

05.

Design at the University of Aveiro: Drawing is Thinking

Design na Universidade de Aveiro: Desenhar é Pensar

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We identify as the nature of thinking in Design, the critical and creative predisposition of the designer for constant questioning, motivated by his restlessness and curiosity that, through the drawing, discovers solutions to pre-existing problems, but also the new, thus imagining the future and validating Design practice, as a laboratory of innovating (knowledge production). This reflection proposes drawing as a manifestation of thinking and an instrument of design language. Starting from the verification of the importance of drawing in the curricular plan of the Degree in Design at the University of Aveiro, we reinforce this positioning by summoning authors with a reflection about the theme and with responsibility in training students, designers, and architects whose drawing practice is the root of thinking and the manifestation of authorship and, events that reveal the drawing to the general public, or that invite the public to draw, imagine, think.

Keywords drawing as thinking manifestation, drawing as tool and language, from drawing to design, design desire designum, design at University of Aveiro.

Identificamos como natureza do pensamento em design, a predisposição crítica e criativa do designer para o questionamento constante, motivada pela sua inquietação e curiosidade que, descobre através do desenho, soluções para problemas pré-existentes, mas também o novo assim inventando o futuro e validando a prática projetual, como laboratório de inovação (produção de conhecimento). Este contributo, propõe a demonstração do desenho como manifestação de pensamento e instrumento de linguagem do Design. Partindo da verificação da importância do desenho na estrutura curricular da Licenciatura em Design da Universidade de Aveiro, reforçamos este posicionamento convocando autores com reflexão sobre a temática e com responsabilidade na formação de estudantes, designers e arquitetos cuja prática de desenho é raiz de pensamento e manifestação de autoria e, eventos que revelam o desenho ao público em geral, ou que convidam o público a desenhar, imaginar, pensar.

Palavras-chave desenho como manifestação de pensamento, desenho como instrumento e linguagem, do desenho ao design, desenho desejo designio, design na Universidade de Aveiro.

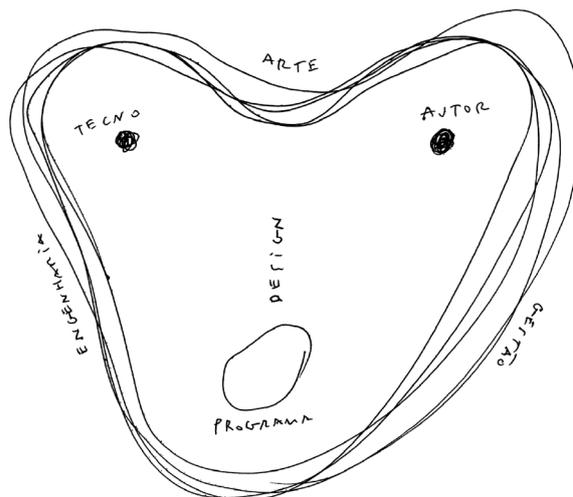
1. Introduction

The communication *Design at the University of Aveiro: drawing is thinking* brings together the contribution of selected authors who draw and reflect on drawing, to present drawing as an instrumental means and expression of thinking, namely in Design taught at the University of Aveiro. Structured in three points, preceded by Introduction and followed by Conclusion, we observe at first point - *Drawing in the Degree in Design at the University of Aveiro* - the curricular plan, whose organization follows the tripartite ontological proposal Author, Technology and Program, declined, respectively, in each of the three years of the course. We highlight the evident importance given to drawing through the analysis of the workload and credits attributed. We continue the text presenting different drawing functions in the project and the reflection in Design – *Register, Communicate, Imagine, Think, Invent – Draw the future* – which we list and systematize, based on the references compiled here. Finally, demonstrating the use of drawing in an academic context and involving the entire community – *Drawing a country, drawing a city* – we present the projects *Y_Desenhar Portugal* and *Big Draw*. We conclude this reflection by emphasizing the importance of drawing in designers' training and professional practice, as it constitutes the production of knowledge and, in this way, the Design of the future.

2. Drawing at the Degree in Design at the University of Aveiro

On the occasion of the twentieth anniversary of the Degree in Design at the University of Aveiro (2016), Branco & Providência (2017), invited to share knowledge and their teaching experience, presented the decline of ontological agents of Design – *Author, Technology, Program* – proposed by Providência (2003), three years after this Degree. Although the three poles are present in the contents of each year, the authors note that there is a greater strategic focus on the Author vertex (exploring/outlining the language of the student/group of students) during the first year, from the Technology vertex (designing/facing material and technical restrictions as creative means of production) in the second year, and the Program vertex (communicating/dealing with companies, responding to specific customer needs) in the third year.

Figure 1.
Ontological Diagram of Design
"Author, Technology, Program"
by Francisco Providência – Drawing
by Francisco Providência, 2001.
Credits: Providência Design.



Analyzing the Curriculum Plan of this Degree¹ (University of Aveiro, 2020), we notice that there are six mandatory Drawing Curriculum Units, regularly distributed, in each of the six semesters of the formation of this 1st cycle (an incidence only comparable to the Project Curriculum Units) and whose weighting for evaluation varies between 6 and 10 ECTS. Understood as a laboratory exercise, the workload, never less than 4 hours per week, implies, in the first semester of training, the most outstanding dedication of students, in a total of 7 hours per week of drawing practice. When, in 2001, the University of Aveiro hosted the fourth edition of the *EAD Conference – European Academy of Design*, it did so under the theme *Desire, Designum, Design*, in a variation of the proposal to define Design as “the manifestation of design, the result of desire that pursues a purpose” (*Desire, Designum, Design*) (Providência, 1998, p. 134), also positioning Design Research at this University for drawing.

3. Register, Communicate, Imagine, Think, Invent: Design the future

With an essential contribution to the affirmation and enhancement of Design in the national territory, the Portuguese Design Center (CPD) in one of its promotional materials for the Motivation Campaign for Industrial Design, a joint initiative with the then Ministry of Industry and Energy of Portugal highlights drawing as a spontaneous way we have to register the world around us, to understand the meaning of things, to express our emotions and desires, to communicate with others and to think. Based on

¹ The Degree in Design at the University of Aveiro is an accredited course by A3ES – Agency for Assessment and Accreditation of Higher Education. Available at <https://www.a3es.pt/pt/resultados-acreditacao/design-17> (accessed on October 28, 2020).

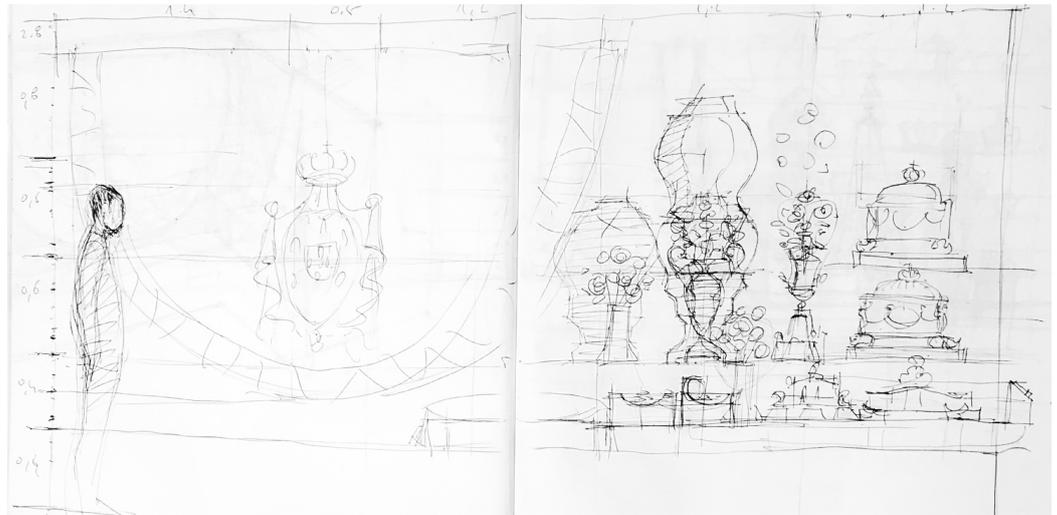
the evidence that all objects around us were drawn, we can read: “in this whole complex process of imagining an object and making it, Man has a precious means that helps him think - Drawing” (Portuguese Design Center, nd).

Drawing as imagination, desire, and thinking lead us to two texts – *An Imagined Being: The Stereotyped Influence of Places* – where we can read “what the designer asked to do not design or present reality, but imagine the people’s desire for this reality” (Providência, 2018, p. 58) and – *Design as thinking* – which claims “actually it is about claiming that thinking, producing and planning actions are, at their foundation, properly Design, the moment has arrived of full awareness and full recognition of this fact” (Cruz, 2015, p. 82).

Francisco Providência draws for pleasure, practice drawing, draws a lot, always draws. Drawing is part of his way of life. He draws to communicate with clients, students and with himself. He draws when the words are no longer enough, draws before the phrase, as we all did as a child. However, if most of us have forgotten because they gave up drawing, he insisted, and his 21x21cm notebooks crossed out in black with a fine-tipped Bic pen, they are the memory of what he thought, of what he thinks now and of what he desires, imagines, thus inventing the future, his and ours.

Figure 2.

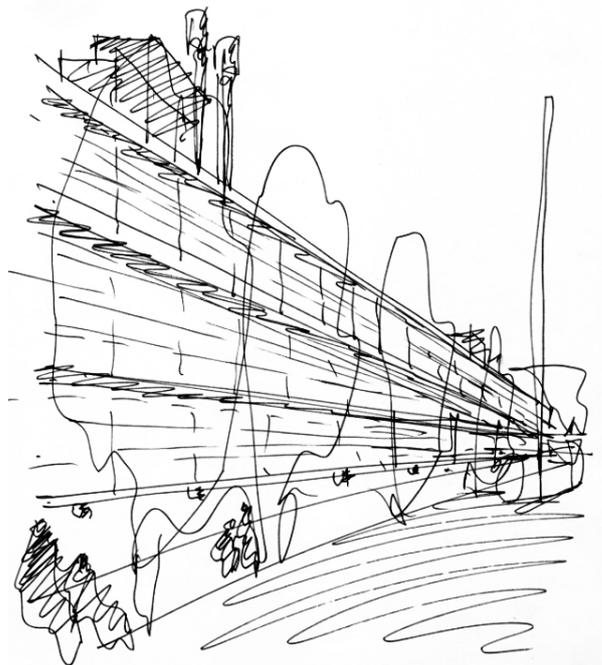
Study of the Portuguese Royal Treasury museographic project, Ajuda National Palace, Lisbon – Drawing by Francisco Providência, 2020.
Credits: Providência Design.



On the occasion of an open drawing class at the Faculty of Architecture of the University of Porto, Providência (2016), questioning (himself and the audience) what a school of drawing is, he proposes to be “a school that uses drawing as an instrumental means for knowing, thinking, proposing” and, he adds, “a school of design is a school of design, a word that has its origins in drawing (*disegno* in Italian, which means *graph* and *design*, or in other words, *representation* and *project*)”. Then, evoking the architects Fernando Távora, Álvaro Siza and Eduardo Souto Moura, he stresses that they all invented their architecture through drawing.

Figure 3.

Department of Geosciences, University of Aveiro, Aveiro – Drawing by Eduardo Souto Moura, responsible for the architecture project, 2004.
Credits: <<https://www.publico.pt/2012/11/22/culturaipilon/fotogaleria/desenhos-de-souto-de-moura-313340>> (accessed November 9, 2020)

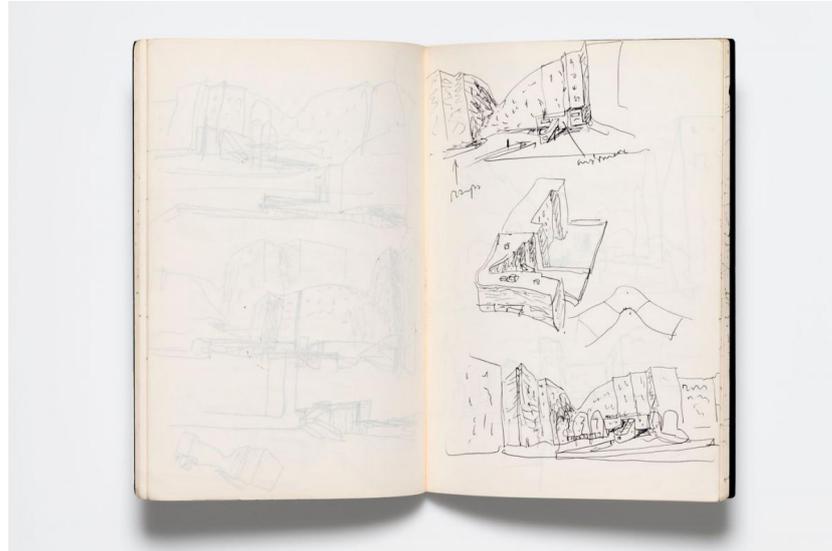


This idea is confirmed in the reading of *The Importance of Drawing*, by Álvaro Siza, which we invite here in excerpt:

Drawing is a form of communication, with the self and with others. For the architect, it is also, among many, a working tool, a way to learn, understand, communicate, transform: project. (...) All gestures – also the gesture of drawing – are loaded with history, with unconscious memory, with incalculable, anonymous wisdom.
(Siza, 2019, pp. 29)

Figure 4.

Sketchbook 74:
Berlin – Drawings by Álvaro Siza.
Credits: Canadian Architecture Center
<<https://www.spanisharchitects.com/es/architecture-news/destacados/el-archivo-del-arquitecto-portugues-alvaro-siza#image-3>>
(accessed November 9, 2020)

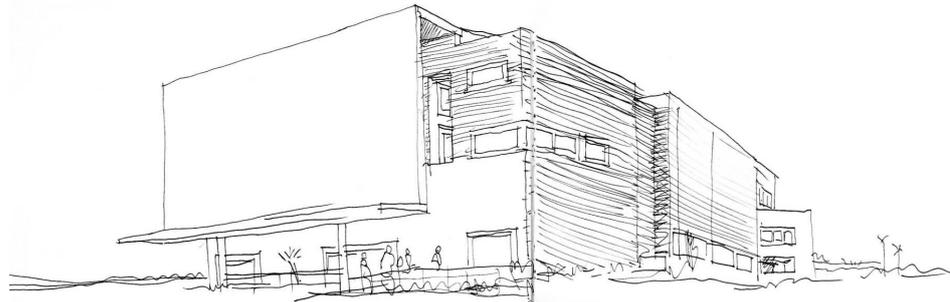


In this sequence, we review the *Designerly way of thinking, knowing, communicating, and acting* proposals (Simon, 1996 [1969 1st ed.]; Archer, 1979; Cross, 2001) to relate them, by communion, to the characterization of the Design (project) as an instrument for knowing, thinking and proposing, which we read in Francisco Providência, and as a way of learning, understanding, communicating and transforming, suggested by Álvaro Siza.

We also recognize Eduardo Côrte-Real (2009, p. 58) drawing, which reveals drawing as a way of concentrating. In his travelling, he looks for the *Invisible Drawing*, that is, drawings that disappear as drawings, in favour of what he is drawing (the place), possible only when we are drawing with all the senses involved, favouring to the drawer, the feeling of belonging to the designed place because drawing there is the most important thing. Thus, we are talking about someone with an extraordinary capacity for representation, which allows us to identify the thing the author says it is by eloquent similarity to the drawn object.

Figure 5.

5 "Siza's nice elephant", University of Aveiro Library, Aveiro – Drawing by Eduardo Côrte-Real, 2015.
Credits:
<https://eduardocortereal.wordpress.com/2015/01/27/sizas-nice-elephant/> (accessed November 9, 2020).



Invited to share his understanding of drawing, based on the drawings of Eduardo Côrte-Real, Dilnot seems to start a monologue, revealing to us:

the paper or the blank surface – the wall, the ground, the scroll – from which all drawings begin. Why does this surface matter? Because it is blank. White. An absence that is also full. Of what? Possibility. (...) The surface is the space of possibility (...) to draw is to allow oneself to be lost in possibility (...) To draw is to lose ourselves, even for a second, in this understanding. The joy of drawing is to secure the significance of this moment from the disappearance of experience that time effect. (...) For the joy is not in these things but in the peculiar relationship between line and thing and mind – and energetics – that constitutes the drawing. (...) Insignificant? Hardly.
(Dilnot, 2009, pp. 28–37)

Figure 6.

"Cumulus Schwäbisch Gmünd, 2007 – 6", Cumulus Conference, Schwäbisch Gmünd, Germany – Drawing by Eduardo Côrte-Real, 2007.

Credits:
<https://eduardocortereal.wordpress.com/category/conferences/cumulus-schwabisch-gmund/> (accessed November 9, 2020).



We also call Milton Glaser to whom *Drawing is Thinking*, in the sense that he considers that "what is essential is the relationship between the hands and the brain. (...) In my case, drawing forms a very important component of my understanding" and challenges us "the task is to understand what you're looking at" (Glaser, 2009, p. 15), or Fernando Brizio who reports:

The use of drawing in Design seems to us essential and unavoidable. It serves multiple purposes: it helps us to understand reality, to interpret project contexts (human, technological, productive), to think, test and feel solutions, to communicate results and to construct material or immaterial objects. Drawing is the tool and the language that helps us cross the surface of things, allowing us to penetrate their thickness.
(Brizio, 2011, pp. 5)

Although far from the practice of drawing, Maria Teresa Cruz's reflection is convergent in this defence of the matrix value of Design. The author, recognizing that Design is today a knowledge that explains how we can think, proposes "Design as a philosophy of our time, as an operative ideation, as the only theory capable of manufacturing a universal practice that responds to the global disorientation of the century" (Cruz, 2015, p. 83).

Drawing prints information about the object and, in doing so, "the object will become transparent to others, that is, a contribution of resistance to the reification of the body (...), recovering the body for existence, summoning the truth" (Providência, 2012). And, in confluence with the idea of *Design as the philosophy of our time*, we visited Flusser in *A Philosophy of Design: the form of things*, where, stating Design as intention, the author writes, "design represents the point where great ideas converge which, deriving from art, science and economics, have enriched and creatively overlapped one another" (Flusser, 2010, pp. 12–13).

4. Draw a country, draw a city

As an example of the convergence of these Design domains (thinking, conceptualization, Design and realization), we share the Schools project, which, as part of the *Porto Design Biennale 2019*², invited 35 Portuguese Design schools (public and private, University and Polytechnic Schools based on the continent and islands) to reflect on the projects developed by its students (Generation Y, related to those born in the new millennium), between 2016 and 2019 in the three training cycles (Degree, Master and Doctorate). The schools that responded to this call submitted projects that fulfil a representative role of their strategic thinking on Design, and its socio-economic and cultural impact, in their territories, giving the *Y_Desenhar Portugal* exhibition the possibility of national mapping of the arguments of the teaching in Design by the evidence of drawing.

Of these projects, the curator team, consisting of Francisco Providência, Joana Quental and Rui Costa and an exhibition project by Miguel Palmeiro (professors at the University of Aveiro and researchers at the ID+ Research Institute in Design, Media and Culture), selected a total of 60 projects, illustrative of the discovery of renewed opportunities for drawing, by proposing new solutions to old problems (Degree and Master) and the generation of contemporary issues, thus expanding the domains of Design (Doctorate).

Taxonomically interpreted in an extensive circular corollary of designations, articulated in a tree from the trunks of *Authorship*, *Technology* and the *Program*, the results exposed by its prototypes reveal the restlessness and disciplinary extension of Design in contemporaneity, permanently opening up to new areas of mediation.

² The first edition (2019) of the Porto Design Biennial was developed, taking as its central theme "Tensions of the new millennium" - Post Millennium Tension (Afonso, 2019).

We also share the experience of our participation, in 2018, in the *Big Draw* event (*Barcelona Dibuixa*)³, a set of free workshops spread across various spaces in the city, which invites the entire community to draw, think, and imagine. From the different activities proposed by artists, illustrators, architects and designers, we highlight the *Cuidad Parade*, where participants were invited to design the facade of their house (real or imagined), transforming the Picasso Museum room where the initiative took place into a big city, projected with black marker on corrugated cardboard. The collectively imagined city grew under the inspiration of the sets and costumes that Pablo Picasso created for the ballet *Parade* in 1917⁴ (Colomer, 2018).

5. Conclusion

We conclude this reflection, where we discuss drawing as a manifestation of thinking, distinguishing the representation drawing of the project, or the descriptive thinking of the prospective. In Eduardo Côrte-Real's drawings, it is possible to observe the reproduction of the human figure and the architecture that the author sees, not responding to the resolution of a problem but instead to a representation of existences. The drawing that we present by Eduardo Souto Moura, in this case, also corresponds to his interpretation of the landscape, as a project illustration, by hand raised, which can be executed after the work is built. On the other hand, in the drawings that we have selected by Francisco Providência or Álvaro Siza, what the authors do represents what did not yet exist, imagining it. In these cases, we observe a project design that, as a condition, anticipates the form, giving life to what was not yet.

The common point of the authors that we review here is an insistent practice of drawing. In this context, we bring from Brízio's words, the imperative need for its exercise in the teaching and professional practice of designers:

considerations, more or less consensual about the importance of drawing in design and its relationships, are of little use in a context of teaching or a practice of design until they are perceived, felt and thinking of based on making.
(Brízio, 2011, pp. 6)

We learn to think through drawing when drawing a lot, when drawing is a vital daily practice, as we learn from the example of Francisco Providência, Eduardo Souto Moura, Álvaro Siza, and Eduardo Côrte-Real illustrated here, and so many other designers, architects, illustrators, creatives. But drawing as an instrument for the production of knowledge is attributing form (shapes are ideas). Through the pencil, welding and bending metal tubes, enunciating words, using pictures or food ingredients, Design requires severe skills for the exercise of cultural mediation.

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³ Big Draw is an annual event that had its first edition in 2010. Barcelona hosts the drawing party for one day, inviting participants, usually families, to experiment freely, spontaneously and free of charge with different media and materials, responding in each workshop to diverse creative proposals, thus expanding your design awareness. More information about the 2018 edition is available at <https://www.barcelona.cat/barcelonadibuixa/edicio2018/es/index.html> (accessed on November 9, 2020).

⁴ With music by Erik Satie and choreography by Léonide Massine for the Ballets Russes, the Ballet Parade premiered (provoking great scandal) at the Théâtre du Châtelet in Paris 1917.

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