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Questioning Drawing for Designers: Project work as a strategy and examples from the practice

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Changes in paradigm education and skills necessary in the interconnected global culture

Anyone nowadays in the education area is challenged by continuous changes occurring rapidly in society with great repercussions in the academic curricula, programmes and methodologies. This situation has triggered an intense debate in all the areas of education including the field of art and design. As stated by Karlsson (2003:3) in *Reflections* from the 2003 OECD seminar:

“Art schools today are facing many challenges. Like other higher education institutions, art schools are confronted with problems related to competition, funding, research, internationalization, quality assessment, to name just a few. Particular for art schools is the specialist nature of their activities, which means they face additional issues”

Karlsson argues, when summarizing conclusions of the seminar that the main underlying theme is the art schools relationship with society or “their own identity in relation to a continually changing environment”. By this he means the difficult balance arts schools must deal with their usual traditional autonomy and artistic freedom (the preservation of free-thinking, creativity and the mission to criticize society through art) and pressures demanded by society and particularly the market on higher education to contribute to economic recovery and growth. Another important aspect and hot subject today related to art design courses is research. There is increasing recognition that it is fundamental not only to get a status like other traditional areas but especially because knowledge got from research is fundamental to the development of any area.

In generic terms, in this environment characterized by “turbulence”, the Bologna process argues that education should move to a paradigm shift that stresses long life learning skills instead of acquisition of traditional knowledge. According to Norman (2001) the paradigm shift needed includes transformations in the educational process that range from: Instruction to construction (the reinforcing of making and doing in a way related to personal interests and needs that make the learning experience memorable); from linear to hypermedia; from teacher centred to learning centred (empowering students to take responsibility of their learning process and outcomes); from absorbing material to learning to learn; from teachers as transmitters to teachers as facilitators; from learning to school to learning for life (involving skills needed to relearn



continuously). Much quoted in this respect is Alvin Tofler expression (in Reid 2003): “The illiterate of the 21st century will not be those who cannot read and write but those who cannot learn unlearn and relearn”; from just verbal and textual communication to visual communication (communicate effectively through the visual medium).

Design occupies a very specific position because it is an area that uses different modes of reasoning such as rational, scientific, creative and subjective. Lawson (1990) defines design as “a process of change an activity done not only to reach circumstances that change but to change these circumstances by the nature of the products created”. He explains that a designer uses art but his work is different in the nature of processes from the artistic one, uses technology but he is not a scientist and sociology not being a sociologist. Combining functional and beautiful, designers work for people producing objects, images and systems that should contribute to quality of life.

When talking of designer skills needed in nowadays society aspects such as creativity and innovation, constant relearning, and critical awareness and capacity of working in teams are enhanced. For example, Flint, in Lloyd (1994:72) talks about the future designer as a “catalyst for change- organizing the creative process, developing concepts and working in teams of specialists” adding further, that “the convergence of information and communication technologies highlights no longer what you know but how you ask questions”. On the same line of reasoning, Reid (2003) based on recent investigation in the field, states that employers look especially for creative individuals with new ideas, defining such profile as risk-takers, lateral thinkers and creative problem solvers with qualities for communications, teamwork, research, critical awareness and self-development. From the debate on implications of global information society in design education Tschimell (2003) summarizes it as development of intellectual and creative flexibility, integral and creative thinking criticism and capacity of responsiveness.

Configurations and contributes of drawing in design education: a tool for thinking, creativity, self expression and communication

There are in literature many texts, references and reflections about the role and importance of drawing in education through the development of fundamental skills. Aspects related to the development of visual intelligence and literacy, creativity, drawing as a tool for thinking and problem solving, drawing as a mean of self-expression and communication are at stake. In spite of a common idea that drawing and art have a mysterious side, which cannot be revealed, much investigation has been carried out recently in order to understand the way it works in the creative domain and for the purpose of problem solving. Several empirical works and reviews have been conducted in the area such as Garner (1989), Purcell and Gero (1998) Goldsmith (1991), Do and Gross (1996), Lawson (1990) to name some few.

Being an effective way of learning to see by the enhancement of perception, drawing has always been considered an important tool to better understand the world and giving it a personal meaning. Through the promotion of capacities of observation, analysis, selection, comprehension, memory and judgment, drawing contributes to visual intelligence and perceptual awareness. Matisse used the phrase studying through drawing.



Drawing is also portrayed as a powerful instrument of creativity helping to stimulate the right side of the brain (perceptive, non verbal, intuitive, interpretive) essential to creativity and working in pair with the left side (verbal, linear, sequential, logical (Edwards 1970). Powell in Garner (1989:45) states: "One is a more creative person if you can draw because you have this conversation with yourself, you can express your ideas to others, and you can organize your thoughts better". Garner (1989) concludes based on case studies that drawing appears to facilitate creativity in the most fundamental sense since it develops capacities associated to imagination, intuition, visual and spatial thinking. It is much accepted that it is especially during the first phases of sketching that drawing has a central role in creativity in design activities. It seems that "denseness" and "ambiguity" of freehand sketches allow multiple interpretations and identification of problems stimulating new design alternatives. There is a clarification of concepts through sketching in the ideation phase that by allowing an evaluation provokes the exploration of new ideas. According to Do and Gross (1996) through the act of drawing and looking designers find visual analogies, remember relevant examples, discover new shapes in previously unrecognized geometric configurations in their sketches. Purcell and Gero (1998) on a huge review of the role of drawing in design argue that sketch seems to be relevant in the first phases of conceptualization whereas forms of more structured drawings are used in phases of refinement and detail. Drawing as a tool for thinking, exploration of ideas and manipulation of information has an important role in the comprehension of ill defined problems (Garner 1989). Problems emerge in pair with solutions in the design process through drawing (Lawson 1990). Arguing that drawing seems to support design reasoning, Duff (2005:2) states:

"Drawing helps to solve problems, to think and develop the end result. This may be the combination and juxtaposition of colours for the composition of a painting, design of a mass-product jug or textile, visualization for a children's book or a description of how to do something".

Mapping drawing as a discipline in design courses

When programming for drawing classes we found ourselves confronted with several questions related to the purposes and driving forces of a discipline like drawing today in the course of design, especially the need to stimulate and embed creative thinking, tackle contents of programmes with the development of fundamental skills and of course the problematic raised by the technological revolution, meaning the existence of computer drawing programs.

We adopt the attitude that drawing programmes and related activities should be differently adapted to different courses arguing that drawing can be used at the service of future designers to develop creativity, intuition, motivation to challenge environment, reflect on changes, create and develop new visions. We contend as Chaet, in Molina (2001) that drawing is not a simple technique, most and foremost it is the personal election of a graphic language appropriated to satisfy the needs of a particular concept. We consider techniques as tools at the service of ideas and emotions one wants to express and not ends by themselves. Good grammar is not enough to write a good story, more important is the interest and complexity of ideas at stake.

The question posed by Duff (2005) if we can think about drawing in the same way we thought 20 or 30 years ago is relevant and we agree with him that it is not possible especially because there is now in the words of



Mealing (2002) a new grammar and syntax created by the new technologies, interacting. As any other human activity drawing is dynamic reflecting conditions and costumes of its own time. Each time has its own language. Apparently, nowadays, it seems to be an eclectic one, privileging diversity where classical barriers in specific domains are being blurred, where low and high technology can coexist.

The increasingly dominant force of digital technologies in our society impedes attitudes of ignorance or indifference. As stated by Mealing (2002: 5) “the very existence of computer drawing systems provoked some of most stimulating questions of our time” related to creativity, consciousness, art, new aesthetics, directions and destinations. Computers are responsible for new ways in which designers think about their practices, becoming quickly essential tools of designing and production (Allison 1994). The results express quite well the situation, since the fingertips of new technologies can be recognized everywhere in the man made world from objects to architecture and graphic representations. With computer drawing programs there are many people questioning the need to develop drawing skills this having an impact in the discipline of drawing. However, research in the area shows that classic drawing has to play a relevant role in the profession of designers and still is the privileged, the quickest and cheapest language for designers. Findings from a study just using graphic designers (Schenk, n.d.), show that they need to develop the ability of using drawing because it is on the basis of a several designerly tasks from managerial tasks to creative activities and control production.

In spite of the impact of computers, the reasons for drawing are still the same: develop visual literacy and visual intelligence, a way of better understanding the world and the self (having access to unconscious manifestations), thinking and problem solving, express and communicate ideas, feelings and emotions and develop creativity. We consider very important that students at this level recognize and reflect on the differences between analogical and digital drawing and incorporate in their practice “that computer is useful only at the extent that it supports the drawing enterprise” (Whale 2002:30). We argue that students must consider that the essential of a creative process does not lie in the means used but in conception and ideation. Drawing is structuring analogies independently of the tools used (Carneiro 2001). In fine arts as Deal (2003:35) points out, stating the blurring of disciplines in arts and the need for interdependent teams in professional life: “the materials used and means of production are often secondary to conceptual and contextual concerns and artists move freely from one medium to another”. Students must be taught that what matters above all are the ideas, so well argued in this quotation from Smith (2002:132):

“If you have a really good art idea it’s new and incredible and powerful in the oil on canvas or distributed by Internet. A bad idea, on the other hand, will not be saved by all the thé in China, be it ever so technologically advanced”.

The introduction of new technologies has always brought troubles but also new opportunities. We need to take advantage of new technologies enlarging and re-interpreting the field of drawing. We argued elsewhere (Vasconcelos & Elias 2005) that drawing will benefit as an “Expanded field” (based on Rosalind Krauss (1979) concepts) where the usual format is enlarged to encompass different “corporalities”. We share the vision that drawing does not stop in the means used but in the capacity of organizing its data to create a meaning (Molina 2002). Computers and new digital technologies cannot be forgotten nor even considered a threat to classical drawing. Digital and analogical drawing can benefit from each other and this cooperation can enrich both



areas. They can be considered a relevant tool for investigation, expanding the field of drawing to a new set of possibilities as well as questioning and shedding light to the very process of drawing. As photography cinema or video did not kill painting or drawing the same will happen with digital media. The essential of a drawing process remains and is very well synthesised by Petherbridge (1992:18) as: “a serial process of finding, refining, reformulating, questioning and constructing”.

Project work through drawing: Experiencing space - the garden and the neighbourhood

Within the ideas above expressed we tried to find a strategy that could encompass and articulate skills for designers and challenges of education nowadays with drawing potential and capacities. Within the views above exposed, we argue that project work in drawing can be a promising methodology to apply. Project work is intended here as a strategy that displaces the attention just on final results to focus and enhance the dynamic evolving process on the basis of results. It can have the capacity to contribute more effectively to design education taking the most of drawing potential, making the learning experience memorable, expanding the field of drawing through research and experimentation. Diagram 1 presents the way we used project work as a strategy in drawing classes. We will depict through examples of practice and student’s drawings some of the exercises proposed and methods used during two semesters of drawing classes, corresponding to the fourth year of the discipline of drawing in the course of design. We elect some objectives to tackle within the programme:

- Development of creative capacities and imagination – expand the field of drawing to benefit from other areas such as photography, cinema, video, literature, science (cross fertilization)
- Consider research an attitude on the basis of fundamental choices, exploring a vast amount of ideas, concepts and techniques which could support individual approaches
- Using the very base of the design process through project work applied to drawing. Problem resolution – contact with reality questioning and changing it for the best. Develop critical thinking and personal reflection. Encourage development of individual personalities and styles with capacities to challenge the *status quo*

The main purpose at this level (defined in the approved programme) is to study and understand space and its relationship with man and human activities. Both product and graphic design involve a relevant spatial component, which should be developed and synthesized by the use of imagery. Spatial relationships and the qualities of different spaces should be experienced in order to broaden comprehension of space and enlargement of visual vocabulary. The first classes were directed to the revision of concepts of perspective and problems of representation. Then two different spaces were chosen to work: a botanical garden and an old busy neighbourhood in downtown city of Lisbon. The work with the garden involves 3 stages:

1) Representation through speculative drawing of a “path” in an idealized garden. It is just given to students a site plan of a garden in its abstract generic forms they cannot recognize and where they should highlight a path to be represented. This representation should also illustrate the metaphor “escape” and “permanence” corresponding to two opposite attitudes and poetical approaches to space. The brief asked for a visual “dictionary”, a story board and the presentation of 10 drawings A3 for the “escape” path and 10 more for the “permanence” one.



The incorporation of abstract ideas from other fields, exercises creative thinking and seeks to develop thinking processes, encourage students to see things from different perspectives as well as, in this case enhance sensorial awareness. Research is required in several aspects such as types of gardens, vegetation and constructed elements, atmosphere, the way people use gardens. Research is also required for the representation of sensations such as calm, peace versus movement, anxiety, drama, corresponding to different visual languages. Slides with the history of gardens were presented as well as some parts of films. We choose extracts of *Blow-up*, *Pleasant Ville*, *Blair Witch Project*, *Run Lola Run*, *Tren de Sombras* which could be associated to sensations of “escape and permanence” expressed through different points of view (stable, dynamic, perspective effects, zoom effects, different plots). Students were stimulated to construct a “dictionary” through the selection of images and graphic experimentation (form, marks textures, light, and colours) to elect a personal language to express these feelings. Gerard Richter “Atlas” (Blazwick & Graham 2003) was given as an example of collecting data through images with a purpose. It was also suggested the importance of reaching back into their memories to find inspiration as well as observing people behaviours, moods and experiencing themselves different situations. Sketching was used intensively for the story-board as well as to portray different emotions.

2. The same “path” used in speculative drawing will then be depicted in confrontation with the real garden, through observational drawing, trying to be conscious and register what is really there. They were asked to make a reflection on differences in speculative and observational drawings.

3. The last part of this work asks students an intervention in the real garden, which qualities and characteristics they know now so well. It is proposed to them to use their designerly skills not only to ask questions and find problems but also as problem solvers in a real context. The interventions could assume the form of proposals of objects to improve any aspect of the garden or to promote its image, or speculative visionary interventions reflecting relationship nature/man (projects for illustration of stories, sculptures, video, or site specific installations).

The second exercise dealing with neighbourhood has two stages

1. The first one is dedicated to understand and explore through drawing several aspects of this urban space: architecture, activities, people, and atmospheres using life drawing. Some classes are reserved to sketch and draw on the place with specific exercises in order to enlarge visual vocabulary such as: skyline drawings, representation through vertical lines, depict recession just using street signals and urban elements, studies of colour, sketching of people in their activities and more finished drawings.

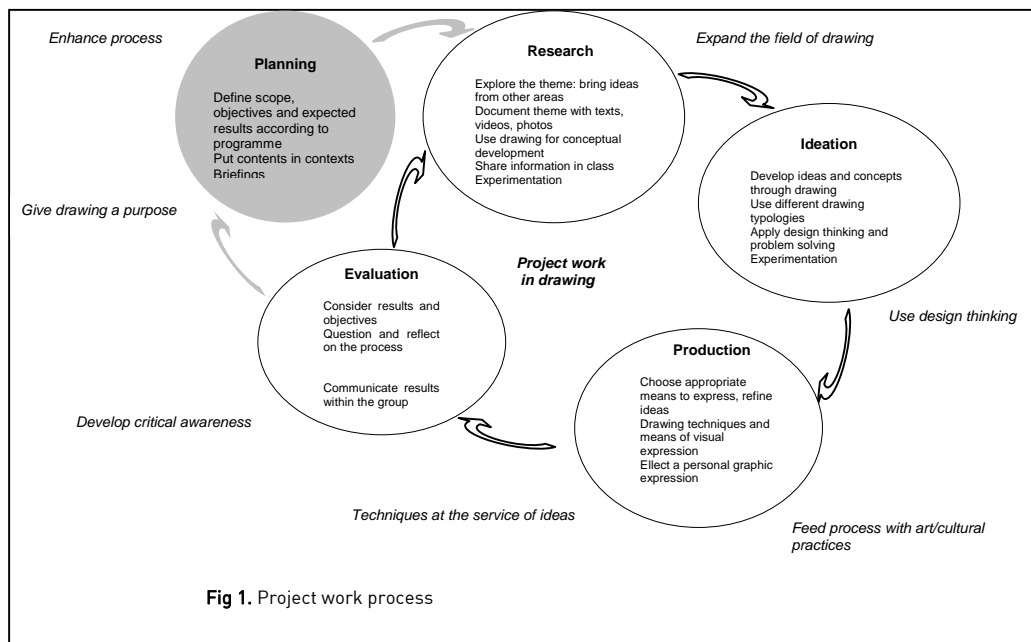
2. The second stage begins with a theoretical approach, where several art/cultural practices are reviewed, summarized and its main concepts debated. Cubism, Dadaism, Surrealism, Futurism, Situationism were chosen since they have theorized, represented and experienced the concept of space in different ways and some of them the fruition of the urban space in quite revolutionary views. Careri (2002) framework considering walking as a critical tool and as an aesthetic practice was very useful. Based on Careri (2002) we presented concepts of the banal city of Dadaists, the unconscious and oniric city of the Surrealists (in opposition to the



hypertechnological utopias of Futurism), and the playful and nomadic city of the Situationists. Students are then asked to portray the neighbourhood studied through the eyes of one of these approaches. The intention is to stick essentially to relevant concepts and not only to aspects of representations. This corresponds again to the creative process of translation, to incorporate ideas, in this case from the world of art/cultural experiences into their own work, transcending borderlines of disciplines. Knowledge on these relevant paradigms in the history of contemporary culture enlarges their perspectives and facilitates the appearance of new proposals and tendencies. To contextualize and re-contextualize those practices through a reflexive attitude represents new possible approaches to innovative proposals. This means to incite students to go beyond just technical responses to design and consider the importance of conceptual frameworks in their work. In both exercises they used conventional drawing techniques (sketching, life-drawing) and mixed media (collage, analogical and digital drawing, printing, painting, and 3D modelling) for both the intervention in the garden and final presentation of the neighbourhood work. Students are encouraged through experimentation to look for the best means and techniques to express ideas and concepts.

Conclusions

Design is an integrative activity which operates across a variety of different disciplines and areas. Drawing is just one discipline in our design education curricula, although relevant due to its very potential to contribute to the very design thinking. We found that drawing through project work with an expanded field seems to have the potential to perform well in the development of capacities needed for the profession of design nowadays. This strategy tries to make a balance between the traditional role of drawing (depicted in manuals we consider essential for its operability) while opening other possibilities by enlarging its field, bringing the contribution of other areas, encouraging research and the creative coexistence of low and high technology through experimentation. Project work applied to drawing works as a broad umbrella that gives drawing a purpose. Project work questions drawing for designers, tries to stimulate creativity, research, visual thinking, putting at the same time drawing contents within contexts, using the very design thinking. As future problem solvers students need to develop creative self expression, visual intelligence but also feel that approaches taken must be rooted conceptually and not arbitrarily. The exercises above depicted are simply examples of the way we envisaged the programme approved for the fourth year of drawing discipline - the relationship man and space. However, we think project work enlarging the field of drawing can be applied with benefits to any other drawing programme contents. With the Bologna process the structure of design courses has been changed in order to reduce the duration of general courses and enhance research (masters and PhDs) this being according to project work philosophy.



Bibliography

- ALLISON, B. (1994) Research in art & design in the United Kingdom. In *Higher Education Review* Vol 26 N° 2 pp 49-64
- BLAZWICK, I & GRAHAM, J. (2003) *Gerhard Richter, Atlas the Reader*. London: Whitechapel
- CARERI, F. (2002) *Walkscapes: walking as an aesthetic practice*. Barcelona: Gustavo Gili
- CARNEIRO, A. (2001) O Desenho Projecto de Pessoa. In FPCEP, *Os Desenhos do Desenho nas Novas Perspectivas do Ensino Artístico*, pp 34-38. Porto: Universidade do Porto
- DEAL, J. (2003) Tradition and Change – Conflict and Opportunity. In Proceedings from the OECD seminar “Managing Arts School Today” Paris 28 -29 August 2003
- DO, E. & GROSS. M. D. (1996) Drawing as a means to design reasoning, Paper presented at Design 96 Workshop on Visual Representation, Reasoning and Interaction in Design, Palo Alto, CA. (1996)
- DUFF, L. (2005) Introduction. In DUFF, L. & DAVIES, J. (ed) (2005) *Drawing – The Process* pp 2-3. UK: Intellect Books
- EDWARDS, B. (1970) *Drawing on the Artist Within: How to release Your Hidden Creativity*. New York: Harper Collins
- GARNER, S. W. (1989) Drawing and Designing: Exploration and Manipulation Through Two-Dimensional Modelling. In *Dater* 1989 pp 43-50



- GOLDSMITH, G. (1992) The Dialectics of sketching. In *Design Studies* Vol 4 pp123-143
- KARLSSON, H. (2003) Managing Arts Schools Today - Reflections from the OECD seminar. In Proceedings from the OECD seminar "Managing Arts School Today" Paris 28 -29 August 2003
- KRAUSS, R. (1979) Sculpture in the Expanded Field. In *October*, Spring 1979, n° 8, pp 30-44
- LAWSON, B (1990) (2nd ed) *How Designers Think*. Oxford Butterworth Architecture
- LLOYD, M. (1994) The culture of connectedness. In *IDATER*, 1994, pp 70-73 Loughborough University of Technology
- MEALING, S. (2002) On Drawing a circle. In *Computers & Art*. Mealing, S. (2002) (ed) (2nd ed) pp7-15. UK: Intellect Books
- NORMAN, J. (2001) Design as a framework for innovative thinking and learning: how can design thinking reform education?. In *IDATER* 2001, pp 90-99, Loughborough University
- MOLINA, J. J. G. & CABEZAS, L. & BORDES, J. (2001). *El Manual de Dibujo: Estrategias de Su Enseñanza en el Siglo XX*. Madrid: Cátedra
- MOLINA, J. J. G. (2002) Máquinas de dibujar: territorios y escenarios del dibujo. In Molina, J. J. G. (2002) (coord) *Máquinas y Herramientas del Dibujo* pp15-80. Madrid: Cátedra
- PETHERBRIDGE, D. (1992) Comment: Drawing Conclusions. In *Crafts*, March/April 1992, pp 18-19
- PURCEL, A. T. & GERO, J. S. (1998) Drawings and the design process. In *Design Studies* 19 pp 389-430. GB: Elsevier
- REID, S. (2003) A Response to Joe Dael's Presentation. In Proceedings from the OECD seminar "Managing Arts School Today" Paris 28 -29 August 2003
- SCHENK, P. (n.d.) The Changing role of drawing with specific reference to the graphic design process
- SIMÕES, S. (2002) O Desenho na Era Digital. In *Margens e Confluências: um olhar contemporâneo sobre as Artes*, n° 4
- SMITH, B. R. (2002) (2nd ed) Post-modern art, or: Virtual reality as Trojan donkey, or: Horsetail tartan literature groin art. In Mealing, S. (2002) (ed) (2nd ed) *Computers and art*, pp127-142. UK, Bristol: Intellect
- TSCHIMEL, K. (2003) O Pensamento Criativo em Design: Reflexões acerca da Formação do Designer. In *Catálogo do Congresso Internacional de Design USE(R)*, 29.03.03, Lisboa
- VASCONCELOS, M & ELIAS, H. (2005) O Campo Expandido do Desenho e Suas Práticas Criativas. In *Caleidoscópio* (in printing). Lisboa: Universidade Lusófona
- WHALE, J. (2002) (2nd ed) Why use computers to make drawings? In Mealing (2002) (ed) (2nd ed) *Computers & Art*, pp17-32. UK: Intellect Book