

Drawings of the city: Practice and method, an experience

Desenhos da cidade: Prática e método, uma experiência

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urban morphology,
graphic journal,
urban quality

How can the drawings contribute to the understanding of the complexity of the city? The discussion begins with the researcher's attentive eye on the city during the process of drawing. When seeing the city from the drawing, it can improve the understanding of the urban phenomenon and suggests patterns and shapes collected in the sketchbooks, also called the graphic journals. Such shapes are related to the categories of identity, imageability, and urban quality present in the studies of authors such as Lynch and Cullen. The systematization of these morphology patterns, found when walking through the city, can be a way of relating a sensitive investigation method (the drawing) with a rational abstract method, suggesting the quantification of these forms as an index of urbanity. This article reports the investigation process of this method through a teaching experience practice when it was proposed to reflect on the practice of drawing using the graphic journal.

morfologia urbana,
diário gráfico,
qualidade urbana

Como o desenho pode contribuir no entendimento da complexidade da cidade? A discussão se inicia sobre o olhar atento do pesquisador sobre a cidade durante o processo de desenhar. Ver a cidade a partir do desenho além favorecer a compreensão do fenômeno urbano sugere padrões de formas colecionadas nos cadernos de desenho, os diários gráficos. Tais formas relacionam-se às categorias de identidade e qualidade urbana presentes nos estudos de autores como Lynch e Cullen. A sistematização desses padrões de morfologia, encontrados ao caminhar pela cidade, pode ser uma forma de relacionar um método de investigação sensível (o desenho) com um formato abstrato racional, sugerindo a quantificação dessas formas como índice de urbanidade. O artigo relata o processo de investigação desse método através de uma experiência de prática docente, onde foi proposto reflexão e prática do desenho através do uso do diário gráfico.

1 Introduction

This article intends to suggest a discussion, through an experience of teaching practice and a literature review, about the potential of drawing as a practice and method to understand the city.

In this way, the main objective is to suggest a model of perception of the city through drawing.

To achieve this general objective, the specific objectives are:

1. To review the literature on the drawing theme and its use to understand the phenomenon and urban morphology;
2. Systematize the exercises proposed during teaching practice, in the class called Advanced Topics of Perception and Representation;
3. Compare the drawing results obtained in the class with the urban morphological models.

1.1 Justification and hypothesis

The urban phenomenon is constantly changing. The city has been studied more and more diligently, in an attempt to understand its dynamics and transformations to propose projects and policies more suited to its complexity, understanding social differences.

Among the new possibilities, Ascher (2010) suggests that information and communication technologies are expressions and tools that the new society, called reflexive, has. And it can be used to face urban problems in an iterative, flexible, responsive, and more autonomous way.

The new technologies allow a displacement from the study object and a more refined investigation of urban dynamics' morphological and quantitative data. However, the study of the morphology of the city still lacks an affection understanding of urban spaces more sensitively and carefully when observing. We can not assure that spaces will become places¹ (Augé, 1994) by using the techniques and convictions of current urban planning. There is a great number of examples of how the current space production dynamics have been frustrating residents' expectations. The consequences are diverse, such as segregation, gentrification, and a neoliberal policy that doesn't agree with basic human rights.

The technological advances, as Ascher argues, expanded and made it possible to achieve a more systematic planning facilitating diagnoses, production of scenarios, alternatives, and monitoring. Despite that, these technologies in the city, within a production system and capitalist organization are offering damages to their users, and require an urgent review (Morozov et al., 2019).

In this way, we intend to suggest a more careful and direct way of apprehending space from the drawing in space, which, being an analogue dispositif, can be combined with digital innovations, but maintaining the affective character of direct experience in space.

Among the various codes of representation of spaces, even the 4 dimensions or 5, architecture surpasses. Zevi (1996) states that to understand space it is necessary to participate, "this reason for will and this awareness of freedom that we feel in the direct experience in the space" (Zevi, 1996, p. 51). Barata (2019) adds that a careful look,

1 The notion of place permeates the inscribed and symbolized meaning. It has aspects that convey a sense of belonging in the collective consciousness of its inhabitants. He created bonds with the people who gave him meanings. These meanings can come from different origins, where there is an integration of elements of nature and elements of cultural order. It is part of the collective conscience and is distinct from other places.

not distracted, in the experience in space reveals practical and more exact notions of shapes, scales, dimensional relationships, textures, color, light and shadow, amplitude, and closure.

This article seeks to discuss the ways of seeing the city to identify physical and morphological aspects in the urban context, as an exercise of discovering identifying marks of the existence of places or that suggests quality. The research seeks to see the city as an experienced environment and not as a distant “object”.

2 Literature review

2.1 About drawing

The discussion about drawing here refers to the importance given to this practice in reading the urban landscape. Rodrigues (2003, p. 45), on the purpose of drawing, states that a drawing can represent the reality of the world, it can transform it, or it can also present a form or object that does not yet exist.

Drawing is defined as:

Drawing is a mode of graphic expression that, using sensitivity and affection as privileged instruments of a specific way of thinking, beyond a logical-deductive reasoning, participates in the process of artistic and spatial artistic creation, as an intermediary and as an object with its own identity (Rodrigues, 2003, p. 80).

2 A scientific study of the creative procedures of works of art. The poiesis has as its object of study everything that participated in its existence, different, for example from the Aesthetics that deals with the work itself. Sciences such as chemistry and physics are related to poiesis, in addition to the humanities that contribute to an anthropology of creation. It integrates sciences and technologies to observe what is creative when using them. It proposes to clarify the concept of creation related to other concepts such as production, manufacturing, installation, elaboration, work, artwork. The term poiesis was coined by Paul Valéry in 1937.

Among the types of drawing, the observation one stands out. Because the experience of seeing an object or space by drawing implies a disciplined and organized observation. Unlike a distracted look, an active look is necessary. When drawing, knowledge is also acquired through the investigation of form, being an experience deep and intense for the observer drawing.

During the experience, some aspects are developed, among them initially the education of the gaze by distinguishing, between the range of visual stimuli captured by the brain, the important elements and ordering them. After identification, the manual drawing technique follows the imagined instructions. This harmony between observing, distinguishing and tracing results in the observation drawing process. When organizing the thought and having in front of it the images that one wishes to reproduce occurs, in the artistic poietic² (Rodrigues, 2003, p. 100), sensitivity and affection as part of the process. The affective character is different from feeling, existing beyond the human, distances itself from the freedom to interpret meaning or subjectivity (Ferrara, 1993).

The drawing does not have particular codes, there is a tendency for direct reproduction and, with constant practice, there is a development of the technique and its own expressions. Rodrigues

also states that drawing is a result of our spatial and phenomenal relationship with the world and also of the will and ability to draw. In this way, a personal result is printed on the drawing: the identity of the designer contained in the stains and lines.

Rodrigues states that there are two ways to draw: observation drawing, that is, drawing from the outside in, investigates reality more precisely, referring to the concept of mimesis, of creative imitation; and the creation drawings, the drawings from the inside out, where the object does not previously exist, does not pass through the perceptual senses, referring to the concept of poiesis (Rodrigues, 2016, p. 24).

Drawing is an investigation that establishes the relationship between the observer and the observed, but above that, in addition to graphic expression, it collects information, observations from the perception and sensations of the study area. The space to be studied, in the context of this research, is the city, where the urban morphology reveals social relationships and where the social structure is inherent to the configuration of the space (Hillier & Hanson, 1989).

2.2 Discussion about the attentive look

Seeing the space of the city means, in the context of this research, a way of interrogating the complex system that is the city. Barata (2019) states that for this, it is necessary to follow a necessarily non-linear process that can only be understood by the sciences of complexity, making an interdisciplinary dialogue between the arts, sciences, and techniques.

Complexity is defined as an evolutionary systemic parameter, present in all systems, including the city, characterizing its organization and structure (Vieira, 2008). In this way, we seek to analyze urbanity characteristics of the urban phenomenon associated with complexity but also related social and economic problems, contradictions, segregation.

Barata says that seeing the city, with an attentive, interpretive eye, allows a better understanding of the varied realities transposed in the set of urban spaces in the city complex reality. In this way:

What matters when trying to “see” the City with an intelligent eye is to try, through the signs and clues that observation allows to understand, to understand its life and behavior as a system, to place each reference within the urban whole, to read in each revealing detail the great urban “machine” to be made, to be constituted, to evolve. Otherwise, the gaze on the city is just the distracted gaze of the tourist, or the disinterested gaze of the routine inhabitant, or the limited gaze of the sectoral and technical specialist, or the kind but the short-sighted gaze of the collector of city memories and factoids, or the journalism of the small local chronicle (Barata, 2019, p. 82).

The experience of seeing the city in person, amplified by seeing it through drawing, in addition to a rich and deep experience of understanding is characterized as a sufficiently sensitive investigation technique. This direct experience takes place mainly through movement. Walking in the city in ambulation or in a determined way allows a more faithful notion of the shapes, voids, scales, limits, amplitudes, topography.

2.3 The drift

The practice of walking and understanding the city comes from the history of the origins of humanity, of the migrations of peoples. Through walks, crusades, explorations the spatial appropriations and the mapping of territories began.

Careri (2013) states that today nobody advises the practice of losing oneself, walking aimlessly, wandering. However, he believes that when transposing this experience of being lost, of recreating new points of reference, it is regenerating on a psychic level. The drift (*dérive*), is a technique or playful activity initiated by the dadaists, surrealists and later researched and improved by Guy Debord, 1955. This playful method proposes to explore the city collectively through ambulation. Based on the concepts of psychogeography, it is not only characterized as subjective but also as an experimental method for observing the streets (Careri, 2013, pp. 88–89). It is suggested, therefore, that the practice of the *derive*, in addition to serving as a method for attentive apprehension of the constituted spatiality, collaborates with the filling of urban amnesias, spaces waiting to be filled with meanings and understood.

The experience of walking around the city and documenting the experience through drawing can be found in the graphic journals, also called sketchbooks. Brasil (2018) characterizes the graphic journal as notebooks with pages without guidelines for everyday drawings and brief notes. Professor Lagoa Henriques, around the 1970s, further states that this term has a didactic relationship:

The graphical journal is anything that we, as far as possible, write about the reality that surrounds us every day. It is the unavoidable risk in which the drawing is a priority, but the word also appears, because both the drawing and the written word are calligraphies. The graphic journal happens should not be an obligation, it must be a necessity, it must be anything that is part of our existence. And it always happens, say, since man exists (Henriques, L. apud Salavisa, 2008, p. 142).

The use of the graphic journal brings together the experiences of carefully observing the city, with the look of a researcher, documenting and understanding its morphology through drawing and possibly finding forms and standards of environmental quality.

Many architects are in the habit of using the graphic journal, also called “sketchbooks”, for example, Le Corbusier. There is still a large community of people who gather around the world and document cities through drawing, they are called “urban sketchers” (Thorspecken & Salvaterra, 2014).

3 Description of the experience

The class of Advanced Topics in Perception and Representation was held in the second semester of 2019, available as an option for the Architecture, Urbanism, and Design courses. It proposes to provide reflection and practice through drawing, with the graphic journal as an inducer of the transition from observation drawing to creative drawing. Its priority is the representation of the landscape and urban elements. The proposal objectives of the class syllabus is the transition from observation drawing to other creative possibilities of drawing, from expressive representations to imagination drawing.

Based on the theme of the city’s image, the main objective of the discipline was to encourage observation design as the driver of the invention, proposing guide activities to encourage the use of the graphic journal. The specific objectives were to:

1. Propose strategies for using the graphic journal in the Design, Architecture, and Urbanism courses;
2. Reflect on the practices of drawing as systematizers of creative thinking;
3. Development of representation skills promoting a view of the city.

The discipline was divided into two parts. The first part was focused on the theme of design taxonomy and concepts, where the student had a greater creative possibility. The transition from observation design to creative, imaginative design was emphasized. The second part was centered on the use of the graphic journal and its possibilities. Students would be encouraged to carry out poetic essays about the city, creative practice of representing elements of the urban landscape. The whole discipline was organized into topics or statements where each day of class activities was proposed to be developed. 9 statements were made, with 10 being the realization of an individual project. This methodology for creating statements was thought of from the model of Cabau (2011).

The first 5 statements comprised the first part of the discipline, where the focus on creative drawing prevailed. The proposed statements encouraged students to examine their imagination based on literary texts, where they were faced with the mission of drawing “A Casa” by Natércia Campos or the library of Náutilus by Jules Verne. Another statement proposed to draw the interior space of some very small object, where it would be transformed into a house. Design of a temporary

installation or even create shapes from the voids found in architectural projects. Having access to the museum close to the university, students were also encouraged to draw a series where they entered the arranged paintings and drew the possibilities of these internal spaces.

In the second part of the course, the space for observation was expanded to the city. Referring to the drift proposed by Guy Débord and based on the text by Perec (2016), students should draw everyday objects, urban furniture or human remains, present in two squares. Then, already in another place, close to the Law course, the proposed statement was to draw the immense water tanks in small square like comics, facilitating the process when drawing parts of the structure in cutouts. Another statement was inspired by the serial vision³ defined by Gordon Cullen (2008), in this case, harmonium paper, which is, folded in an accordion format, was used to support the perspectives found in the Centro neighborhood. Then, still following the strategies of the serial view, the design was proposed on a different support, the planned paper box. The last exercise was an individual project, each student, based on the statements and personal interests, should propose a drawing of the landscape on the support created by themselves.

3 Gordon Cullen defines serial vision as the presentation of the urban landscape to the pedestrians when crossing the city. Even though walking uniformly, the landscape appears most of the time as a succession of surprises or unexpected revelations. When crossing the spaces of the city we can perceive widening or compression of the paths, formats of the urban context that appear and disappear theatrically.

The second part of the course was closer to the attentive look that we sought when understanding the complexity of the urban phenomenon dimension. When studying urban morphology, we can recognize, in some perspectives drawn in the graphic journals, similarities with the elements of the landscape studied by Kevin Lynch. Lynch (2011) elaborates perceptual categories of spatial quality that allow the generation of an image of strong identification between space and inhabitants, this capacity he calls imaginability. The content of the images made by the inhabitants can be assigned and classified into five types of elements: roads, limits, districts, nodal points, and landmarks. The formation of the image of the city and the identification of the inhabitants generally includes these five elements as a reference.

Similarly, Gordon Cullen lists a series of classification entries for images formed by the urban landscape that affect our senses. He considers three aspects, the optics, listing the points of view of the route as revelations to the eye; the location, related to the sensations we have when entering certain spaces; and the content, which concerns the constitutive aspects of the city such as color, texture, scale, style, nature, personality, individual characteristics. The architect and professor Daciano da Costa also elaborates some categories of perception of the urban image, reviewing the techniques of observation and representation in his discipline of analytical design (Ferrão & Martins, 2013, p. 20).

Based on references such as those mentioned above, a table (Figure 1, Figure 2) was created, systematizing possible drawing categories, for each category an element of memory (quality category) was assigned, that is, the type of image that this category represents; then a description of the category; the drawing technique used in the graphic journal; and finally the reference of the author who studied this type of category more deeply.




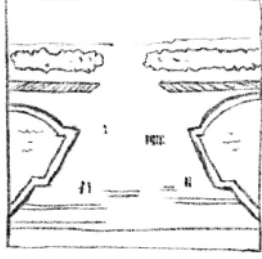
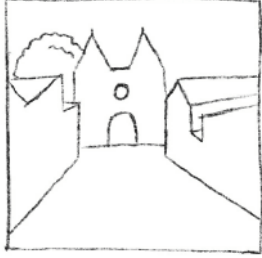
Drawing category	Quality category	Description	Technique	Reference	Example
Skyline	-Openness	Wide and continuous view of urban elements.	Silhouette	MOLLIÈRE, B.; SIMÕES, J. DA R. (2017)	
Panorama	-Openness	Increased visibility due to topographic position.	A progressive gradient. Distinctness gradient. Variation in the thickness of the strokes for illusion of depth.	MOLLIÈRE, B.; SIMÕES, J. DA R. (2017)	
Detail	-Identity - Living facades	If we are attentive to detail, (...), the built world becomes more interesting, and gains in quality.	Unique small-scale drawing.	CULLEN, G. (2008)	
Grand / volumetric perspective	-Identity -Openness	(...) they are recognizable because they have common characteristics that identify them.	Drawings that show the here and the beyond. Dividing the distance into two parts.	LYNCH, K. (2011)	
Veiled perspective	-Enclosure -Sensory impressions	They are boundaries between two types of areas, linear continuity breaks: beaches, river banks, railroad cuts, walls.	Enclosure. Element that blocks perspective.	LYNCH, K. (2011)	

Figure 1 Design and quality categories.

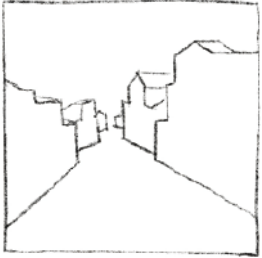
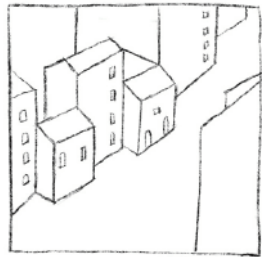
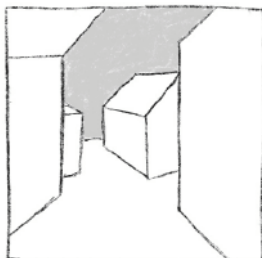
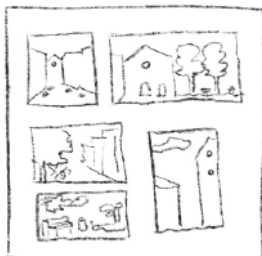
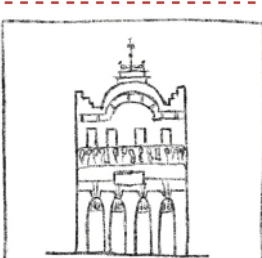
Drawing category	Quality category	Description	Technique	Reference	Example
Delimited perspective	-Enclosure	They can be streets, boulevards, transit lines, canals, railways. For many people, they are the predominant elements in their image.	Confinement. Usually perspective with one point of view.	LYNCH, K. (2011)	
Approach perspective	-Enclosure - Living facades	All roads. For many people, these are the predominant elements in their image.	Design of projections and recesses, continuity of the street.	LYNCH, K. (2011)	
Sky clippings/voids	-Sensory impressions	Sky shape cut out by the elements of the urban landscape.	Diaphragm / Profile	LYNCH, K. (2011)	
Serial view	- Identity through narrative - Openness of different points of view	Visual documentation of the path.	Draw on frames	LYNCH, K. (2011) CULLEN, G. (2008)	
Facades	-Identity - Living facades	They are generally used as indicators of identity, or even of structure, and appear to become more reliable.	Front view	LYNCH, K. (2011)	

Figure 2 Continuation of the design categories.

The association of the categories studied in the theoretical framework and subsequent systematization aims to help researchers and designers to identify elements that make up the urban landscape, having strong images that suggest identification and urbanity.

The systematization of the drawing categories, quality concepts, techniques, and examples of design, besides having the potential for formalizing an urban quality index, also contributes to the teaching of drawing. The categories suggest viewpoints and elements to be seen by the artist's attentive eye, contributing to the understanding of the urban phenomenon as a morphology. The look, directed to the perception of these categories, apprehends aspects of imaginability, amplitude, and closure, living facades in their details and sensory impressions.

4 Discussions

The report of this research and practice experience intends to discuss a way in which the practice of drawing can contribute to the understanding of the complex city. As explained, interdisciplinarity and constant exchange between the arts, sciences, and techniques are necessary for a better understanding of the urban phenomenon.

With the students' poetic experience and the literature review was possible to seek strategies to systematize the categories of drawings that can indicate the city's quality and identity, they are outlined in the table of categories. By organizing it in this way, it is intended to suggest, as an imminent future exercise, an abstract rational formalization, to transpose the practice of drawing as a quantitative method to measure urban quality through the presence of these categories, the relationship between them and the relationship between them and the ones who draw.

The success of the teaching practice was mainly due to the creativity attributed to the statements (exercises) and the experience of the guiding professor. The students' studies helped to highlight the categories discussed by the studied literature that later resulted in the elaboration of the table.

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