The Digital Media and New Technologies in Visual Arts Studio

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This studio dealt with the integration of Digital Media in both the Artistic-Creative and Teaching-Learning processes. The studio combines satellite and present classes during two months of intensive work, with an additional year of work via internet. We obtained successful results as measured by higher levels of knowledge acquisition and the development of perceptual skills. Those results were achieved despite noteworthy limitations in quantity and quality of electronic equipment available. This experience may be particularly important to people working in developing countries and/or in the area between visual arts and architecture.

Keywords: Art; Studio; Media; Digital; Analog
1. Introduction

This paper presents the pedagogic experience of a course in the Visual Arts Bachelor Degree Program offered by the Facultad de Arquitectura Diseño y Urbanismo at the Universidad Nacional del Litoral, Santa Fe, Argentina. The class was taught using a combination of present and semi-present attendance through the Distance Education Multimedia Center (CEMED), and with the support of the Education Multimedia and Didactic Device Laboratory (LIDEM), belonging to the said institution. The pedagogic model and the didactic system included a broad range of resources based in different communication modalities. These resources were deployed to support distance learning as well as satisfy particular educational objectives and content, which are defined in the theoretical and practical discussion below.

2. Development of the Pedagogic Model

The methodology of satellite classes, and the use of different media in a studio constituted a novel experience for the region and Argentina. The classes were taught in satellite classrooms distributed in forty cities in eight different Argentinean provinces. The studio and the content were introduced in the satellite classrooms, whereas the present classes were dedicated to the analog-digital workshop.

Figure 1 shows the distribution of the cities where the classes were transmitted, which made possible the integration of people physically distant from the centers of study. In the places where adequate connections were not available, videos and CDs with a copy of the website were distributed [1]. This material contained most of the content, exercises, tutorials and examples. Then, through telephone connections, the participants could really get to the university’s virtual campus [2]. The different organizing aspects such as mail or chat inquiries, the handing in of exercises and the remaining administrative management, were fulfilled by those means. Additionally, some printed material of the theory classes was provided. This was suggested by the academic coordinators of the Program and requested by some students, who considered it more suitable to read them in paper. These texts were mainly of difficult accessibility and were added to the general bibliography.
The pedagogic system allowed students to work with the bibliography, after the introductory and theory classes, interpreting and conceptualizing as they work on the final presentation. The students, forty per year, were adults, some with little computer knowledge, and others who had been recently initiated in digital media by an introductory course. Paradoxically, this very lack of experience in the use of the digital media was what was going to produce the strong conceptual and artistic output of the studio, which more than compensated from any demonstrated technical weaknesses. This is almost the opposite of what happens in the regular courses at the University, where it is common to find expert operators with psycho-motor training. Traditionally, young students handle very well great volumes of data and the technicalities of hardware and software, but tend to fall trapped into the last novelties of the media.

Our intention for the course was to offer participants a point of view for reflection and practice, providing basic instruments for approaching the new artistic opportunities of Art in the Internet. In addition, we asked students to integrate and personalize these electronic tools in their individual productions, while generating an internal and external debate and positioning regarding the new media and the information society. The acceptance and the results of this suggestion would be connected to the way each student would find the relation between their experience with this production and their expectations. The class participants were artists and art professors, who were used to express their thoughts, ideas and concepts in paper, paint, metal or wood. This situation impacted the final production of the studio as the work came out in different media encompassing analog videos, digital collages, printings, etc.

One aspect to highlight is that the students in the satellite classes, who did not have a frequent contact with the professors, replaced the discussions and critics with emails. Although central to this pedagogic project, we must confess that we over estimated the power of long distance communication to support our pedagogic goals. This was due to the lack of previous experience. A particular burden for faculty was their having to substantially modify their discourse in order to provide criticism of exercises over email. For the criticism of exercises, the elaboration of a scheme with the objectives and phases was of high contribution, and it was required a more systematic thought on the proposed exercises. The systematic nature of the exercise is not common in the artistic disciplines, in particular because the coherence of any criticism makes sense in different bands of redundancy of communication, by question and answer and the use of comparisons.

3. The media studio

This activity was performed in a traditional class setting on the university campus, with two gatherings of two days each, and the presence of three...
All course participants were required to attend this studio in person. This was the substantial part of the course and based on an attitude and practice of experimentation. In order to match the participants' knowledge and skills in computing, the possibilities allowed by the PCs and standard peripherals that the students had access to, we decided to focus in the multimedia potential of digital media. The goal was to create a synergistic mixture and interaction of electronic tools with the age-proven conventional techniques and instruments of the visual arts. Thus the studio experimented with the migration between analog and digital media; thus emulating to some extent with the situation lived by most of us in our culture (Bermúdez 2003) [3].

The studio requested that either the artwork per se or the conceptual approach was the basis of the communication and the workshop a point of encounter. Teams of participants were formed based on the complementarities in skills, education and interests to increase the scope of visions. The method of work focused on the free use of digital media to pursue a perceptual – intuitive agenda. In other words, the incorporation of digital tools (software and hardware) was conditioned to the expressive and communicative needs of the user. The methodology was performed by suggestion, indication and reference, moving immediately to the action on the forms. The process started from the material and then moved to the digital. After this initial but important first, we encouraged the free migration between media, allowing variations or improvisations that came from the very process. The generation of the forms before the concepts was encouraged. This permitted students to approach the aesthetics of media and digital forms without having to worry about the reasoning behind them. The emerging new relationship of the maker with the forms was kept on changing as he or she continues to generate and transform the artistic product during the process. In some cases, the manipulation of the forms and their representation were tied to simple perceptions. This methodology brought gratifying experiences to the studio participants; the majority of whom understood that it is possible to approach digital production from the perceptual to the conceptual. It is important to remember that in the general schooling of the visual arts there exists a physical need to relate and interact with the substance of the forms, which tends to overwhelm the speculative, the rational or the methodological. Following our experimental method of hybrid media production (Bermúdez 1999) [4], forms evolved and were transformed during the successive changes of media. We introduced the establishment of conscious thresholds at the moment of media migration. When a media or a substance was exhausted, the search was either reinstated in another media or rejected. This was a recognition of the unfinished and open nature of the artistic work wherein art comes out of a dynamic and emerging process, expressing the complex interaction between the maker and his or her media.
4. Theory and practice

The apparent division between the studio experience and the theory classes is used in this paper to explain the parts that composed the course. This division was not so definitive in the action, but it was tied to the way each of participant approached it. There were as many ways to perform the exercises as students or groups of coincidence participated.

The line of theory action creates a frame to the media studio, with the conceptual aspects analyzing and thinking about the diverse cultural products: films, videos, web sites and directed readings. These readings were partially included in the references [9, 10, 11, 12, 13, 14, 15]. All this material was selected based on alternative aesthetic or conceptual parameters. Many of them were purposely contradictory or divergent to encourage the student to search for his or her own point of view. This reflective task was in addition to the ongoing, hands-on learning/artistic experience of the studio. The result was an interpretive process that fused sense-perception with abstraction within the context of digital media production. In this way, new approaches to the transposition of texts, digital graphics, hybrid forms, and media interactions were obtained.

4.1 Media interaction

In the interaction between analog and digital media, the ideation and formal transformations that confirm or discover concepts are integrated. Figure 2 shows how software, cameras and scanners are used as instruments to modify perception and thus permit the discovery of alternative qualities or potentialities of the forms, even if they are ordinary objects. The media migrations also contributed to the understanding of the origin of the digital forms, both those that emerge from the very media’s algorithms and synthesis processes, and those that come from the digitalization of material forms. In turn, hybrid forms were born out of media dialectics, exhibited fuzzy boundaries. The course actively pursued the inquiry into such issues. For example: if one starts from material forms and take them to the limit of...
distortion, where is the known lost? In short, the methodology used by the studio and its results allowed participants to inquire into the liminal spaces between sensation and phenomenon, idea and matter, work and play, and therefore challenged the exhausted rhetoric of traditional morphologic qualifications. The intention in pursuing this methodology was to seek new systems and parameters to make and understand art, as artists approach digital resources with a perceptual outlook. It was observed that the students did not previously use the digital media in their daily life, they deepened the results they obtained with every command they learned. This learning repeated in some fashion what is commonly done by artists with the instruments in the material media. Students were surprised by how the transformations of digital forms did not imply the destruction of the previous ones. Therefore, the natural tie with the material results of the forms, being these models, installations, prints, etc., was replaced by hundreds of digital files. Although many of digital forms produced did not provide much for selection or classification, they nevertheless posed a new challenge for the students: the administration of data.

4.2 The transposition of texts

Even if the course did not teach the semiology of the form making process, it did accept that students had acquired such knowledge in other courses of the program. Part of the semiologic understanding underlies the syllabus of the studio, and it allowed us to focus in each change of media as an event alike to the transposition of languages, where it is possible to interact over the units of meaning. The composing elements, the syntax and the expressive support, can be viewed through a theory that permits analyzing media migration as language mutations. According to Reinante (1997):

“...This aesthetic resource is of known value in our culture, it allows us to discover the communicative character of the formal structures that are at play on those languages...”[5]

As in every process of transposition between forms, there exist losses and substitutions at each step. The studio understood the formal work (objects, installations, images, etc.) as texts subject to analysis a position that takes a broad interpretation of the concept of text. [9]

4.3 Digital graphics

The studio is based on the incipient discipline of Digital Graphics, which is sufficiently explained in general and in the course bibliography in particular. Representation has a determinant role in the final results and in the very process, and has to be performed according to the new technologies. Therefore, the interdisciplinary processes and theories related to the hypermedia production are integrated through the broad area of Digital Graphics. Examples from art, cinema, video, TV, and cartoon history are used
as reference, as the language elements of these media are laid in the
students' cognitive experiences. Through this process, the practice magnifies
the establishment of a relation between the production at the studio and
the formal development of these languages. They are proposed to open the
scenario and contribute to the communication and the perceptive search of
the digital media. Getting closer to these languages also has a practical
sense, as with the migrations, multiple captures, synthesis images, symbols
and objects are obtained. If they are taken as texts, it is necessary to tie
them in sequences, as fragments with a role in a broader process. Several
similarities are verified between that process and cinema space. It is like
predetermining a script, or the bullets of a cartoon. Both media admit the
assembly and permanent manipulation between the general and their parts.
Most exercises ended up being sequences parallel to those used in cinema narratives [6]. The Figure 4 exhibits fragments of a video’s central scenes, the scanned dolls were digitally assembled over material spaces and real actors captured with conventional picture camera. Similar to the origins of photography (stenography system), the sensible paper is exposed manually and empirically obturing a hole (stenocopy). This experience gave absolutely surprising results in the limits of perception of the space and the objects. In the image sequence, it is hard to evaluate the expressive complexity of the final presentation, which was developed in video.

The use of Digital Graphics also contributed to the recording of space and time variables, one of the permanent concerns of the Visual Arts. From the XIX century to the XX century avant-garde movements, painting, sculpture, and architecture were pioneers; with the cinema origin, the image in movement became possible, solving part of the problem. Now the problem has increased in complexity with the expressions of Net Art, based on real time interactivity over web sites built for the collective creativity. In that sense, it was recommended to work in teams of at least four students, based in different explanations of factual aspects of collaborative work. The recommendation, however, was not followed by the students. One of the reasons was probably due to the usual solitary work training of Visual Arts. This issue opposed the studio’s desire to incorporate team work, suggesting the fragility of the creator’s ownership idea and addressing the interaction with group ideas over the traditional idea of work. Afterwards, by extension, students had to understand art from the web, with its combinatory possibilities for different users. Therefore, there was supremacy of the digital representation. It is important to note that most students did not possess a previous familiarity of digital media. Thus, they were enthusiastic discovering its expressive possibilities. Furthermore, a noteworthy aspect was the affordability of this new media when compared with the installations, models, prints, frames and bases of traditional media.

4.4 The analogic digital shapes of the studio

The results of form generation within the studio could be grouped in two different categories: material and virtual. That categorization does not qualify much, but is important to reference to their experimentation. As it is
proposed to depart from material forms, when migrating to the digital the
most important transpositions are produced at the beginning, when the
support is modified. Its entity (ontological) is deeply altered, and therefore,
also the perceivable and the imaginable. The result is the crisis of the
meaning; the concepts of the morphology traditional classification become
obsolete. That classification of forms – which is based on both tangible
aspects such as color, texture, volume, and intangible aspects such as
proportions, scale, and rhythm – is intangible according to the traditional
sense. Therefore the understanding is modified, and identity, structure and
meaning are placed in a position of crisis. Within that context, the
instruments of the digital media collaborate by form manipulation. Thus, the
figurative components have to be placed within new reference systems that
escape to any attribute of material forms. The course did not intend to
establish qualifications for the emerging digital forms, only certain types of
characterizations were validated, which mostly remitted to the concept of
post-material forms. The use of this prefix has been used in different
theories close to our topic, such as post-spatial (Senegla 2003) [7], or
post-biological (Ascott 1998) [8].

The previous knowledge the students and teachers brought to the course
supported the definition of the course’s content. At the same time,
characterizations of the forms were tested to understand the emerging
forms. The previously described experience validated the cultural dependence
of the forms that are established in the syllabus of the course. Understanding
the creation of forms was progressively consolidated until they could be
codified as a comprehensible statement. A change in the chain of
communication was observed as an aspect of the digital forms creation. The
traditional relationship sign-meaning included an intermediary object. In the
very digital media, and even more when there are activities that generate
performances and avatars, users, authors and audience are mixed. The position
of the creator is replaced by the receptor, who at the same time can interact
adding meanings. Thus, we ask how signs can be understood in permanent
movement. We noticed that the trend was limited to screen captures, video
still, and synthesis images, which contributed to achieve a particular belonging
to the known bi-dimensional languages and to a more stable visual
communication. The workshop was unsteady and favored the process and the
interpretation more than the results. Some very particular cases explored
expressive aspects through CAD, applying it against its functioning logic. In
Figure 5, pencil hand drawings are scanned and digitally overwritten. The
exploration of certain commands produced unexpected plastic results.

It is important to note, as a conclusion, that after three consecutive
courses, some stereotypes or formal trends due to the use digital media
were detected. The media had a strong impact in the creative processes,
which was legitimated by the broad range of students, with different cultural
and social background.
Figure 6. Judith Villamayor - index (Original title is identical in English and Spanish) - Interactive multimedia website. 2003, to see: www.villamayor.com.ar/index

The screen captures show a website in which each letter of the alphabet, not in order, is related to one meaning – sometimes matching the first letter, while in others in arbitrary form – linking to different videos, movies, written scripts, other websites, etc.

Figure 5. Raquel De Diego - Otra Cresta (Other Crest) – Captures, prints and multimedia digital animation. The final presentation included a “performance” with a recited poems and analogic & digital show 2001
During most of the process, as the students progressively define their project's forms, the attention was directed to the representation of their work. Independently from the ontological and comprehension aspects proposed for the exercises development, the students preferred to use digital media. Very few and specific cases returned to material or hybrid representations, such as digital presentations with live speech (poetry), or transferring digital forms to engraving techniques, models and collages; a tendency already highlighted by some authors [4].

The final production can be grouped in two broad categories: Those who created communications of physical, digital and hybrid objects, or images with multimedia resources; not solving the digital support with the content. The other group's projects were able to incorporate the digital media resources, or its aesthetic, as an expressive support for ideas and thoughts. This last group successfully achieved the incorporation of the digital media resources for the creative process and its representation.

References

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