Reversible Ideas, Irreversible Drawings.
Time as a Connector in Architectural Drawing

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Abstract

Architectural drawing, as part of a means of communication [Sainz 1990, p. 26] can be understood as the signifier that contains or refers to a series of images and ideas that serve as a referent and that have been, in any case, organized by the author of the drawing. This relationship will not be by definition univocal but, although following different degrees of ambiguity, it will have to be constructed, again and again, for each reader. The interpretation of this graphic signifier, its use in language [Wittgenstein 1958, p. 61], will be an essential mental exercise during the analysis of the graphic and will be directly related to the process of drawing that has been carried out and which, in any case, always requires temporality.
This research work is based on the hypothesis that the reader must carry out an exercise that is almost as important as the author during a process that, as such, involves time and, furthermore, requires reversibility for its achievement. Based on this idea, the relationship (and therefore the distance) between the eye that reads and the hand that draws is analysed. The theoretical approach is accompanied by practical examples to help understand the method developed, based on reversibility as a tool for constructing the graphic image. It is this journey "backwards" [Klee 1976, p. 60] by means of which we are able to end up analysing, valuing and, in short, constructing the graphic criterion with which to evaluate architectural drawing.

Keywords: connector, criticism, Graphic Expression, reversibility, anachronism.

Introduction

We start from the assumption that the connector between both extremes of the drawing process (symbolised by the hand and the eye) is of a temporal nature... that is to say, it will be time, understood as a context, but also as a working mechanism, which will help to define the meaning of drawing, on the one hand, and its way of being constructed in society, on the other. The theoretical approach is accompanied by practical examples to help understand the method explained: although the process of drawing is, *a priori*, linear and irreversible, the process of reading the drawing summons and is based on reversibility as a tool for constructing the graphic image. The reader must perform an exercise that is almost as important as the author. Primarily, irreversibility requires that each graphic is understood as an independent effort to encode a series of ideas and prepare them for a temporal journey that, on most occasions, survives us or is alien to us; equally important, reversibility during reading is the main characteristic that allows one's own [re]considerations about the graphic to be synchronized with those proposed by the great philosophers and critics. The conclusions of this investigation serve to argue the indispensable role that temporal vision plays in the graphic context by serving as a link between the author and the reader and, at the same time, announcing one of the most important (and unnoticed) characteristics that images bring about: the anachronism [Didi-Huberman 2000].

The concepts that are developed correspond, fundamentally, to the two interpretations of the same intent; that which has to do with architectural drawing itself, understood as a process, and that which, for its part, delves into the concept of time applied to the reading of the drawing. The starting hypotheses of the research are the following:
- the distance that exists between the eye that reads the graphic and the hand that creates it has a temporal character. Or to put it another way: time is the main connector between the eye that reads and the hand that draws;
- the process of drawing is, *a priori*, linear and irreversible. On the other hand, the process of reading the drawing invokes reversibility as part of its nature and, inevitably, introduces anachronism into the resulting image.

The aim of this article is to develop a personal research methodology based on the ideas set out above, which, taking into account the temporal factor, will allow us to explain the mechanisms of evaluation of drawing from the asymmetry that, as we shall explain, derives from its process of creation-contemplation. The checking of the hypothesis will be accompanied, as we have said, by the inauguration of our personal way of understanding the reading of the graphic which, based on a critique founded on the importance of the inevitable anachronism, will allow us to outline the conclusions which, as always, will also and in part, represent the beginning of new research.

The hand that thinks (irreversibly)

Thinking about the drawing from the point of view of the end of a creative process brings us back, intrinsically, to the intentions of the artist. It will be the artist who will hold the key to its evaluation since, after the tracing of each line or the incorporation of each color application, the author will carry out the exercise of synchronization between the idea or ideas that are the intention to transmit, and the graphic signifiers with which the author proposes to identify them. During these actions, it seems right to identify the skill of the artist as one of the main tools in an exercise that ends with a specific graphic design. But, following the thread of our discourse, we must underline the condition of action and process that a drawing has in general. The words of Paul Klee (1879-1940) remind us of this when, in his book *Theory-Modern Art*, he writes: "Is a painting ever born suddenly? Never! It is assembled piece by piece, no differently, by the way, than a house" [Klee 1976, p. 58].

Fig. 1. M. de Caravaggio, *Fragment of David vanquishing Goliath* (1596). Available at: Wik-ipedia <https://es.wikipedia.org/wiki/David_vencedor_de_Goliat_(Caravaggio)> (accessed 2021, May 10).

We have, it follows, together with the certainty that the drawing 'appears' —little by little and consecutively, line by line, impression by impression, layer by layer— the condition of being created chronologically, that is to say, following the temporal order imposed by the becoming of our being-in-the-world [Heidegger 1975]. This apparently innocent fact leads us to consider that a drawing is, as the temporal condition was defined after Newton [Prigogine 1979], an irreversible condition… that is, its conformation has no way back, since even the eraser or the superimposed paint will leave an invisible trace on the chosen medium, and, more importantly, will occupy a space of time in the duration of its creation. In Figure 1, for example, we see on the left an original fragment of one of Michelangelo Merisi da Caravaggio's (1571-1610) masterpieces, as it can be read today, and on the right, we reproduce the same fragment x-rayed by Mina Gregori, in which we can see a first version of Goliath's head, more expressive or, in the historian's words, evidencing "the expression of horror" [Gregori 1991, p. 12]. In the centre, superimposing both drawings, the differences between the visible and the invisible can be seen in sequence.

The (redrawing) eye

It seems reasonable to think that the existence of the drawing makes no sense without the viewer who contemplates it. We can even understand the author of the drawing as the reader, since, while the author's intentions end up in private analysis, in a way, the artist has by defini-

Fig. 2. Henry Peach Robinson, Fading Away (1858). Available at: Wikipedia <https://es.wikipedia.org/wiki/File:Henry_Peach_Robinson,_Fading_Away,_1858.jpg> (accessed 2021, May 10).

tion a shared role (author-viewer). In this way, and focusing on the analysis of the work when it has been completed, we can synthesize that the sense of sight –the title of the exquisite collection of essays by the thinker John Berger [Berger 2006]– is the main means of accessing the analysis of paintings in general, and architectural drawings in particular. It is through the eye that we explore the chosen media and begin to traverse it as one who constructs its history and, although through the eye, other senses will be brought into play. As William John Thomas Mitchell argues, "All media are [...] mixed media" [Mitchell 2005, p. 17] or, as Juhani Pallasmaa reminded us a few years later, "I believe that the sensations of touch, temperature, weight, humidity, smell and movement in visual images are as real as visual perception itself" [Pallasmaa 2011, p. 236].

The role of the spectator, thinker or critic of the drawing manifests, on most occasions, in the face of a concrete and specific, particular result. In this way, and following in Paul Klee's footsteps, we must learn to construct a reverse route: "The main disadvantage of the contemplator or reproducer is that he is suddenly placed in front of a result and that only in reverse can he retrace the genesis of the work" [Klee 1976, p. 60]. But, although many critics agree on this point, "Survey is like the reverse elaboration of a project and that performing a survey is like reading the history of a building backwards" [Cundari 2016, p. 94], what we are interested in emphasising now is the active role of the observer, and the importance of the particular narrative that the viewer ends up composing, since it will be, this said 'construction-narrative', different for each of the spectators. The final whole, therefore, will be revealed as a consequence of a particular way of understanding, composing and relating the parts, since "also in the spectator the main activity is temporal" [Klee 1976, p. 60]. In figure 2 we reproduce the photographic composition by Henry Peach Robinson (1830-1901). The Pre-Raphaelite painter produced the first photomontage in history, that is, the first photographic proposal in which different times can be read (depending on the reader) as occurring simultaneously.

Anachronism (or temporal distance)

"Always, before an image, we are before time. [...] how can we keep up with all the times that this image, before us, conjugates on so many levels?" [Didi-Huberman 2000, p. 32]. The words of the thinker Didi-Huberman are particularly relevant to us at this point in our consideration, where we are somehow engaged in establishing the relationship and the kind of connection between the hand one uses to draws, and the eye through which one sees. Both are part of a process in which every drawing is inscribed, and which also involves a temporal positioning: irreversible, categorical and general, when it is a question of the act of creation, and reversible and particular, but conclusive, when it is a question of the reasoning employed to analyze and evaluate.

In the case of the drawing of a city it is not different: as we discussed above, the readings of a drawing are, always and without exception, multiple. And the possibilities of recognition and identification are wide-ranging. See, for example, the beautiful drawing of the city in figure 3 in which the observer can, accompanied by (and thanks to) the great artist, compose an individual (personal and original) image of the urban fact. The anachronism (that ambiguity in a temporal key) is present during the reading and study, the analysis, of the graphics of the territory. Not only because the urban fact itself escapes from a closed or autistic definition of complexity, identifying itself more with a set of parameters, actions and facts, but also because "there is no graphic tool that can give a real perception of this interaction of factors" [Carazo 2016, p. 34].

The disconnection between what is represented (architecture and/or city) and its representation (drawing) will be inevitable: hermeneutics –interpretation– therefore plays an important role in the temporal distance between the hand that draws and the eye that reads. And at this point anachronism becomes the protagonist. Certain issues, at the heart of the debate of what architecture means, will escape representation and therefore the only way to relate them will be through a graphic development that suggests (rather than represents), or that points (rather than identifies). When Robert Smithson speaks of the impossibility of describing or recording part of architectural reality (understood as capacity) he is, precisely, delving into the limits of drawing, of representation and, therefore, into the territory of its interpretation: "We are thinking of architecture's capacity [...] a capacity we can feel and act upon, but cannot necessarily describe or record" [Smithson 1992, p. 5].

Fig. 3. Paul Klee, Revolving house (1921). Available at: Museo Thyssen-Bornemisza <https://www.museothyssen.org/en/collection/artists/klee-paul/revolving-house-1921-183> (accessed 2021, May 10).

Rereadings

"The work of art is born of movement, it is itself fixed movement and is perceived in movement" [Klee 1976, p. 60]. With this (seemingly) innocent sentence Paul Klee introduces the problematic of the temporal as an inseparable part of the two elements on which we have drawn the connecting line. It is "born of movement" (the hand) and "perceived in movement" (the eye). The connection, moreover, is made on the basis of the drawing, which is "fixed movement", that is to say, graphic time. Even the first and most synthetic element of the graphic is understood by the great philosophers as something more than material space: "The point is the minimum temporal form" [Kandinsky 1952, p. 33]. The asymmetry we mentioned at the beginning of our analysis is based on the fact that the hand that creates the drawing is, in a way, irreversibly proposing a drawing, while the eye that reads and constructs the image from it has a less conclusive role and does not leave per se a material trace as the hand does. We call it reversible because it must try to understand and unravel, decode, the ideas behind the drawing starting from the end and, moreover, it can move around the media at will, starting again with each line, each expression, each color.

The results of the rereading are presented as a methodology for understanding and evaluating architectural drawings in which the awareness of anachronism (in the wake of Didi-Huberman) must occupy a central place. Not only in a teaching context (which is also the case) but also in an environment of reflection on the meaning that the authors propose to us with their works, in general. In the same way that the division of the second with the work of Eadweard Muybridge can be related to the importance and scope of the division of the atom [Solnit 2004, p. 7], Didi-Huberman's importance of assuming anachronism as an inherent part of images can be the most evident argument that the pertinence of a study of the hand-eye connection in a temporal key can have for the analysis of the graphic in an architectural environment in which, *a priori* and as we have developed, we could leave to one side.

This tool of analysis, applied during the study of the drawings, helps us to understand and be able to relate more of the ideas proposed by the authors in their works and also to be aware of the omnipresent ambiguity and, therefore, the relativity of our assumptions. David Hock-ney, a paradigmatic example, is currently immersed in the relationship between traditional painting and the study of photography together with digital drawing techniques. Observing his paintings means carrying out reversible exercises through which to make relevant the torrent of ideas that the painter proposes to us. In the words of Oscar Tusquets "these works are not intended to represent an instant but permanence" [Tusquets 2019, p. 75]. Our eye, moving across the canvas (for example, in fig. 4), constructs the meanings that, thanks to the artist, make up the discourse. A room, inside what appears to be a museum, drawn from an elevated position. Three rows of chairs, inhabited by a series of people, are arranged in front of a large horizontal mirror which, faithful to the laws of reflection, reproduces what is in front of it. Our eye, as we have said, travels across the work. The mirror can be read, in reality, as a painting within the painting we are contemplating, in which we cannot help but think what would happen if it could reflect us. But there is, above all, at first sight something very strange: there are people who are repeated, in different places and performing different actions. This makes us understand the whole as a double anachronism (that of the image itself and that created by the artist). Our gaze seems to float, to rise, after understanding the temporal game proposed by the author and the implicit reflection: art as an extension of a territory capable of signifying reality and, at the same time, introducing the temporal (and therefore reversible) freedom that is absent in the world of becoming which we inhabit.

As an example of the application of the theory, three series of images are reproduced below in which we observe the results of the work in a graphic medium after the assumption of the main hypotheses developed, specifically the one that shows the eye as a transforming (and re-transforming, insofar as it is reversible) element of the image that is observed. In this manner, the students of the Master's Degree in Architecture at the University of Alicante generate their own graphic signifiers that have to do with the city, and that consciously position themselves in the face of the multiplicity of gazes and interpretations that they receive.

The first of the series (fig. 5) reproduces diagrams of the city understood as a visual organization of databases. The authors, after fieldwork and the collection of information *in situ*, use computers to create drawings anchored to the present time. The graphics, in this case, are under-
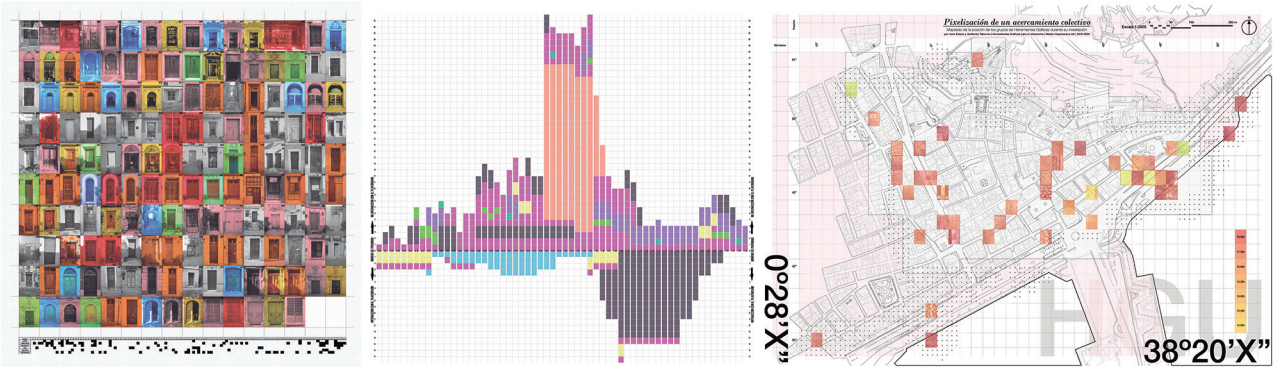
Fig. 4. David Hockney, Pictured Gathering with Mirror (2018). Origin: Ollman 2019.

Fig. 5. From left to right: A. Overlapping of coded doors in the center of Alicante, students: R. Díaz Valera and I. López Aniorte; B. Timeline as a tool to organize territorial information, students: P. López Leiva and D. López Yañez; C. Mapping of a scheduled tour, students: G. Taverner Llácer and I. Esteve Díez.
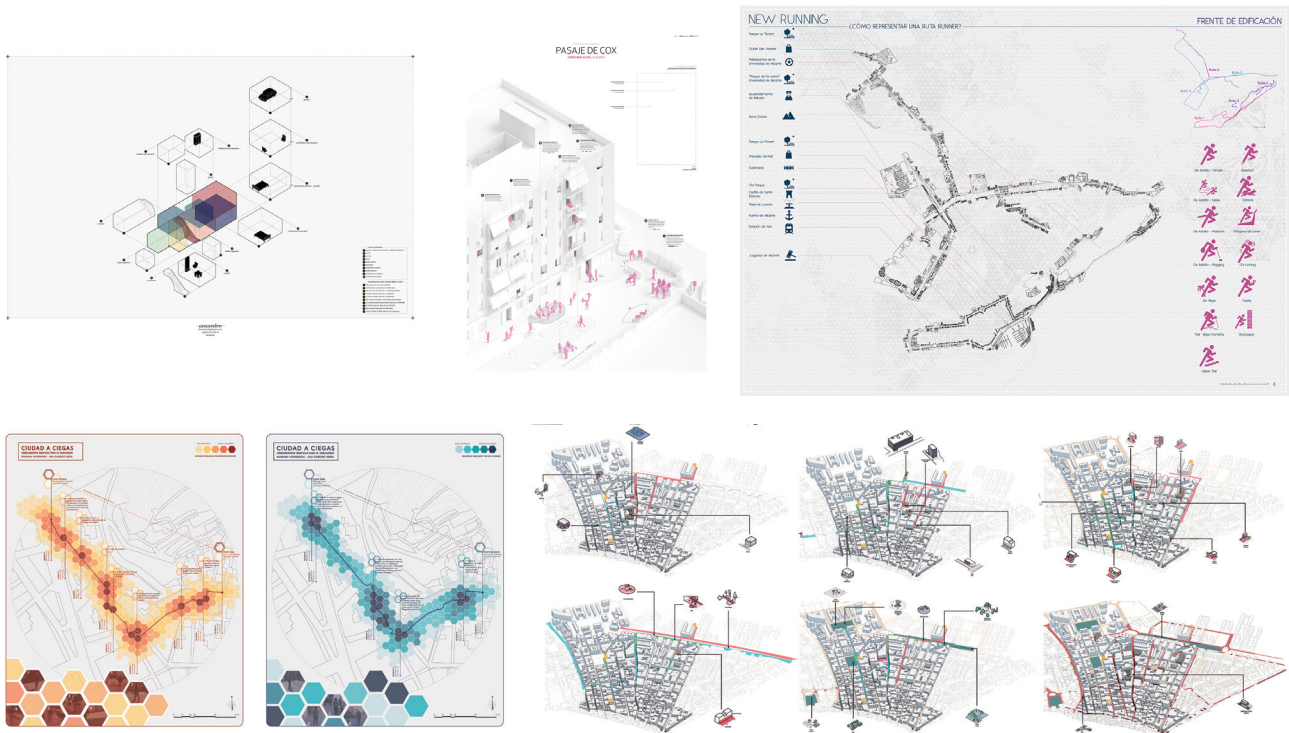
Fig. 6. From left to right: A. Drawing the stories inside a house, student: R. Díaz Valera; B. Overlapping of actions, students: J. Gómez Martínez and K. Marco Pacheco; C. Drawing as a tool to represent actions, student: J. M. Nolasco Vidal.

Fig. 7. From left to right: A. The drawing of the city perceived through different senses of sight, students: A. Garrido Riera and M. Huskinson; B. Sequencing of actions in a neigh-borhood of Alicante, student: J. Sanchis Pérez.

Fig. 8. Tribute to painting Olson's by Andrew Wyeth (1917-2009). Author.

stood as the result of a prior and necessary interaction with the digital information, since in the three examples we are dealing with here the reader is able to select the chosen information intentionally through the computer. Thus, following Mario Carpo's idea that "computers can search faster than humans can sort" [Carpo 2017, p. 48], the visual is understood as a tool that accompanies a thought (that of the reader) still undefined at the moment of creation of the drawing (by the author, in this case the student). It will be the student who ends up drawing, literally, the graphic, according to the student's needs or concerns, but always, of course, within the rules of the game defined at the outset of the exercise.

In the second of the series (fig. 6), the drawing itself is understood as a storehouse of narratives that allow us to transform "what we see into what we read" [Moxey 2013, p. 1]. In this way, anachronism is understood as another possibility: all the information is present simultaneously and it will be the reader, as we have described, who will end up deciding the beginning and the end of a reflection that has yet to be completed, but which is understood to be possible from the very beginning. Thus the drawings present, often based on axonometric or conical perspectives, actions plotted in relation to the architecture and the place where they take place. If the previous diagrams can be understood as more aseptic databases, we can call this type of graphic design of inhabiting that of 'action' (or of the 'happening').

The third of the series (fig. 7) works on the capacity of the image to present itself to us in response "to our desire to last" [Brea 2010, p. 9] as the protagonists of the inhabiting of our cities but, unlike the previous drawings,

to house the specific experience of it. The graphic narrative, in this case, is not consciously multiple but apparently linear: it tells the story of a single, concrete experience. In the first example, after having walked through the city depriving ourselves of the sense of the visual and, in the second, after having done so guided by the citizens themselves, in this case Alicante's citizens. The results are also very interesting because, in the same way that a book or a cinematographic experience contains an organized, patterned and directed sequence, the drawings we obtained allowed this sequential reading but did not prevent (it is not necessary to repeat the reason here) many other constructions and images. In other words, they explicitly opened up a path of graphic investigation.

Connections

Conclusions –the end of the present experience and the beginning of the next– can be summarised as follows:

- by defining the distance between the eye that reads and the hand that draws as temporal, we place the reader in a necessarily active position (by understanding the meaning of the drawing as the result of a positioning, also with respect to the anachronism it proposes). In a graphic and architectural context, then, temporal vision plays as important a role as spatial vision;

- reversibility during reading is the main characteristic that allows one's own (re)considerations about the graphic to be synchronised with those proposed by the great philosphers and critics. This fact is also what allows the explicit assumption and consideration of a path of graphic research in an academic environment;

- irreversibility (during the process of constructing – signifiers that make up the drawing) requires that each graphic be understood as an independent effort to encode a series of ideas and prepare them for a temporal journey that, on most occasions, survives us, or is alien to us, but which always begins with our work of drawing.

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