

“Useful natasha’s escape” – multi-sensorial artistic experiences: an emancipating holistic perception of the world

“Useful natasha’s escape” – experiências artísticas multissensoriais: uma emancipadora percepção holística do mundo

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Abstract

An important contribution that art and visual art education owe to new technologies is the possibility to generate and use (didactic) means that base either on dynamic or static images, combining different languages in the effort to communicate and “produce meanings”. In this context, the aim of our artistic research was to analyze the influence of different kinds of expression through an art work that functions as a unity of auditory, visual and verbal experiences. In our opinion one of the most efficient critical attitudes towards the world would be to develop an unconditional tie of the art work with “everyday life conditions” arguing that the possibility to undertake the risk of an eventual incompatibility of beliefs would be grounded on the education of critical ‘perceivers’ of the environment as a

whole; “perceivers” that could deal with eventual dissonances in a constructive and “emancipating” way.

Key-words: new technologies, multi-media, multi-sensorial experiences, holistic perception.

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Introduction - new technologies and the world of visual media

As the age of electronic images began, the proliferation of new technologies affected almost all aspects of our lives and resulted in a revolution in the world of visual media. Like its predecessor, the “linguistic turn”, which prevailed during the 1970s, the “pictorial turn” is now in progress. The ways we deal with the plethora of visual information the world of visual media offers today opens an inevitable number of very interesting and highly-significant inquiries applied to the different fields of art in general and of art education in particular, since it deals mostly with visual images of all kinds and their combination with other expressive instruments as auditory and verbal experiences.

Complex sensorial experiences are important not only in the case of Artistic Education but for other school subjects that deal with different kinds of representation and symbolization. On the other hand, a developed “perceptuality” and all the contents this concept involves and supposes – being able to deal with different perceptual stimulations in a holistic way – are required in almost all activities and therefore, must offer a synthesized image and operative experiences.

Computers are making new and unique aesthetic experiences possible and changing the way in which art is conceived, created, and perceived. A

new world has opened for artists as well as educators. Those connected with the impact of “multimedia” technologies on pupils are relevant to teaching as well as artistic practice.

Many investigations have been held about the use of new multimedia technologies and their increasing role in education. The term “multimedia” refers to the combination of multiple technical resources for the purpose of presenting information represented in multiple formats via multiple sensory modalities. Accordingly, multimedia resources can be considered in three different levels: the *technical level* (the technical devices such as computers, networks, displays, etc., that are the carriers of signs); the *semiotic level* (the representational format such as texts, pictures, and sounds of those signs); the *sensory level* (the sensory modality of sign reception such as visual or auditory modality). Recent research indicates that multiple external representations and multiple modalities are not always beneficial for learning (Schnotz and Lowe, 118). Mayer’s theory states that students learn more deeply from words and pictures than from words alone, that they learn more deeply when extraneous material is excluded rather than included, and that they learn more deeply when printed words are placed near rather than far from corresponding pictures (MAYER, p. 125-140). Schnotz and Bannert state that adding pictures to a text may not always be beneficial for learning, but may have negative effects if poorly matched to the lear-

ning task (SCHNOTZ; BANNERT, p. 141-156).

Reception of dynamic multi-media images requires a special predisposition as far as they in fact function as a kind of reduction of authentic spatial experience.

The authentic observer is truly an artist: he divines what is significant and is good at sniffing out and retaining what matters in the fleeting and peculiar mix of phenomena,” wrote the German poet Novalis. You’d be hard pressed to find a better description of the energy of observation – image energy or, more precisely, information energy. Indeed, If speed is not strictly speaking a phenomenon but the relationship between phenomena (relativity itself), and if speed allows us to see and to conceive and not just to get around more easily, Novalis has described absolutely accurately the kinematic optics of that gaze that strives to retain the essential in the ephemeral movement of phenomena. Incidentally, this is what computer scientists today call image capacity (VIRILIO, 2000, p. 48).

Dynamic images suppose the immersion in a virtual reality. In virtual reality, a panoramic view is joined by sensor-motor exploration of an image space that gives the impression of a “living environment”. Interactive media have changed our idea of the image into one of multi-sensory interactive space of experience with a time frame, notes O. Grau (2003, p. 7). The majority of virtual realities that are experienced almost wholly visually seal off

the observer hermetically from external visual impressions, appeal to him or her with plastic objects, expand perspective of real space into illusion space, observe scale and colour correspondence, and use direct light effects to make the image appear as the source of the real. The expression “virtual reality” is a paradox, a contradiction in terms, and it describes a space of possibility or impossibility formed by illusionary addresses to the senses... Virtual realities is in essence immersive.

In spite of the fact that moving images suppose “realistic” elements connected with the perception of space, many authors (Mayer, 2003; Schnotz; Bannert, 2003; Lewalter, 2003) think that in many cases they do not foster improvement in learning because they cannot replace the value of other spatial-visual representations like schemas in the case of learning contents about the nature of features that show systemic organizations. “Good graphics present information by schematizing it, abstracting the key elements and taking away the irrelevant things... they are not realistic and may even distort the information that is relevant” notes B. Tversky (2006). It is worth notice the importance the precise definition of the function a certain representation should hold to determine its characteristics in order to be effective.

Auditory and visual modalities of perception

Interactive media have changed our idea of the image into one of multi-sensory interactive space of experience with a time frame, and in spite of the fact that the majority of virtual realities are experienced almost wholly visually, auditory sensations make the image appear as the source of the real. The relation between visual and auditory perceptions when speaking about space and time was analyzed by many authors with highly differing opinions of the matter.

Authors as Handel think that vision and audition are both spatial and temporal. He asserts that “it is impossible to imagine a visual or auditory event which is non spatial or a-temporal” (HANDEL, 1988, p. 315). Other authors, on the contrary, insist that audition is non spatial.

The conclusions M. Kubovy arrived at through different experiments in the field of cognitive psychology are also interesting. “We conceptualize our visual field as a container and conceptualize what we can see as being inside it. Even the term ‘visual field’ suggests this... Given that a bounded physical space is a container and that our field of vision correlates with that bounded physical space, the metaphorical concept visual fields are containers emerges naturally”, says Kubovy (1988, p. 319).

Another aspect of an eventual analogy between vision and audi-

tion is a negative claim about vision: Vision is not inherently temporal. Looking presupposes objects located in space, but it does not presuppose time. Seeing presupposes objects, but it does not presuppose events. Events may take place in the visual field, but they are not necessary. Looking is an activity that involves scanning and searching, but the actions it consists of occur in the looking organism, not in the environment. Any activity we engage in presupposes time, but looking does not presuppose time any more than any other activity does. Of course we could argue that in the case of artistic perception, the “event” is part of its inherent nature and consequently time becomes an important factor.

The third aspect of the analogy is a positive claim about audition: audition is intimately tied to time. Vibration is inherently temporal, albeit in different ways.

The fourth aspect of the analogy, and the most difficult to explain, is a negative claim about audition: audition is not spatial. As Miller and Johnson-Laird (1976) show, although the distinction between “listen” and “hear” seems to parallel the distinction between “look” and “see”, the parallel is imperfect. Let us pursue the question of the spatiality of audition a bit further. Even though Handel admits that “it seems more difficult to think of audition as being spatial than vision as being temporal”, he claims that “auditory events are invariably localized at particular places within an extended space” (p. 315). In his theory of in-

dispensable attributes Kubovy offers a rational basis for downplaying the role of space in audition as an analogue of space in vision. First, he argues that interesting analogies between vision and audition should be sought in analogous Gestalt phenomena, not analogous sensory phenomena. Then he claims that perceptual organization in audition is not confined to organization in time, but exists in pitch as well: however, auditory perceptual organization does not appear in space. Finally, he concludes that the most general analogy between vision and audition is space-time: pitch – time: vision-audition.

Although from a strict point of view psychologists as Kubovy argue that the province of tone-sensation offers an analogy to space, and to space having no symmetry, is unconsciously expressed in language. “We speak of high tones and deep tones, not of right tones and left tones, although our musical instruments suggest the latter designation as very natural one” (MACH, 1959, p. 278).

Von Ehrenfelds in the distant year 1890 was the first to claim that musical chords and visual forms share the property of being transposable without losing their identity. As a conclusion Kubovy states that “the space: time, vision: audition analogy is seductive but not full-grown. Nevertheless, it is better to yield to its charms than to allow the other analogies to corrupt us. At least the space: time:: vision: audition analogy can develop into the analogy we can marry: space-time:

pitch-time:: vision: audition” (KUBOVY, p. 320).

Sound appears to inform us about sources and events rather than surfaces and material objects: our language suggests to us that objects are visual; the visual objects that we see have considerable control over what we hear. Wightman and Jenison (1995, p. 371-372) distinguish between concrete auditory objects “formed by sounds emitted by real objects in the environment (i.e. an orchestra) and abstract auditory objects, which do not often correspond to real environmental objects (i.e. a melody). We differentiate the auditory subsystem that processes the concrete objects from the auditory subsystem that processes abstract auditory objects. To understand this we must abandon vision centric notions of objecthood and offer a more general definition of perceptual object be it visual or auditory” (KUBOVY; VAN VALKENBURG, 2000, p. 102).

This process should include learning about art concepts as it is necessary to understand (auditory/visual) art signs as holders of meaning and to be able to interpret and use them in creative art expression.

Therefore pedagogical activities should be guided to acquiring knowledge about art concepts, as cognition is the condition for the rearrangement of “the perceived world” to meaningful visual/auditory/verbal etc. signs. This leads viewers/listeners – pupils, to new discoveries, depiction of their own feelings and wishes, and spontaneous upgrade of their experience, enabling

transformations in the responses to manipulating stimulus in our environment.

“Perceptual” culture instead of “visual” culture

The artist is a key figure in the creation of new knowledge that has the potential to change the way we see and think. Therefore the studio experience is a form of cognitive inquiry and is a site where research can be undertaken...

The main research interest is to investigate how knowledge is created in the process of making art. Research in art therefore asks questions about the process and products of artistic knowing. The artwork carries its own status as a form of knowledge. Research of art subsequently communicates new insights into the ways that objects carry meaning about ideas, themes and issues. As an object of study, an artwork is an individually and culturally constructed form that can be used to represent ideas and thus it can be examined as a source of knowledge. Historical research provides an array of ways that images can carry meaning whether by means of description, representation, expression or symbolization. More recent cultural discourse disrupted the relationship among the artwork, the artist and the viewer and provides much more scope in the potential for meaning-making that might result from an encounter with a work of art.

“Visual culture researchers are interested in the communicative and political role of art and help us understand the contexts surrounding art so as to exercise control over the visual information we confront. The approach is to seek understanding by conducting research through art so as to determine the many functions and purposes to which art can be put” (SULLIVAN, 2003, p. 196).

As a matter of fact, it is possible to point out that the approach should develop into a complex understanding of the “information” we are exposed to. This complex is formed by (at least) visual, auditory and verbal stimuli combined in specific modes. Taking this into account it would be possible to upgrade the approach turning “visual culture” into “perceptual culture” in order to contextualize visual, auditory or verbal artistic production stimulating sensitive experiences and producing – among other (mostly unforeseeable) effects... as far as manipulation is of course probable and effective when its components address different (disconnected) perceptual capacities.

Multi-sensorial experiences

Emancipation could be defined as freeing someone from some kind of control; especially an institution relinquishing authority and control over others. Control can of course adopt very different, sometimes unperceivable forms demanding the “production”

of certain attitudes and beliefs.

Festinger (1957) explains in the principals of his theory of cognitive dissonance that there is a tendency for individuals to seek consistency among their cognitions (i.e., beliefs, opinions). When there is an inconsistency between attitudes or behaviours (dissonance), something must change to eliminate the dissonance. In the case of a discrepancy between attitudes and behaviour, it is most likely that the attitude will change to accommodate the behaviour. Dissonance occurs most often in situations where an individual must choose between two incompatible beliefs or actions. The greatest dissonance is created when the two alternatives are equally attractive. Furthermore, attitude change is more likely in the direction of less incentive since these results in lower dissonance. In this respect, dissonance theory is contradictory to most behavioural theories which would predict greater attitude change with increased incentive (i.e., reinforcement).

To determinate and undertake the risk of an eventual incompatibility of beliefs is many times quite difficult. That is why elements of critical pedagogy in its wider definition help us “educate” critical “perceivers” of art works and of the living environment as a whole; “perceivers” that could deal with eventual dissonances in a constructive and “emancipating” way.

In our opinion one of the most efficient approaches to promote critical attitudes would be to develop an unconditional tie of the art work with “everyday life conditions”. As the phi-

losopher J. Dewey would say “We fail to see how the works we encounter in museums (or their equivalents for other art forms, such as concert halls or classrooms) have actually grown from those common conditions in life which we share with the artists who made those works. Having done this, we may make a second mistake. In believing that aesthetic experience belongs to a segregated realm, we will fail to see how the artists’ success in making expressively meaningful, intrinsically fulfilling objects from the raw material of life can be applied across the whole spectrum of human existence... The purpose of aesthetics is to restore continuity between the refined and intensified forms of experience that are works of art and the everyday events, doings, and sufferings that are universally recognized to constitute experience” (HICKMAN, 1998, p. 6).

“Useful Natasha’s escape”

The project “Useful Natasha’s escape” was conceived as a multi-sensorial experience. “Multi-sensorial” means that the experience we wanted to foster was not either visual or audible but a combination where none of these modalities was privileged. In fact, it was a reunion of two different languages departing from the idea that Bach’s fugue could be converted into a visual artistic product. Every fugue has a theme and this theme should become the main one in a visually arranged composition. This means that we can

choose an image that functions as the “theme” in the context of the sequence of images of the whole visual/pictorial composition (picture 1). Then we note that in Bach’s case, the theme appears in different voices as bass or tenor depending on the chosen fugue. Changes in the musical form mean parallel changes in the pictorial/visual form. In this way it is possible to stress on the theme. In the case of Bach we could also find interludes and some compositions finish with Piccardi’s third. All these auditory variations should find their visual parallel.

Only by taking into account all these elements, the whole “composition” gets its meaning. Why should we just “listen to” Bach? Why should we only “look at” a picture? Why shouldn’t we “listen” and “look” at the same time? As far as it concerns the research experience, it is almost obvious that listening/looking offers a range of qualitative information that helps us “find” the narrative, symbolic contents of the event. The auditory and visual elements are tied in such a way that the viewer/listener loses “sight” of the fragments to perceive a unity, a narration with a wider potential content to be understood. As a matter of fact, it is possible to point out that the approach should develop into a complex understanding of the “information” the listener/viewer is exposed to. This complex is formed by (at least) visual, auditory and verbal stimuli combined in specific modes pointing out the semiotic level (texts, pictures, and sounds of those signs)

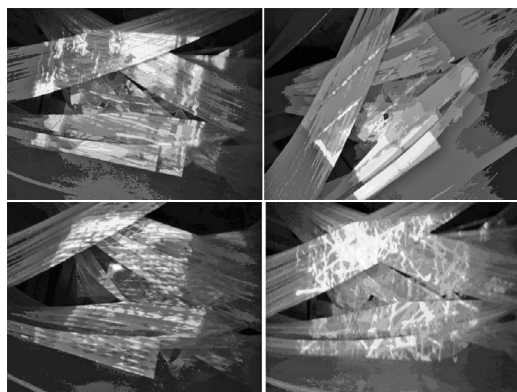
and the sensory level (visual or auditory modality). In spite of the fact that some recent research indicates that multiple external representations and multiple modalities are not always beneficial for learning, they become interesting within the context of specific artistic contents, especially if different modalities are “combined” like sounds and pictures, audible and visual elements. These ideas could also derive in a pedagogical consideration of the importance of the design of didactic means. The musician as well as the visual artist wishes to cause certain sensations which the listener/viewer should succeed in placing into a wider symbolic narration. When visual and auditory elements form a unity, the effectiveness of the communicative will is overwhelming. These shaded sensations and colourful sounds could be appreciated from different points of view. Each one is different and represents a different sensation, a different narrative content (picture 2). When the unity is considered in its “spaciality” it is able to narrate many different tales...

The title of the project was in fact a symbolization of the content we wanted to express but it was not meant to function in its “classical” verbal meaning. The need for such... among the experimental aspects of the project itself was the idea that education for emancipation in a world “infected” by (sometimes contradictory) information should foster processes that encourage different readings and constructions of significant meaning. To achieve

this is of course necessary to begin by same principals: To understand that we must abandon vision/audible centric notions of object hood and offer a more general definition of perceptual object be it visual or auditory.



Picture1 – Sequence of images of the whole composition



Picture 2 – Shaded sensations and colourful sounds could be appreciated from different points of view

The use of new technologies influences the acquisition of knowledge about art concepts and their application in art expression: in the entire cognitive functioning – knowledge of art concepts, understanding art concepts and their use in art expression,

analysis and synthesis of art concepts and critical evaluation of the results. The cognitive development also influences a successful emotional, social and aesthetic development as well as the psychomotor development of manual skills. The abundance of “virtual-visual information” must not prevent us from rich experiences with the other senses, especially when connected with artistic facts.

Conclusion

The traditional dimensions of learning are still present in our practices, but at the same time we investigate alternative concepts. Many questions as for example, how can perceptual experience be stable and continuous in the presence of other interpretations? Or how does adaptation as perceptual process function in the case of learning about arts? (GEPSHTEIN; KUBOVY, 2004, p. 1-9). Not to mention the complex relations between auditory and visual stimulus that are many times present in various dynamic didactic means (KUBOVY; VAN VALKENBURG, 2001, p. 97-126). Old paradigms based on technical skills, encyclopaedic knowledge, and mere self-expression in the different artistic fields is not responding to the demands of the society now. New technologies brought an entirely new range of experiences and possibilities. These transformations affected the way we approach and learn about arts. It is important to approach art education from critical perspectives regarding

the complexity of experiences deeply integrated in current, everyday life. Not only are we all bombarded with visual, auditory or verbal images, but we must respond to them at every step, making decisions that involve creativity, originality, spatial visualization, motivation, and imagination. The abundance of “visuality” must not prevent us from rich experiences with the other senses, especially audition, so tightly connected with visual facts. This becomes even more important if we consider the individuality of each viewer, consumer, pupil, his/her necessities, affinities, cultural background, gender etc. etc.

The barriers that once separated the different fields of art no longer exist. Dynamic socio-cultural changes affected artistic expression of all kinds; debates about the cultural identity of minority groups, issues of national identity, rapid changes in technology, and the advent of the post-modern philosophy of fragmentation and plurality reshaped assumptions supporting art and education. These transformations affected the way we approach and learn about arts.

The sensorial experiences of sight, hearing, touch and their combinations are limited in cyberspace (MUSIL, 2001, p. 353-370). In fact, the evolution of media technology tends to present things as realistic as possible; however, physical interaction is not possible, as well as the inclusion of non-verbal signs like body language or the “real” context of the sensorial experience. That is why the multi-sensory orientation of material culture

studies is congruent with contemporary trends in arts and culture and will permit art educators to facilitate the aesthetic imagination necessary to engage and to participate in contemporary arts and cultural experiences, using hybrid methods and environments when teaching and learning in a specifically holistic way (BLANDY; BOLIN, 2003, p. 246-263).

This is evidently a time of intensive development of new paths in arts and art education, as shown by the fact that many authors promote the expanding field of material culture studies as a viable theoretical foundation and practical direction for art education. Challenging the current shifting stance of art education toward accepting a position of visual culture, these authors argue that rather than adopt a visual culture perspective, art education would be more readily served by embracing far-reaching holistic forms and practices that can be critically examined through the interdisciplinary, multidisciplinary, and trans-disciplinary methods associated with material culture studies. Evidence suggests that orientations to educating people about the arts and culture that are vision centred or focus only on traditional arts disciplines will fail pupils by preparing them in a much too myopic manner. The multi-sensory orientation of material culture studies is congruent with contemporary trends in arts and culture and will permit art educators to facilitate the aesthetic imagination necessary to engage and to participate with contemporary arts and cultural experiences, as well as

appreciating and understanding the history of arts and culture in a much more holistic way support this ideas as far as we could in a way demonstrate the relativity of the importance of “vision” if it is taken as the only element that could foster improvements in the development of space representation and putting aside a holistic conception of perception.

Art education might be a way to promote learning experiences, develop understanding and create holistic representations of the world, as well as creative and critical thinking through aesthetic dimensions. The aesthetic dimension is a unique process of cognition that can be developed by art education and exploited by other fields. In effect, a global understanding of our past as well as our contemporary world demands this set of complex elements and rich “connecting experiences”, which should be one of the principal objectives of education at all levels and a key for personal and social growth and emancipation from the different forms of “cultural slavery” that impose at every step of our “globalized world”.

Resumo

Uma importante contribuição que a arte e a educação em artes visuais devem às novas tecnologias é a possibilidade de gerar e usar meios (didáticos) que se fundamentem tanto nas imagens dinâmicas como nas estáticas, combinando diferentes linguagens na tentativa de comunicar e

“produzir significados”. Nesse contexto, o foco de nossa pesquisa foi analisar a influência de diferentes tipos de expressões através de um trabalho artístico que funciona como uma unidade de experiências auditivas, visuais e verbais. Em nossa opinião, uma das mais eficientes atitudes críticas a ser tomadas pelo mundo pode ser desenvolver uma ligação incondicional do trabalho artístico com o cotidiano, argumentando que a possibilidade de comprometer-se com o risco ou com a eventual incompatibilidade de crenças poderia crescer em relação à crítica educativa de quem percebe o meio ambiente como um todo; “perceptores” que poderiam lidar com eventuais dissonâncias de um modo construtivo e “emancipatório”.

Palavras-chave: novas tecnologias, multimídia, experiências multisensoriais, percepção holística.

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