is a line drawing, more time-consuming and controlled, in which the line is rigorous and continuous. The pen is hardly removed from the paper. There are no attempts and corrections on paper, everything happens in the look. What is put on paper is already the right line, so it is necessary to pay attention to the moment of observation. “They can be designated by the verb 'contain', which denotes 'close, possess, include', expressions that refer the way to procedures in 'parole'” (PAIS, 2016, p. 29, our translation).

d. “Detail Drawing”, in turn, lasts even longer. It is a rigid drawing, which follows the rule of representation faithful to reality as much as possible. For this, a great effort is needed to execute light and shadow. In this drawing there is no choice as to which information to put, all information is important.

The division by phases and the different Drawing Modes in the Drawing 1 discipline imply a wide range of knowledge and dexterity on the part of the student, which makes it possible to draw in a different way, to acquire solutions for the various types of problems, always taking into account that the main role of drawing learning is to understand it as a tool for the project process, a method of investigation and reasoning: the hand and the line accompany and record the thought.

2 The body in space

2.1 Ontogenesis and the perception of space

As for the act of perceiving, a fundamental question arises: when does the perception of space and movement occur? According to Kellman in Epstein; Rogers (1995), researches carried out since the 1960s significantly restructured ideas about the origins of the perception of space and movement, although there are many issues to be discussed. In order to answer the question posed above, the author investigates the origin of the perception of individuals since they are babies, still at a young age, synthesizing studies on the abilities of the visual system, on the relationships between sensory capacities and the perception of space, seen as a first frontier in the development of human cognition and perception. Other questions arise: which perceptual competences are innate to the human being? How do the others arise and what are they?

The ontogenesis of space and perception of movement, that is, the origin of being in space and the detection of movements, relates to the abilities of perceptual systems, and vision would be the first guide to conduct individuals in space, their movements and activities; in a second moment, this connects to the vestibular, auditory systems, among others. However, it is emphasized that the perception is multisensory. These systems interpret clues, respond to environmental stimuli that associate with sensory organs in the human body. Throughout life, these perceptive systems improve to better inform the visual system about the physical world, which is called an ecological perspective. Precisely because he is multisensory, a blind person, for example, can perceive space, even with his visual limitations.

The experiments carried out by Creem Regehr et al. (2005) verified this: the experiments dealt with the influence of restricted vision conditions on the perception of egocentric distances (egocentric distance is the direct measure between an observer and an object, different from exocentric vision, in which an individual estimates the distance between two objects or parts of the same object). Through tests of three types with humans – restriction of the field of vision by 1.5m (using a circular collar), restriction of the angle of vision (by means of a mask) and restriction by means of an eye patch – the authors concluded that impaired vision did not interfere with the perception of space: walking without sight or with impaired vision remained accurate at all distances tested, even though it was not possible to see one's feet or the ground.

Such conclusions are fundamental to reinforce the human body multisensory dimension.

But, to resume, when do these perceptive capacities arise? Kellman in Epstein; Rogers (1995) indicates that, from a young age, perceptive capacities have been shown to exist: 1- or 2-month-old babies already respond to environmental stimuli with head retraction, arm elevation and blinking, for example; they also recognize the limits of spaces (from changes in patterns and textures, through additions and exclusions). Still at this point, pictorial responses are noticed from 7 months of age, precisely because they are associated with crawling (traversing space).

As Kellman, in Epstein and Rogers (1995), pointed out, movement is the raison d'être of perception, it attracts attention. Lack of movement makes individuals less able to correct their perceptive errors; therein lies the importance of patterns and repetitions, associated with movements, because what is repeated is better fixed in the perceptive case. Other factors can improve the perceptive capacity, such as the use, as babies, of the perception of aspects of the three-dimensional layout of space to determine other attributes, such as shape, size – they are as references. Stereoscopic capabilities, that is, those in which the brain integrates what is seen (a fusion that produces depth from the parallax of the right and left eyes), appear in the first months of life (2 to 3 months of age); from 3 to 4 months of age, accommodation/convergence would be close to that of an adult.

Kellman, in Granrud (1993), and Mandler (1988) indicate that the function of perception even when individuals are small is associated with cognitive development, with learning the physical and social worlds: babies build their reality from the sensory stimuli that come from it, more than they learn about it. This view of an altered perceptive “starting point” appears in reports by leading scholars in the field, such as Fodor (1983); Mandler (1988); Spelke et al. (1992). In addition, babies do not perceive in a disorganized and less significant way (traditional empiricist view), only their repertoire is smaller.

Still in this context, a new question sounds necessary: what about the perceived information? The perception, understood as an immediate information, is later stored by the spatial perception, which improves with time – babies perceive, therefore, but in conditions of less improvement. The cognitive structures of the human body make maps and spatial representations, but they are not enough, thus creating mental images.

Spatial parameters trigger reactions that neurons pick up, responding precisely to this environmental stimulus. Neurons in the primary visual cortex respond to stimuli in the visual field; neurons in the primary somatosensory cortex respond to tactile stimuli, e.g. (HARTLEY et al., 2014). The authors point out that it is possible to reconstruct the location of an animal based on cell signaling, precisely because of the high performance discovered in these hippocampal formation cells. The interpretation of signaling patterns restores recent activities and consolidates spatial learning and memory; they also point out that there are still many studies needed in this field of research, with comprehensive perspectives and new forms of interactions between cells, providing a basis for a promising neural code, involving variables such as location, direction and speed.

Architecture and Urbanism projects provide the spaces experienced, in their majority, a fact that characterizes the project as a key element in the idea of spatial memory, since they have the ability to interfere in the experiences of individuals when going through the works or cities – in a positive or negative sense. “Recent researches carried out by neuroscientists at Harvard University shows that imagined images are formed in the same areas of the brain as visual perceptions, and that the former are as real as the latter” (PALLASMAA, 2017, p. 62).

The relationship between the subject and the world, in this sense, goes beyond the simple observation of objective dimensions and enters a field where the imagined and the experienced affect each other. The repertoire that informs the experience of being in the world can consist of both memories of previous objective experiences and imagined images generated through meaningful and affective inferences. The world comes to be seen in comparison to my private world, and this one is modified by the perceptual experience of the first.

2.2 Perception and language

Based on phenomenological foundations consolidated by Edmund Husserl (1859-1938) and Martin Heidegger (1889-1976), German philosophers who broke with positivism, Maurice Merleau-Ponty (1908-1961), French philosopher, inserts the human body into Phenomenology (which was still predominantly philosophical in character), establishing the basis for knowledge related to human perception and behavior in space. In the midst of this, he defines: “[...] it is through my body that I understand the other, just as it is through my body that I perceive 'things'” (MERLEAU-PONTY, 1945/2006, p. 13). His importance is clear because it inserts and discusses

philosophically not only the individual and his relations with himself, but the individual in his relationship with the other. Thus, he writes the canon “Phenomenology of perception”, a book launched in 1945.

Merleau-Ponty's studies took on a great dimension in a period in which perception was still considered a very precarious auxiliary to knowledge, something that could depreciate its understanding – it is emphasized that the relationship between philosophy and perception has always existed, which changed throughout history was the way in which the contribution of perception to knowledge was considered. Western society, historically, maintained the idea that perception should be corrected by reason, which was not a scientific element – Science would be done with devices, measurements and technical data, the truth would be the result of a thought. In a broad way, Phenomenology is understood as the study of phenomena, that is, the attitude of describing, instead of analyzing or explaining something, reporting the experience as it is. Phenomenology associates subject and object, subjectivity and objectivity, arguing that even the scientific side comes from knowledge based on the experience of the world.

Merleau-Ponty breaks the separation between body and mind, since the body would be the instrument by which the individual expresses himself, manifests himself in the world. The body is also the means by which the world is accessed, inhabiting it; he rejects the Cartesian idea of a thinking individual (res cogitans) separated from reality, matter external to him (res extensa), since the body is the “being-in-the-world,” an incarnated subject, not just a receptacle of perception – the Merleau-Ponty's being-in-the-world recalls Heidegger's concept of Dasein, which emphasizes historicity, someone's finite individual existence, as the defining characteristic of “being in the world” (STEINER; STERNBERG, 2015).

In the book “Phenomenology of perception” (1945), he explores the individual's experience in the world and what is behind it. When you are in a world, still without preconceived ideas, what touches the individual is his perception of objects or the thought already elaborated of them? The conclusion reached is that perception is the first contact of the being with the world; even so, one escapes it trying to redo it in a rational way (the so-called correction by reason). This original contact with the world is given a philosophical status through Merleau-Ponty. This happens through the study of essences, the return to things, the return to a world previous to common sense: the phenomenology of perception restores the essences in existence, according to: “To seek the essence of the world is not to seek what it is in idea, once we have reduced it

to a theme of discourse, it is to seek what it really is to us before any thematization" (MERLEAU-PONTY, 1945/2006, p. 13).

Before a reflective process that theorizes and categorizes what is perceived, the philosopher proposes to seek an understanding of the subject-object, subject-world relationship, leaving aside the epistemological constructions that control the intellect and inhibit true perception; thus, it allows us to return to things as they are through the intentionality of consciousness, that is, the observation of a phenomenon through attention and judgment, since the subject observes every object from some intention – consciousness makes the phenomena appear through attention. Feeling is a vital form of communication with the world, making it familiar to human beings.

In his posthumous book "The visible and the invisible" (1964), Merleau-Ponty develops the concept of the flesh, in which he deepens two fundamental relationships: the relationship of the body with the world and the body with itself; of what perceives with what is perceived – perception mediates the relationship with the other in Merleau-Ponty. Through the primacy of perception, the author establishes that the world starts to have meaning from perception, from a being that gives itself to perception, a perceptive being, returning to the importance of the subjectivity of the world. Thus, he gives a philosophical status to the body, giving, at the same time, one body to the other individual; a being that speaks of the world, but is also in the world. Through the intentionality of perception, it establishes a relationship between a consciousness and an object, perceived through attention and judgment – the individual does not have a body, he is a body; through the intentionality of perception, the immanent sense of form is extracted, that is, the appearance as it happens, without rationalizations, from the understanding of what is known as noema:

NOESE – MORPHÉ – HYLE

consciousness sheds light on a form and extracts a set of data from it

The object and its hyle (data set) form a noema, which has a peripheral layer (extracted by the perception of the immanent sense) and a nucleus. The object will always remain the same (nucleus), but the noemic characters allow different ways of perceiving it. Each individual perceives in his own way from the environmental stimuli he receives. The same object can certainly be perceived in different ways by different people; whereas identical objects can also be perceived in different ways by different people. Regardless of how perception occurs and what stimuli it responds to in each

individual, how its cells are stimulated, perception will always be a figure-ground relationship: when one part is illuminated by perception, the others are extinguished.

The body is always incarnated in the world (MERLEAU-PONTY, 1964/2009), it is a flesh of being and, at the same time, a flesh of the world; a relationship that is in itself, but also in the other, which would be its concept of chiasma – "[...] is that the look itself is the embodiment of the seer in the visible" (MERLEAU-PONTY, 1964/2009, p. 128). As he is incarnated in the world, he recovers, with the extraction of the immanent sense, his individual and collective imaginations and memories, forming an image: "[...] all visible is molded in the sensitive, every tactile being is somehow turned to visibility thus, there is an overlap and crossing, not only between what is touched and who touches, but also between the tangible and the visible that is embedded in it" (MERLEAU-PONTY, 1964/2009, p. 131).

In the study of perception, Merleau-Ponty uses language as a phenomenological method. At this point a possible contradiction appears, but the philosopher himself clarifies it. How is it possible to arrive at the principle of phenomenology, the point of which is to return to the same things without having a previous concept, through an act done by the individual, that is, who already intrinsically has a look at the phenomena and, in a way, distances from the immediate? It starts from the idea of just elucidating the meanings of preconceived themes. Moreover, Merleau-Ponty believes that language is not really a return to the immediate, but only as they appear, and says that the unreflecting only comes into existence through the subject's own reflection.

The act of drawing, in this sense, surpasses the learning of techniques and their execution; drawing can be seen as the act responsible for showing the process, which corresponds to the perceptive act and the relationship between those who observe and what is observed, between those who draw and what is drawn, between those who touch and what is touched. These two axes synthesize the experience of drawing, that is, they synthesize this relationship between the observer and the translated object in the form of graphic representation.

It starts here with the idea that drawing is an indispensable tool in the training of architects and urbanists, since by disinhibiting the line and increasing the student's dexterity, it allows him to create himself, his own drawing identity, through his body, in the same gesture that creates his world. Recovering Merleau-Ponty (1964/2009), the body is not only a means by which the world is seen, from a central perspective, but the being-in-the-world is a sensory and corporal being, it is flesh in the world and a world in the flesh.

3 The workshops at IAU.USP

Aiming to expand the relationship of undergraduate students with drawing, that is, to increase the perceptive contact with the world around them and, more, to increase the dexterity and the control of the hand and the look – project process, fundamental to Architecture – two observation drawing workshops were held with students from the first year of graduation at the Institute of Architecture and Urbanism of the University of São Paulo, in 2019. These Live Model Drawing Workshops were held each in a month: in May 2019 the Live Model Drawing Workshop 1 took place and in November 2019 the Live Model Drawing Workshop 2. The division was based on the Drawing Modes: the first workshop featured two of the Drawing Modes that IAU undergraduate students are already used to – sketches and studies – while the second condensed the contour and detail drawings, which are not part of the drawing teaching at that institution.

With the proposal of inserting a new type of drawing practice, the first workshop had an expository lesson on the Drawing Modes, covering their emergence, their characteristics and their application, specifically, at the Faculty of Architecture of the University of Porto (FAUP). Then, the practical part started, divided into different themes: fruits and vegetables, dressed bodies and half-naked bodies. As the title itself states, the workshop consisted of drawings of living models, however, as warm-up activities, less complex themes were proposed, so that students could progressively draw at different levels of difficulty, which promoted the contact with the observed object and the mutual relationship between them through perceptual experience.

Initially, students sketched on A4 size sheets, according to the sequence: blind, continuous line and observation drawings lasting 1, 3 and 4 minutes, respectively, as Figures 1, 2 and 3 depict. It is worth mentioning that the option to start with the blind drawing is due to its main characteristic, being a loose and fearless drawing, revealing the path of the gaze, sensitizing it. Blind drawings bear this name because, during execution, one does not look at the paper, the vision is fixed on the object being observed, so as not to look away for any moment. They are faster than normal drawings, since, in this case, no time is lost in the path between the object and the paper to be drawn. The continuous line drawing is a mixture between blind and observation drawings, while it is a drawing made by observation, the line follows the logic of not leaving the paper and, therefore, the eye tends to stay longer in the object than in the representation.

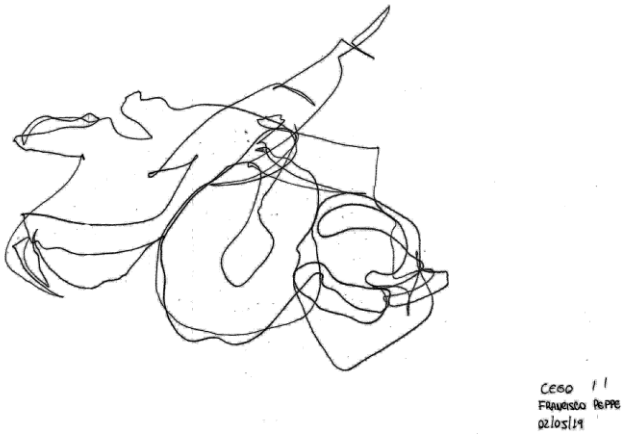

Figure 1 – Sketch, blind drawing, sequence of four fruits, A4 size, student Francisco Peppe. Source: the authors, 2019

Figure 2 – Sketch, continuous line drawing, sequence of four fruits, A4 size, student Francisco Peppe. Source: the authors, 2019

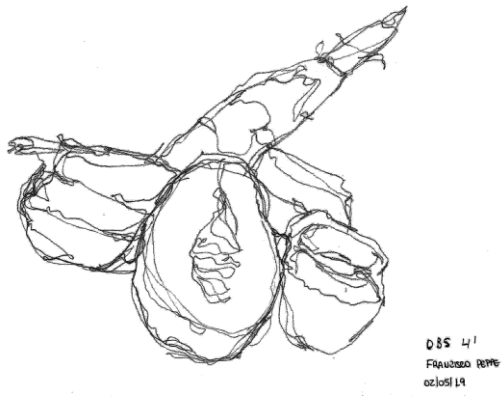

Figure 3 – Sketch, observation drawing, sequence of four fruits, size A4, student Francisco Peppe. Source: the authors, 2019

After going through the warm-up phase, the workshop introduced live models. Through sketches, students started to draw bodies dressed, standing or sitting, or in interaction with objects in different positions. Initially, the students sketched four drawings on an A4 size sheet and then, with a longer duration, unique drawings in A4, exemplified in Figures 4 and 5. Sketches are the drawings that IAU students are most used to. Among them, it is possible to notice an identity in the drawings, lines with peculiar characteristics, sometimes looser and sinuous, sometimes straighter and more precise, with more or less lines in the final composition.

Figure 4 – Sketch, observation drawing, live model, A4 size, student Alice Damianovic.
Source: the authors, 2019

Figure 5 – Sketch, observation drawing, live model, A4 size, student Carolina Carrozzo.
Source: the authors, 2019

It is interesting to note that the sketch, as it is a quick drawing, requires careful observation in order to appear in the form of representation. However, it is not a precise and rigorous drawing, the line ends up following the observation simultaneously, in a continuous interaction between looking and drawing and, thus, one line may come to complete and, in a way, correct another. As a second practice, this time with the study drawing mode, the workshop proposed another activity with fruits and vegetables, to familiarize the students with a new subject. They carried out quick drawings, lasting 30 seconds and in a reduced size, 6 drawings divided on an A4 sheet (Figure 6). Due to the complexity of drawing with stains and, above all, with colors, the activity prefers small drawings, whose execution is more controlled and faster. The interesting thing about these drawings is that they can represent light and shadow with more or less stains, more or less intensity in the line, and can represent the tone closer to the real one with the overlap of different colors.

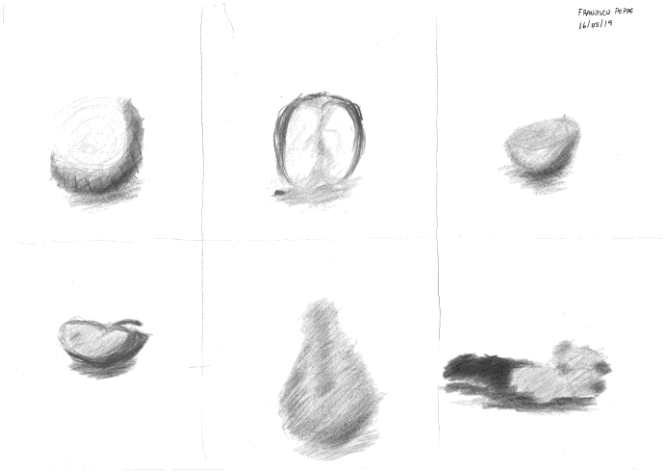

Figure 6 – Study, observation drawing, fruits and vegetables, A4 size, student Francisco Peppe. Source: the authors, 2019

Then, the sketches came to represent living models. At first, the same logic was followed to start with small drawings on a single A4 sheet (Figure 7), and then perform larger drawings (Figures 8 and 9). It is worth mentioning that the model assumes different positions, while the students sit in a circle, around the model, which makes it possible to draw the model from all angles.

The second workshop adopted the same program as the first, however, the expository lesson was shorter, since most of the participating students had already completed the first workshop. The practical lessons consisted of three themes: small objects, plants and dressed bodies. The exercise of small objects had the same role as the exercise of fruits and vegetables of the first workshop: it exercised the function of heating and adapting to a new drawing mode, in this case, contour and detail drawings.

It started with drawings on A4 sheets for the objects (Figure 10) and then moved on to larger drawings, in A3, of plants (Figure 11) and living models (Figures 12 and 13), more complex themes.

Figure 7 – Study, observation drawing, live model, A4 size, student Denise Yamaguchi.
Source: the authors, 2019

Figure 8 – Study, observation drawing, live model, A4 size, student Denise Yamaguchi.
Source: The authors, 2019

Contour drawing was the biggest challenge for IAU students. It is a way of drawing that they are not used to, an accurate line, that does not admit error and that needs to be rigorous and precise. It is necessary to be aware of what is being observed and not be afraid to draw the first risk on the paper. In addition to paying attention to what is ahead and what is behind so that the lines do not overlap.

Figure 9 – Study, observation drawing, live model, A4 size, student Denise Yamaguchi.
Source: the authors, 2019

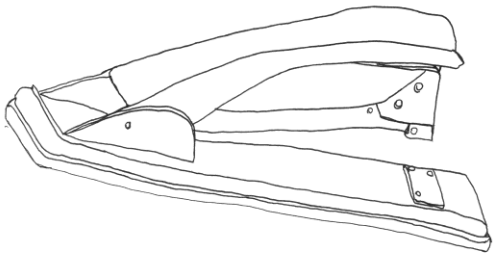

Figure 10 – Contour, observation drawing, object, A4 size, student Vitoria Nogueira.
Source: the authors, 2019

For the representation of living models' contour, there is an even greater difficulty, since getting the proportion of the human body “right away” is a task with a high degree of complexity. A task that requires, in addition to an intense integration between the observer and the observed, a control and an experience with the way of drawing. However, when drawing a living model in interaction with a chair, it is possible to use the proportion of the object to assist in the proportion of the human body, as shown in Figures 12 and 13.

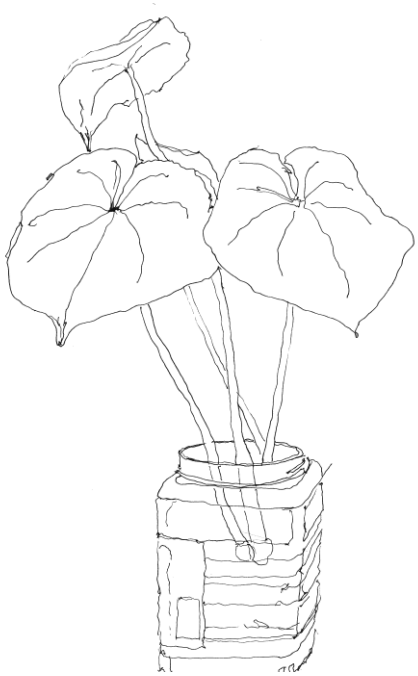

Figure 11 – Contour, observation drawing, plant, A3 size, student Francisco Peppe.
Source: the authors, 2019

Figure 12 – Contour, observation drawing, live model, A3 size, student Francisco Peppe.
Source: the authors, 2019

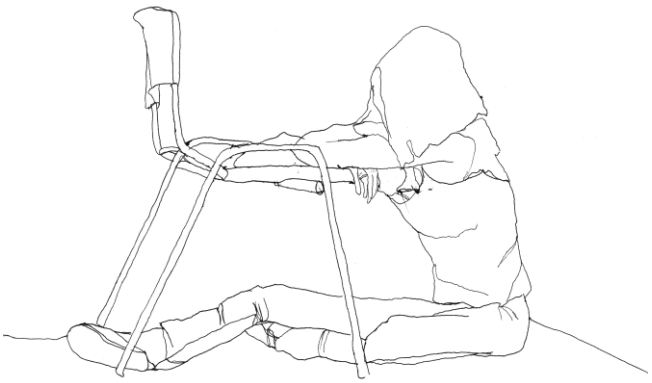

Figure 13 – Contour, observation drawing, live model, size A3, student Vitoria Nogueira. Source: the authors, 2019

The detail drawings were the last to be introduced in the workshop. Drawing with a certain degree of complexity, but that leaves room for more attempts, until in fact the action is as assertive as possible from the point of view of verisimilitude with the real. For this reason, it is a drawing that requires a lot of time and its execution gets to be exhaustive. Although not included in the daily practices of IAU.USP students, this type of representation is not so distant, since it follows the same precept as the studies. The first drawings were of small objects, as well as the contour mode (Figures 14 and 15). However, in this phase, the workshop went straight to the representation of living models, without going through the plant stage (Figure 16).

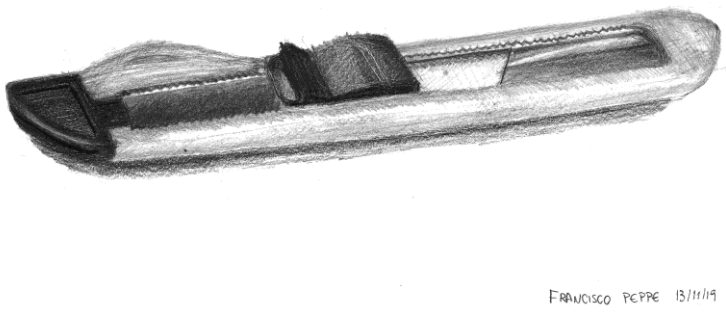

Figure 14 – Detail, observation drawing, object, A4 size, student Francisco Peppe. Source: the authors, 2019

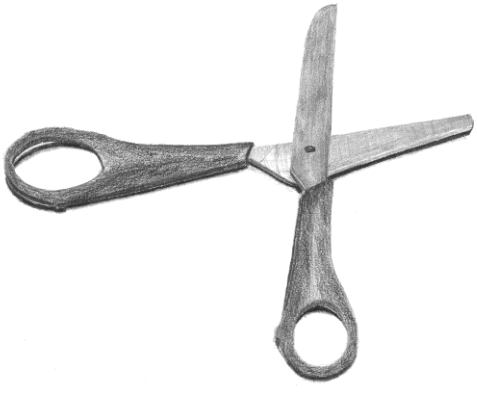

Figure 15 – Detail, observation drawing, object, A4 size, student William Sahm. Source: the authors, 2019

The biggest difficulty here was to find the necessary contrasts with the different shades of gray that graphite provides. At the same time, no part of the object is simply white, however much light it is receiving. Thus it is necessary to calibrate the hand so that the light and shadow are clear, considering the type of material, its texture and its color.

Figure 16 – Detail, observation drawing, live model, A3 size, student Vitoria Nogueira. Source: the authors, 2019

4 Conclusion

The drawings brought here are just a sample of the results acquired in the workshops and served to exemplify not only the suggested route, but above all, where it was possible to arrive. The interaction between current practices in the area of drawing,

within the scope of the graduation course in Architecture and Urbanism at IAU.USP, and the practices arising from the activities of the Integrated Master in Architecture at FAUP allowed a denaturalization of the students' perceptive process. When faced with the need to originate new signs in the constitution of a language already used, workshop participants were able to identify the origin of a new meaning system. When looking for the most appropriate line or the most distinctive shade of gray, they bring to consciousness the meaning of the language itself, but which is only legitimated in relation to what is external to it, the object seen. Reviewing the other necessarily implies reviewing yourself, as previously discussed. The experience of the drawing language becomes the experience of the world itself.

Drawing can be understood as a unique perceptive condition of access to the world allowed, through a phenomenological approach to the process, the possibility to characterize the contribution of drawing in the training of architects and urbanists. For this, a path was elaborated that started from the understanding of the perception and the relationship between space, perceptive act and drawing and then arrived at the key question of the study: applying such theoretical basis in a practical activity, an activity developed in two drawing workshops.

The importance given to learning how to draw, especially in the area of Architecture and Urbanism, goes beyond mastering the technique: it is based on learning to look, to observe. Here, we start from the premise that drawing is not simply a representation tool, but rather – based on the merleau-pontyan phenomenological bias – a tool for accessing the world of perception, a means of contact with this world, since it is an action of recognition of and by the body itself. The subject is the “being-in-the-world” and, in this sense, he builds this world as he builds his living, experiences, inferences and senses. Drawing is to experience. Drawing is to know. Drawing is to build and build oneself.

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