

WCES 2014

Forget What You Have Learned: Spontaneous Drawing For The Genesis Of Architecture

Juan Serra ^{a*}, Ana Torres ^a, Jorge Llopis ^a, Manolo Giménez ^a,
Ángela García ^a

^a *Escuela Técnica Superior de Arquitectura, Universitat Politècnica de València, C/ Camino de Vera s/n, Valencia 46022, Spain*

Abstract

In the course "Analysis of Architectonic Forms" of the Technical School of Architecture of Valencia, students experiment freehand drawing as a tool for understanding the genesis of architecture and its key elements: geometric composition, proportions, rhythms, spatial organization, function, relationship with the environment, etc. Nevertheless, it is necessary a process of "unlearning", for those who have already internalized the basic fundamentals of drawing and architecture, to be able to propose new architectonic forms not based on logical thinking. To reach so, we point out a number of educational objectives based in concepts (I), processes (II) and attitudes (III), which are supported by the practice of spontaneous drawing and which ultimately result in a more complete training for future architects.

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Selection and peer-review under responsibility of the Organizing Committee of WCES 2014

Keywords: Graphic Expression, Architecture, Formal Analysis, Surrealism

1. Introduction

In the course "Analysis of Architectural Forms" of the Technical School of Architecture of Valencia students experiment with the possibilities of freehand drawing as a tool for understanding the genesis of architecture, and they use the sketch as a strategy to understand its key elements: composition (geometry, proportions, rhythms...), spatial organization, function, relationship with the environment, etc. As stated in the syllabus, the course is based on the acquisition of a graphical language for analysing and expressing the complex phenomena of the architectural forms and spaces generation. So, competences acquired by the student who successfully passes the course, mean mastering three graphic skills:

* Juan Serra. Tel.: 4-987-0987.

E-mail address: juanserralluch@hotmail.com

- *The conception drawing*. That is, the drawing of architecture genesis, which is needed for creative conception.
- *The analysis drawing*, which allows knowing in-depth the already conceived architecture. It gives us an understanding of the formal configuration process and the laws governing the architectural shape.
- *The graphical language*, which are the set of graphical techniques, systems of representation, artistic resources and other expressive means for effectively communicating architectural concepts.

The analysis of architectural forms is performed following a *structuralist* thought, and it consists in the use of drawing for studying the parts of a building and their relationships. So, the competences referred to the *analysis drawing* and to the *graphical language* acquisition are sufficiently supported. However, the ideation or *conception drawing* is something more complex to develop, because students belong to the first year of the degree. Actually, the ideation process is possible when the basics have been settled, both regarding the architecture as an object and the drawing as a means of expression. The *conception drawing* requires a kind of "unlearning" process. We want to set a series of activities that allow students who are familiarized with the basic fundamentals of drawing and architecture, to be able to propose innovative architectural forms based on an illogical or somehow unconscious thought. The goal is also to find an alternative way to analyse those contemporary architectures that do not respond to the *structuralist* method, because they are designed as whole objects, or because they have a final haphazard form. There are contemporary buildings that are hardly understood from purely rational criteria, and that are somehow linked to artistic trends such as *Dada*, *Surrealism* or *Expressionism* (forms of spontaneity and subconscious), which wanted architectural forms to emerge freely, without being modulated by a linear thinking. After a well-articulated learning, we propose the impossible goal of "forgetting what you have learned" and reproducing the conditions in which these forms were generated to understand the creative process that made them possible.

1.1. *The search for an irrational thought in modern and contemporary art*

The architecture critic Montaner (2002) rightly points out that the 20th century has been both the century of reason and dreams. *Organicist* and *Surrealist* artistic movements showed the fortune of the most visionary forms of the subconscious. There were architectural forms that emerged from the dark field of irrational things, from the unveiling and liberation of the unconscious, creating various surrealist traditions (Fig. 1). With the aim of reaching new levels of artistic freedom, *Surrealism* strove for freeing artists from any rational constraint. Brettón (1924) defined *Surrealism* as "a dictation of thought, without the regulatory intervention of reason, which ignores any aesthetic or moral concern". In similar terms, Dalí (1933) gave revolutionary qualities to artistic activities performed in an automatic way: "It would be impossible to insist enough on the extraordinary revolutionary value of the automatism and the major importance of automatic and surrealist texts. (...) They offer us parallel possibilities, resulting from the consciousness that we can acquire from those most developed expressions of the feelings." In addition, this artistic activity that is motivated from the deeper layers of the subconscious is capable of producing great joy. The pursuit of pleasure instinct, based on the abandon of any philosophical concern, is what Magritte (1946) defines as *amentalism* and what qualifies as a valid procedure for developing artistic activity.



Fig 1. (a) Portrait of Mae West, Salvador Dalí, 1934;
 (b) Surrealistic apartment from Mae West painting, Oscar Tusquets, Dali Museum, Figueres.

Dadá is also appointed as one of the avant-garde movements which refused rational thought as an alternative way to reach artistic forms: "*Dadá* means nothing. [...] So *Dadá* was born from a need for independence, from distrust to the community. Those who belong to us remain free. We do not recognize any theory. We are fed up with cubist and futurist academies: laboratories of formal ideas" (Tzara, 1918). This desire for emancipating the hand from the cerebral control affected other pictorial movements like *Tachisme*, or *Action Painting*. However, the subconscious must be strengthened through new experiences, with its analytical and conscious aspect, which ends up giving positive results in a specific moment of the individual's lifetime. Otherwise, the fortunate spontaneity present at a certain time of life may become routine and improvisation.

1.2. Draw to unlearn: an impossible search in university teaching

At university circles, many teachers have proposed various teaching methodologies that enhance a certain process of unlearning to stimulate creativity. So, the Professor of Painting at the Faculty of Fine Arts of the Complutense University of Madrid (UCM), Sánchez-Carralero (2000), in an opportune book entitled "Forget what you learned", states that "it will be more creative the person who, the more he had learned the more he had been able to forget in the moment of creation, what will allow him to go with intuition ahead, but a creative intuition that will have the height at which he had placed the strength of his knowledge and not his ignorance, since ignorance itself is synonymous with slavery" (p. 56). Indeed, that intuitive capacity will be greater, the greater the previous knowledge will be, the "unconscious" experience acquired. The Finnish Professor of Architecture, Pallasmaa (2009), states that there is a real cognitive learning process that can be achieved without the use of reason, and even without the hegemonic triumph of vision over the other senses: "All our senses 'think' and structure our relationship with the world, although we are not usually aware of this perpetual activity. We continually assume that the knowledge resides in verbalized concepts, but any piece of life situation and any significant reaction to that, can and must be recognized as knowledge. Sensory and physical modes of thinking are particularly essential in any artistic phenomenon and creative work" (p. 14). Our particular way of being in the world sets the substrate of our *existential knowledge*. During the years of university teaching, the Professor of Architectural Graphic Expression by UCM, Seguí (2010), lays emphasis on the act of drawing itself, as a process of unconscious learning, out of the standards of representation: "I open my notebook and, with soft instruments, I let my hand slide over it. I just look sideways when my arm and hand gesticulate and move, filling of lines the white surface. I do not copy or think anything precise; I attend the show of this resolute and occasional dance. (...) It is a pleasure to feel the movement and spy on the appearance of the prints that gradually conquered the paper, and superimposed one onto another, marking mysterious densities" (p. 21-22) (Fig. 2). Other teachers in the UCM (Burgaleta, 2013) have related this drawing

style to the concept of *diagram* as defined by Deleuze: "The diagram is essentially manual. Only one unchained hand, freed from its subordination to the visual standpoint, can trace it. It's like making scribbles closing the eyes, as if the hand was no longer guided by the visual data. So, it is a mess! The hand prevails over the eye, violating it. The diagram is a set of lines/spots, that don't constitute a visual form: a set of non-significant lines and a non-differentiated colour. It generates a new relationship between the eye and the hand, a new look." Ultimately these experiences attempt to transcend the clichés of conventional graphic representation, to build an own graphic language to express the architecture. A personal drawing that, as it happens with any other construct of the person, is a project which is not subject to chance, but rather to the unconsciousness. As stated by the philosopher Marina (1992), the creation of *my poetic I* is a personal project itself to reach a *desired and unreal I*, which makes soft or overriding signs to the *real I* that I am. "On that eventful, exciting or pathetic search for the pathway to reach the goal where he had set his heart, he [the artist] spent non-measured hours. Creation is not a formal operation, but biological, vital, exposed to hazards and accidents, prolonged by the desire of a subjectivity that wants to expand its freedom, its domains, its skill" (p. 230).

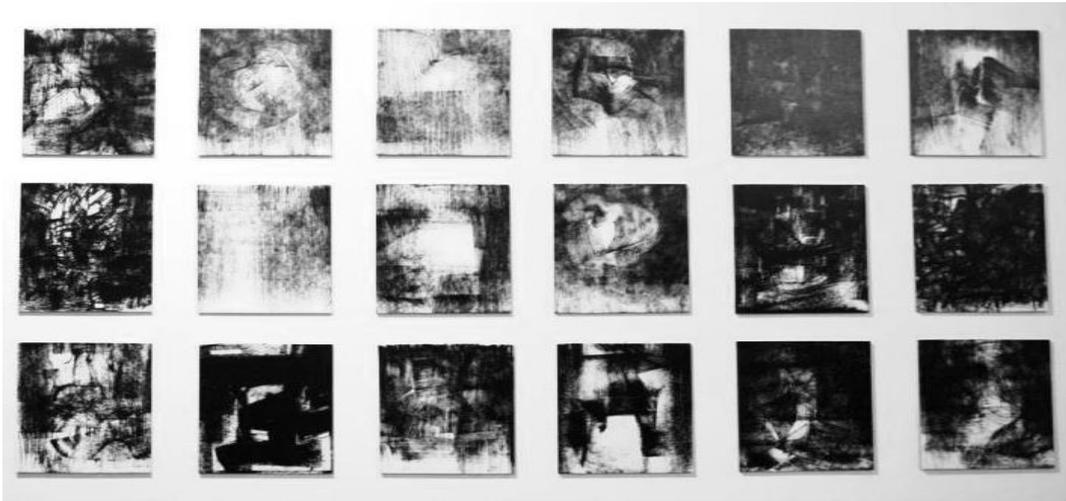


Fig 2. 'Becoming Drawing', Javier Seguí, 2010. Exhibition at the College of Architects of Valencia.

2. Development of Teaching Objectives

The development of educational activities to experiment with the spontaneous and unconscious drawing, allows achieving a number of educational objectives that are important in the training of an architect and that can be grouped into three categories related to the *concepts*, *procedures* and *attitudes* to be developed. The *conceptual objectives* refer to the theoretical contents. In other words, to those ideas which have to be rationally understood and are linked to the above-mentioned artistic proposals. The *procedural objectives* propose specific activities to be developed in the class for achieving the conceptual objectives. That is, they are the means to be employed, the techniques to be experimented, etc. The *attitudinal objectives* refer to the ability that we hope to awaken in the student regarding to the proposed activities. They are broader objectives that are good not only for the analysis of architectural form but also for other topic of the discipline.

2.1. Conceptual objectives

We list some of the theoretical concepts that can be learned after practising the unconscious drawing:

- Recognizing the processes of non-logical thinking as feasible procedures for architecture genesis.
- Knowing certain introspective plastic strategies to find non- stereotyped architectural forms.

- Identifying the search in the subconscious as a method to approach to architecture of the origins (original).
- Linking the unconscious drawing (oneiric, haphazard, paradoxical, etc) with some of the major artistic trends of surrealistic tradition in the 20th century (*Dada*, *Expressionism*, *Tachisme*, *Action Painting*, etc.), that have given valuable results for architecture.
- Recognizing the process of drawing itself as a generator of valid formal suggestions, indifferent to initial preconceptions.
- Identifying the process limitations themselves regarding its particular application to architecture.

2.2. Procedural objectives

The activities that can be developed to achieve these objectives are numerous, and they involve the use of procedures that break with the conventionalism typical of the most traditional drawing, moreover they are inherited from many of the avant-garde movements with surrealist tradition.

- Practising the drawing as a simple friendly dance by the hand, without formal references.
- Drawing with certain conditions that facilitate spontaneity: drawing in the dark; drawing with the left hand; drawing “to the diktat” of another person, drawing over another person’s drawing, etc.
- Drawing a building as a *cadavre exquis*, that is, following the Surrealistic technique of cooperative work in which each member does not see the work of others and that generates collectively and unexpected organisms.
- Drawing with a certain emotional state, trying to show the mark that reality has printed on the individual (Expressionism).

However we think that getting spontaneous forms does not have an absolute interest in the training of an architect. The procedures for obtaining forms in an unconscious way, must be complemented with activities that involve a rational thinking, which involve providing function, structural capacity and meaning to these forms, and that ultimately become germ of architectures worthy of being called as such. The unconscious forms should be considered only a starting point and not an end in themselves, as Leonardo da Vinci himself did with the stains on the walls to stimulate his creative imagination.

So we can point out another set of procedures that involve a conscious exercise of drawing and thinking, but which start of spontaneous or unconscious forms:

- Transforming a spontaneous drawing into the representation of an imagined architecture section.
- Transforming any object, in the style of the Dadaist *Object Troubé*, into a possible architecture with a certain functional program (Fig. 3).

2.3. Attitudinal objectives

The attitudes that can be learned with the practice of unconscious drawing are particularly interesting in forging the professional profile of the future architect, and they probably constitute the teaching objectives with greatest interest among those marked before, as they allow:

- Assuming naturally the uncertainty inherent in any process of artistic creation, including architecture projects. Learning to coexist with the doubt. Facing the unexpected with joy and not with fear. Overcoming the fear of the *blank sheet*.
- Developing a flexible thought to recognize the valuable findings that have occurred in an uncontrolled way and incorporate them into the work process beyond aprioristic preconceptions. Being opened to the unexpected.
- Motivating a thought that questions the excess of rationalism and the mass production.

- Experiencing the drawing as a means of liberation from the constraints of the individual and as a possible way to grow freedom.
- Enjoy the joy of the drawing activity.

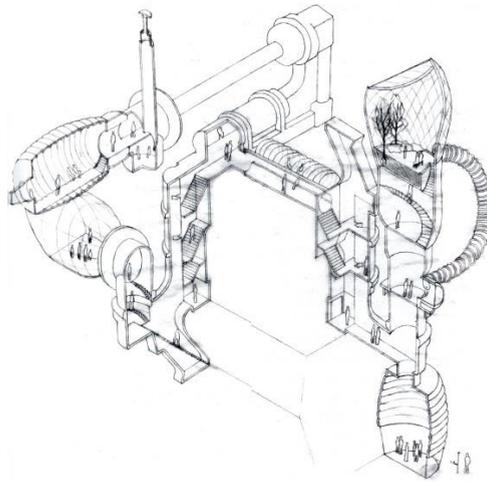


Fig 3. (a) Isometric section of the space created when a gun is increased, Hwui Zhi Cheng, Faraz Anoushahpour, Lap Heng Fung, Architectural Association, London, 2008.

3. Implementation

In recent years, the course “Analysis of Architectural Forms” has developed a series of intensive workshops of creative experimentation, which have implemented the activities mentioned above, and whose teaching results, although difficult to assess from the point of view of the achievement of some productive abilities, do have reinforced a supplementary training with favourable results, especially in terms of attitudes. We especially want to emphasize the workshop conducted on November the 5th, 2010, which was attended by Professor Seguí. The activities included a lecture in which the Professor showed the work he has made in the university during his long professional career. He exhibited the interest that automatic and spontaneous drawing has as a method of graphic and creative exploration, and he invited students to participate, to draw with him. After that, students practised the unconscious drawing in the lecture hall. The Professor task was deactivating any sign of rational intervention during the execution of this graphic dance. It is a truly difficult task that involves renouncing all critical, sensible with the results being obtained, denying any trace of figuration or organization of a compositional order. The workshop was completed with the opening of an exhibition about Professor Seguí’s personal drawings. The results of the mentioned workshop cannot be evaluated exclusively from a material point of view, but rather from the whole of attitudes aroused in the students, which were expressed at the end of the activity. In most cases, from an initial feeling of fear or risk, students passed, with some incredulity, to experience a truly enjoyment of the act of drawing, surprising themselves, and recognizing themselves in their own ability for graphic expression.

4. Conclusions

In the course "Analysis of Architectural Forms" of the Technical School of Architecture of Valencia (ETSAV) students acquire abilities related to three graphic skills: the *analysis drawing*, *conception drawing* and the acquisition of a *graphical language*. Between those, *conception drawing* is susceptible to a certain process of "unlearning", so that, once students have internalized the basic fundamentals of drawing and architecture, they are able to propose new forms based on an unconscious thought. This methodology is supported by creations of art movements such as *Surrealism* or *Dadá*, and by college experiences directed by some professors such as Seguí(2010) or Pallasmaa (2009) among others. It seeks to transcend the clichés of conventional graphic

representation, to stimulate the *conception drawing* in students who have already internalized the basic fundamentals of graphic expression and architecture. We have set a series of learning objectives grouped into three categories, related to *concepts*, *procedures* and *attitudes* to be developed. After different experiences developed at ETSAV, we observed that the practice of unconscious drawing is especially valuable with regard to arousing certain attitudes in the professional profile of the future architect. Beyond the final material result, it helps to naturally assume the uncertainty inherent in any process of artistic creation, and it reinforces the enjoyment of the act of drawing itself, among others aspects. This process of *unlearning* is not haphazard but rather unconscious, and it allows emerging the graphic learning (analytical and conscious), which is the student's background transformed in a fortunate spontaneity, because otherwise it would be mere routine or improvisation. A learning which ultimately reaches the architect's whole lifetime, which is fed on his daily life experiences and allows him to get his own graphic language in which he recognizes himself.

References

- Brettón, A. (1924). Primer Manifiesto del Surrealismo. In A. González –García, F. Calvo- Serraller & S. Marchán Fiz (Eds.) *Escritos de arte de vanguardia 1900/1945* (pp. 399-400). Madrid: Istmo, 1999.
- Burgaleta, P. (2013). Marco Teórico General. Retrieved from: <http://barrachunky.wordpress.com/marco-teorico/>.
- Dalí, S (1933). Nuevas consideraciones generales sobre el mecanismo del fenómeno paranoico desde el punto de vista surrealista. In A. González –García, F. Calvo- Serraller & S. Marchán Fiz (Eds.) *Escritos de arte de vanguardia 1900/1945* (pp. 443-444). Madrid: Istmo, 1999.
- Magritte, R (1946). Manifiesto del amentalismo, 1946. In A. González –García, F. Calvo- Serraller & S. Marchán Fiz (Eds.) *Escritos de arte de vanguardia 1900/1945* (pp. 501-502). Madrid: Istmo,1999.
- Marina, J.A. (1992). *Teoría de la Inteligencia Creadora*, Madrid: Anagrama.
- Montaner, J.M. (2002). *Las formas del s XX*, Barcelona: GG.
- Pallasmaa, J. (2009). *The thinking Hand: Existencial and Embodied Wisdom in Architecture*, Helsinki: Wiley, 13-15.
- Sánchez-Carralero, J. (2000). *Olvidar lo aprendido*. Ávila (Spain): Consejería de Educación y Cultura de la Junta de Castilla y León.
- Seguí, J. (2010). *Ser Dibujo*, Madrid: Escuela Técnica Superior de Arquitectura.
- Tzara, T (1918). Manifiesto Dadá. In A. González –García, F. Calvo- Serraller & S. Marchán Fiz (Eds.) *Escritos de arte de vanguardia 1900/1945* (pp. 192-193). Madrid: Istmo, 1999.