

SEARCHING FOR OTHER IMAGES IN EDUCATION: REPORT OF AN IN-DISCIPLINE BETWEEN SCHOOL AND CULTURE

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Abstract: The article is a deployment of the lived experience in an undergraduate discipline in which was studied the images present in textbooks and their effect on the representational thought and trials with images were held in the search to cause erasures in the usual way they have in education. A route that culminated in a final challenge for the students: to create an educational activity inter-multi-trans-disciplinary with images, where they fell outside of the purely representational way. "An impossible activity" in the words of the students, which made clear the possibilities that are created at the images in school situations when the impossible forces the thought to the invention of a new potential.

Keywords: Image. Discipline. Culture. Textbook.

Part one: study of didactic images

The discipline¹ was organized in a course whose perspective was to address the strength of images to affect human body. We have chosen to focus on images that more consistently cross the curriculum and the classes: namely, those present in textbooks from different disciplines, because students from different undergraduate areas were involved in the reported proposition. Around these images, which constitute a significant part of the school visual culture, that the general route of establishing relationships between school and culture occurred, aiming to pursue some questions: in which ways the schooling acts on culture and vice versa? Which are the image(s) senses present at school? Which are the visual culture(s) potentialities crossing the school? What could be possible to other types of images at school?

The approximation to textbooks images was by reading articles and interviews related to the multiple relationships between images and textbooks; through debates that occurred in the classroom; and, mainly, through the students' filling of some scripts aimed at proposing distinct glances for the same set of images that made up the textbook chapter² chosen by each student and also aimed at establishing the encounter with the similarities and differences among various disciplinary visual cultures established in the schooling course.

We used three scripts to propitiate the student's approximation to the images. In the first one, we requested the students to note the amount and the types of images composing the chapter; to establish simple relations between images and

texts; to look over the chapter only through images; and, after that, we asked them to note the senses assumed by the different types of images in their relationship with the various types of written text. In the second script, we asked the students to look back to the same images considering the four main characteristics proposed by Vincent, Lahire and Thin (2001) for the "school form", and we proposed: "Considering the centrality of the written language in the completion-theory of the school form, write down how (languages in the) images are (dis)articulated of this written language in textbooks." In the third and final script, we asked the students to return to those images considering the disciplinary assessment scripts of the *Programa Nacional do Livro Didático* (National Textbook Program) of the previous year³.

As the students read the texts, filled the scripts and discussed about it in class based on their responses, they would discover the massive presence of images in almost all disciplines, with the preponderance of certain types of images in each one of them, but the photograph being present in all of them. Also, they would find clues either of the differences between the disciplinary cultures as of the general similarity of the functions and senses that most of images have in textbooks: illustrating information and concepts, seducing and memorizing (to any type of image); systematizing and illustrating (to charts and diagrams); showing, exemplifying and proving (to maps and photographs). It was important to note that the images that frequently appeared in the chapters openings – hybrid montages" with various images and languages overlapping composing an only image printed on the page - were also meant to beautify the book and not necessarily had any informative sense related to the chapter following it.

A first clue pointing to the visual culture similarity that goes throughout all the school disciplines appeared there: the understanding that hybridism, mixtures, overlaps in an image – especially if it is a photograph – take from it exactly the most common senses given to the overlapping majority of textbooks images: to illustrate and promote the memorization of the informative content of the written text. Only the seduction sense remain present in these hybrid images, because it seeks to affect the existing human students and not the inhuman forces of the knowledge to be acquired. Thus, in the inhuman clashes between the strengths crossing the images and the languages which form knowledges and thoughts – which form, in short, culture and cultures –, images and their tense processes of production and

appearance in textbooks seem to be disregarded so that the most common senses and functions of the first in the latter can remain stable and efficient.

Through this last clue and others emerged during the discipline course, we outline that, in the limit, the images themselves seem to disappear, effectively are not noticed anymore, so that they can be meant as transparent to the phenomena, facts, concepts – finally, to the informative contents that they are demonstrating to students in their visual shapes. This strategy of imprisoning images and to contain them in a restricted and restrictive set of senses and functions so that some of these senses – mainly the one of representation of something external to the image itself – can be installed there with no questions or tensions, becomes something noticed by students, to a greater or lesser degree, in all types of images from the textbooks chapters, target inside or outside the discipline course. This discovery reveals a visual coercive policy to the more heterogeneous and diverse uses and functions of the images involved in the learning course in textbooks. That is the main learning regarding images: the sense construction of its transparency to reality and, therefore, the no need to ask questions to the images since they – especially the photographs – only reveal what is actually there.

In the perspective of the concept of "school form", already mentioned, this is a victory of the written language over other languages, just as well this is a genuine strategy to implement what schooling has proposed to in societies where it became to occupy the insertion center of the youngest in the elders world. A strategy that, despite greatly submitting images to the writing, amplifies and uses a potential of images – perhaps the most pursued throughout the so called modern or scientific period – that has placed them at the center of the global civilization process, led by television, photography, film, and now also the Internet.

The images centrality in the globalization process of information – which certainly are, in some measure, colonial and colonizing being, therefore, cultures homogenizers – places a paradox to us: these same processes manage – often in close proximity to art – resistances of many types which sometimes make resist intact certain images aimed to mean as obsolete by globalization, and sometimes make re-exist those same images in (and *and*) others that erase, hole, problematize, rage and silence the images that want themselves to be hegemonic – often unique! – from (and to) a certain type of cultural globalization. Would we find in the forces that emerge from these resistant images – images that place themselves, above all, as

images – clues to give access to contemporary issues that insist on escaping our understanding?

During the classroom conversations, among a restless youth, it was clear that many of these languages in (and *and*) images, which persist in resisting, fill the social networks configured on corporal and/or digital interfaces and act in cultures that affect and shape the youth bodies, among them, those students in front of us. These images become other in relation to the hegemonic ones precisely when managed under modes of figures creation that are not transparent to reality, but immanent to it and that are even exceeded to it; when they bring to their visualities something of the real that, before the image existed, was not sensitive in reality yet. These are images, therefore, which do not only reveal the reality, but act in it, changing it, turning it into another, into unstable, as they open themselves – become permeable – to sensations and intensities that force themselves to have more the function of acting forces in the world than the forms that represent it, images whose meanings do not stabilize, but are always drifting at every new connection that is engendered to them. They are images for which we ask questions and not only find answers. It is in this sense that we understand the relevance of the question currently placed in the education field: this victory of representational images – illustrative and informative content memorizer – that paralyzes the forces someday taken by the forms and languages in schools would not be something to be broken or, at least, tensioned, problematized? Would not it be interesting, inasmuch it is powerful, for the education of our children and young, to enable that other types of images could compose the schooling, maybe setting the textbooks? It is in this sense that the discipline course fold took place as a question: what can (other) images do at the school?

Part two: experiments with images

The second discipline module was configured based on an investigation about how other images could possibly affect the educational practices and the teachers. It was also based on the contact with images that cause deletions in the representational thought and, consequently, in the usual senses that they have on education. It was a bet on the lacking images in school culture, a lack that is not the absence of something already given, but a need to give existence to other images since experimentation. A lack that raises the images to other possibilities, other

powers. Driven by this search, this second module took place by bringing the students closer to some concepts and to some photography, cinema and visual arts artists' works, and by their own experiments making with images. For one of the classes, this journey happened through a proposal to think the photograph from the tension of the time and memory concepts by the connection established by the philosopher David Lapoujade (2013) with Henri Bergson work. It was a search to set images free from their habitual imprisonment in an idle past, from their perception only as a reserve of sense that works collecting and signifying our memories, as a way to "record", "capture" and "store" reality, in order to connect them to a time-alive notion, in which memory is permanently active and constitutes itself as a reserve of energy (LAPOUJADE, 2013).

It is a bet on the possibility of the photographs containing this reserve which, in the experimentation, gains potential to emerge and initiate new developments on its surface. It is a desire to set the images free so that they can move around, let time flow in them, so that they can, open other possible futures. This challenge requires that the contact with the images not only happens through intelligence, but through a sensitive approach, an intuitive relation, for the possibility of letting oneself be affected by them, of extracting a creative potential from this meeting and of seeing them as surfaces always in the process of being done. It is an attempt to let pass life in them, to make them desire and rave, making them a fabulation: "an image always resumed, patched, and that does not stop growing along the way until becoming fabulous" (DELEUZE, 1997, p. 133).

Infected by these thoughts, we set out thinking, together with the students, what can creation, experimentation and exposure of/with the photographs be in the relations to these time and memory conceptions, having as imagery material the experimentations carried out with the Coletivo Cê photographic archive⁴ and the artists-guests interventions at the Casa Museu Eva Klabin, part of the *Projeto Respiração*⁵ with the curatorship of Márcio Doctors curator. Both – the experimentations and interventions – were exposed to students through photographs, short films, texts and words that highlight how intense was their creation under the contagion of the alive-time notion proposed by Bergson, as well as used an existing collection of photographs and classical art works as raw material for new interventions/experimentations. In this sense, the experimentations and interventions exposed to the students come from an understanding of the

composition of a collection/archive as an act of self-communion, which allows an expansion to new experiences “capable of producing sensations that have not been lived” (DOCTORS, 2012, p. 38).

From the other possibilities of existence that the connection between these thoughts and interventions/experimentations give to images, the students were asked to invent new images through the configuration of many relationships with the sensations triggered by the contact with the Coletivo Cê creative processes photographs and the texts collection, tearing it, cutting it, sewing it, painting it, proposing new combinations to it in an attempt to create desiring and delirious images, in which the seeing and wanting would be confused.

From this experimentation, creations⁶ have risen these ones wishing to draw a flight line, wishing to destabilize and to unbalance the photographic language – the usual meanings of the images vary as a chaotic pendulum, the ones in which a new oscillation is produced every slightest touch and the pendulum go through various points – both the usual senses and those deemed “outside the curve”⁷. There were born images that, for students, at the first contact, continued to be representative, still seemed to express forms and figures, but that created small deviations from these initial representations by which these senses could escape, by which the images could differ from each other through articulation with other images and materials. In the student’s creations, there are lines that sometimes make images and words sigh... Images that sometimes seem to stretch or break as waves... Images that are re-born, that are re-created, sailing on the paper surface, wrapped in lacunae.

From this experimentation, creations which were outlined as a way to make the exterior of the images cohabit their interior have risen – an interior that, for one of the students, seemed bleak in the face of an attempt to connect to them by representational thought, by the endeavor to access what was a spectacle and what pushed to give them another life. It was an attempt to give consistency to a desire to make the exterior cohabit the surface of the images and to see other images born from them. Images and words that became wet by a rain made of desires, delusions, paintings, lines, words. Materials open to a “what if”...

These were some of the erasures in the usual senses of the images; senses in which they constitute educational practices and teachers. These erasures proliferated themselves in and by the render to the forces that have emerged from the encounter with the materials. Thinking, creating and experimenting with Coletivo

Cê photographic images emerged as a possibility to allow failures, to escape from a control “that one deliriously thought to possess”⁸, to make them run away from a totalizing notion of retention – representation – of time and reality. We also saw the possibility to find in photographic images the encounter with what affects us and also to affect them by what moves them and by what moves us; the possibility to let the creation happens by and with photographs, by a sensitive approach to them, touching their surface and of other materials, allowing to be taken by them, sliding in their surface to see other images being born. Cut, drilled, overlapped, torn, displaced to connections with other images and materials, the photographs were erased in their representations of time and of the reality of theater plays, releasing other forces that came to circulate by their desired-to-create surfaces, in the even contact with students hands, eyes and sensations who, to a greater or lesser extent, indulged themselves in putting together the supposed reality of photographs into images, in which poetry, pain, surprise cross the multiple realities that are seen when the photographs escape from the representational sense – of time capture –, where they were previously contained.

In the other class, the module “What can (other) images do at school?” began with the approximation to two concepts present in the Gilles Deleuze and Félix Guattari philosophy: rhizome and machine⁹. Our intention was to allow these concepts to operate compositions with an audiovisual experimentation around the students research topics – elected by them at the beginning of the discipline, from the textbooks chapters. In this experiment, something showed us how the images creation happens amid tensions and adjustments full of barriers, transformation, contagion of some images over others. That is how our “not exactly knowing how to make” made us more opened, both in the making and seeing, to other senses that were being gradually connected to the images.

Producing some short films, stimulated by Coutinho’s works, seemed contingent at the moment to us, and we did so. This happened to a large extent as we choose a filmmaker who searches in many of his films to show the “truth of the filming” and not the “filming of the truth”. A question that marked our propositions was: “how do we allow images to produce some difference in relation to something we already know?”.

The act of producing was something that placed itself as a way to provoke the students to think with their own images, a way to put them on the making, something

that made them think about technical and theoretical issues, that made them do a sort of cartography of the images, in which the meanings to form connections between the images and us are not necessarily linear, but which are rhizomes, roots entangling themselves without beginning or end, giving us more questions than answers. Thus, we take this moment to think that the images meaning “has no beginning or end; it is always in the middle, between things, interning, intermezzo.” (DELEUZE, GUATTARI, 2011, p. 48). We needed to hold on them and establish various connections.

We watched an excerpt from the film *O fim e o princípio* (COUTINHO, 2005)¹⁰, calling students attention to observe how to perform the images, negotiating with the scenario, the camera, the character that talks, the weather, the unexpected, with an idea that is formed during the film production, etc. Our quest was to show how much of intent and work exists around the images creation, as well as to understand the devices used by this director so that we could invent our own ways of doing.

During another meeting, we performed a conversation around the *machine* concept, trying to bring to the surface of the classroom the idea that images can act as machines and operate things in our ways of thinking. Couplings and machineries, two notions derived from Deleuze and Guattari (2014) that we added in the relation with the studies. A mechanic that went also through both the handling of the camera and its optical and sound devices, as through the manipulation of audiovisual language elements: the sound, the picture, the plan, the angle, the light, the scenery, the ideas of how to shoot, the composition, etc. We also highlight the machine of machines, a film machine producing a machine viewer. With these daydreams, often filled with humor, we were amused and tensioned in the face of open and potent concepts for problematization in our studies. The films and texts pushed us to a moment when we were turning harder to produce and talk about our own images: we drew some conditions and set out for this stage, contaminated by everything we already lived.

This conditions were: 1) production would have to be an interview — a bet close to what Coutinho does when choosing the talk on the camera as the object to be shot; 2) the interview would have to be connected with the textbook chapter subject that each student were focusing on, so that the questions would promote a dialog related to that subject with the interviewee; 3) filming should occur with the camera at rest and in a place thought for the film — in this way we wanted them to

address the space; 4) the film needed to have between two and three minutes — so that we all could watch and talk about it in class. These four conditions created the students prison, the limits through which they would have to force themselves to invent.

Altogether, fifteen short films were made for the meeting in which we watched and discussed in class. Among them, we highlight two for this text – we do not want to extend on the descriptions and the discussions so as not to overload the reading.

In the short movie, a Visual Arts student introduced himself and presented this question: "How do you feel about contemporary art?" – something that strained him in relation to the art images in the textbook. Walking with camera in hands, in a public square in the city of Campinas, the filmmaker puts himself looking for someone to interview. The camera walks and focus on some trees, pictures, benches, stands and a few scattered people in the scene, until it approaches a lady and the student asks the question that guides his film. The person immediately responds: "Are you filming? I don't want you to film me". He insists, and she tries maidenly to say something, but she feels embarrassed and decides to stay eight seconds in silence, until she says: "It's bad, I won't be able to develop this". The progress of the images is given in this swing, of an interviewer seeking answers to his question and some people troubled with the camera's presence. Images of heads down, afraid to face the camera, attempts to run away from the interviewer, doubts. Only a few people is willing to interact with the filmmaker by providing the necessary dialog to perform the proposed exercise. Classroom conversations arose perceptions in relation to the power that the camera has in the field, the way it embarrasses and draws attention, something that pointed to the presence of digital video in the culture and also to the presence of circulating powers around the images on Internet, the hassle of people and the way they responded to questions, sometimes being shy, sometimes suspicious. These conversations guided thoughts about the presence of the camera in public environments and the power of art that it had. "She doesn't want to talk about "art", she wants to talk about the camera that is filming her" said a student. Would it give us a question to think art on contemporaneity? That was the subject vibrating in the student's desire to film. We immediately placed other senses in the image: power and image and public and intimacy and facebook and copyright and... other matters that were setting up a conversation with the film and with contemporary art, traversed by other senses, forming a rhizome whose tips unfolded in every new connection made,

an “endless conversation” in the words of another student. In another short film, an Electrical Engineering course student had electromagnetism as subject. Very lost, not knowing exactly what to do, the student randomly walked with the camera on in places that she felt at ease: the School of Electrical Engineering, where she had most of her classes. She ended up going to the Academic Center of the course and there she met up with friends to whom she said: "It's a video, I have to ask you a few questions, I don't know what to ask yet but... hey, tell what do you think about it". Scattered, the people we see on the images talk about other issues and end up reaching a conversation about the University as a political space and as a space of social criticism, and also about how they can find, there in the University, better ways of addressing other issues. The talking continues while the camera wanders on, highlighting objects, people, space portions. In addition, the student, due to an "oversight", filmed with a cell phone in an inverted position, making people appear upside down in the film. In the classroom this curious fact called the group attention: "It was cool to film upside down, it seems like you want to show us how much the University turns us upside down by showing us more about the world", said a student. The form was clearly making itself as content and, together, they were the force of those images. We also noticed how that place — the Academic Center — associated with the fact that the student had not completely understood what she was supposed to make, enables possibilities to escape from the initial subject, to compose with the coincidences of encounters in a familiar place and with the camera upside down. To think more about the university than electromagnetism, placed openings for us to also try to correlate the issues and talks about this with the textbook, in many other books, in many other versions, in the image random that launched us to other sense territories. We see how a "prison" – a film about a specific subject – is able to free itself to other possible modes of composition. Discussions usually extended beyond class time: they had to stop here, but they certainly continued on the way home.

Both films worked in connection with what we studied: they pointed out how things didn't seem to be what we wanted them to be, as something that happens between the various senses that involve the plot of connections with the images; how many openings existed and invited us to enter. Thus, our conversations addressed the deviations as educational powers in the own images, more than what they actually were doing within the expected subject. However, were the images in the

textbook working in same way? Our experimentations allowed us to go back to the original route of the discipline, seeking to better understand the marks present in the school and culture relations, pointing out not only the strength of the didactic images in making us go through more “objective” ways, but also the very construction of knowledge through an education in the relation with the view.

Along this little filming exercise and conversations – and after –, we went back to the textbook, to continue asking questions to the images which formed, there, the educational pathways. And, from the many questions, doubts, restlessness and enchantment, we began the search to create other possible modes for images to appear and move in educational activities and school environments.

Part three: creations of other educational practices with other images

In the end, both classes retook a common pathway, in which students, in groups of different courses, were challenged to set up an inter-multi-trans-in-discipline educational activity with images, and the latter should escape the exclusively representational senses that characterize them in the educational disciplinary cultures. The activity proposed aimed to bring new possible uses and senses for the images at the very moment in which these young persons invented other ways to use them in educational activities, taking them as inhuman forces that cross the contemporary education, which sees itself suffocated when the images are contained in almost a single use and sense: the representation.

By seeking to release the images from such use and sense, the groups of students sought other types of images existing in our culture, notably in the art world, to configure their activities. This movement towards art had already been circulating the classes in the previous moment, with experimentations carried out around the photographs of Coletivo Cê or around Eduardo Coutinho films and it was potentiated by the exposure of art books carried out in the first classes of this last module, as well as by the watching of some short films or excerpts whose shooting style or composition differed from the usual, as they appear in the audiovisual images of Hollywood cinema and commercial television.

In the class in which we showed the art books, the students, surrounded by images of various artists – paintings, prints, photographs, films – were challenged to choose those images that, perhaps, could compose an educational pathway for the

chapter subject which they had dedicated themselves throughout the semester. Facing, most of them, the impossibility of finding images that represent, albeit subtly, the information and processes addressed in the textbooks, students talked and laughed, flipped through the books and looked at each other seeking a way out, a clue to where they could go next. Some found, some did not. By giving up a way to find, they let themselves be carried away by the joy of seeing... a type of drifting took many of the students.

In search to open thoughts to other possibilities of bringing closer the school topic-subjects themselves – and Education – from less cognitive or informative glances, we asked the students: *"Is a subject composed only by information? Would it be also composed by sensations and aesthetics that are (almost) invisibilized by the (almost) exclusive focus on its cognitive and informative aspects?"* Then, silences, abrupt movements, scribbles on loose sheets of paper, other gestures made up the environment in the classroom, where the professor and the interns circulated in search of evoking further unrest.

As this activity was conceived in groups formed by the students mix from different courses, the challenge became even tougher and powerful at the same time, since they were (dis)placed at every moment according to the constant negotiations between them in the quest to find images that would allow not only the touching of some of those subjects, but also the establishment of the relationship between some or all the subjects focused on the group. Questions and more questions. Feeling gestures, encrypted conversations between the students, nervous laughter and shining eyes and irritation and... Questions of many types were addressed to us, and we sometimes avoided them formulating other questions and sometimes gave little clues of possible choices.

All of attention given in the lessons and the activities proposed for home went on to be for the images. There were no more texts to be read. All the following classes were animated by discoveries, ideas, impulses (instincts) that they found in the images. The images were there and most of them escaped from a didactic use, foreseen as possible. They were unruly in many ways: they were not self-explanatory as didactic images, they did not fit in any specific school discipline or any scientific discipline, and they had not been created from signs of some discipline, but rather from undisciplined signs scattered in the culture. However, they fit in Art, and by only fitting there they disciplined what to think as being Art.

Among the two classes students, there were some from the courses of Visual Arts, Performing Arts and Music. However, in the groups where they were present, another problem arose: how to interact with the other disciplines that formed the group? In groups with students from various courses, the students found themselves with various difficulties, making clearer the inhuman forces crossing Education. For example, how do we remove the disciplinary forces and set up an educational activity that gathers topics and subjects from the disciplines of Chemistry, Sociology, Biology and Performing Arts? How do we escape the power of the writing, this one pretended as the organizer of all school activity, and give priority to (audio)visual images? How do we escape the representational forces and let the images move by other senses and even by none senses, which can generate other approaches and learnings – undisciplined – about a school topic or subject?

The disciplinary, written and representational forces that are part of Education and that force humans to act according to certain guidelines, preventing them from thinking other routes, became more and more highlighted. How do we escape them? Would it be better to forget the limits and routes proposed by the disciplines and think only from topics and subjects? Would it be better to choose a single image, any image, and approach it to the topics and subjects instead of doing the other way around, go from the topics to the search for images? Would it be better to create a sequence between the subjects or discover another subject that touched all the topics that should be present in the educational activity? Would it be better...

The groups of students were fairly involved with these and many other questions over three weeks. We could see, in the vast majority of students, the thought being thought. At every new exit found, another set of problematizations was placed by us so that they were forced to continue thinking, finding other ways of making possible what seemed to them – and was it? – impossible. Arrived the day, in the presentation of these activities by the students, it was clear for us and other students in the classes that possibilities unfold for the images in school situations when the impossible makes the thought invent new possibilities. We bring only a few of them to finish this article.

1 The wave, movemen...

The students proposed that the subjects that made up the "problem" of the group – Porifera (Biology), Chemical Reactions (Chemistry), Light (Physics),

Capitalism (Sociology) – should be grouped around the idea of movement and chose the usual image of a wave as the general image where other images were arranged, dispersed¹¹.

Figure 1 — Activity created by students



Source: the authors.

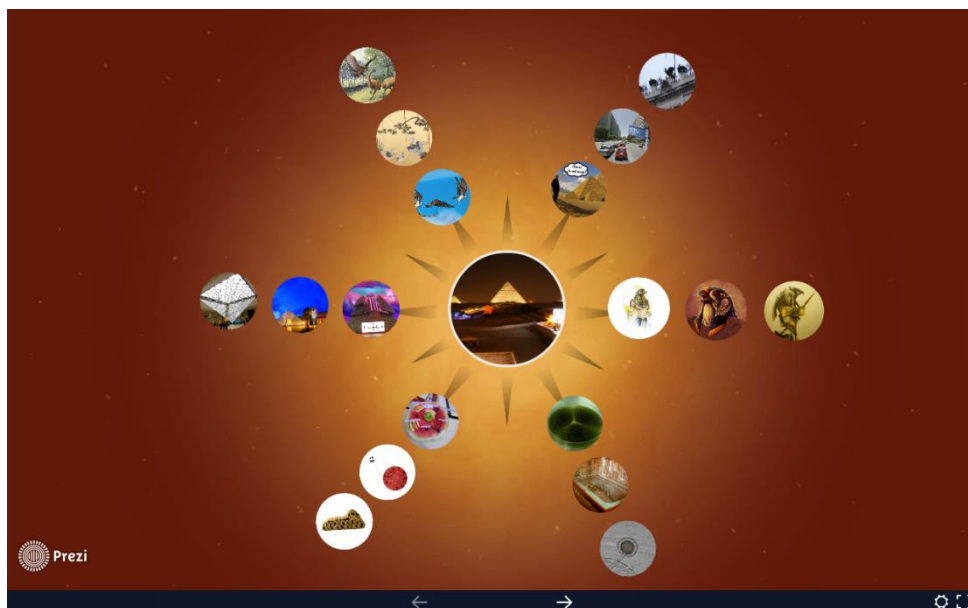
The proposal was to promote a random circulation by the images, starting with the expansion of the scientific plate that is more or less in the middle of the general image and moving through the other images, on a coming and going, without any type of predictability, promoting the creation of a movement with and in the chosen images, where the very “interrupted word” which gives its name to the activity also received the possibility to move... Several types of images were used by the students, with emphasis on a set of photographs from the most different styles and photographic genres that dragged the general representative sense present in the textbooks pictures to other possibilities of composition and thought: informative-scientific photography of a sponge or a scientific plate of microscopic observation; coca-cola's advertising photography; several artistic pictures; instant photograph that shows all of the informational content intended, the marine example of sponge; instant photograph that shows an object – earring – to talk about the other; computer components; photographic composition that dances; photographic fragment that cuts a detail that prompts the imagination of the whole. In addition, in some of these photographs, the light has a distinct meaning: heat, photography trick, natural

luminescence of a sea dweller. Although in the image-wave these various photographs are traversed by other types of images – cartoons and drawings –, it is their variety that leaks the thought about this type of image in their educational potential and that bring up questions such as "what can the photograph in education do?". In the presentation of this group, we also highlight the last image, which is outside the initial image-scheme-wave, and therefore escapes a scheme initially presented as apparently complete. In addition, the choice for that image generated a shift of the movement concept from its physical and chemical aspects and it could be thought in its social and political aspects, as movements of resistance, creation and introduction of the new. An attempt by the students to relate the idea of knowledge, drawn in the presentation, with something not ordered, unstable, in movemen...

2 The pyramid, twelve-pointed star

The general image format chosen by the students was that of a twelve-pointed star, being six of them drawn in three circular images on each "spoke"¹². This structure was chosen to give equal space and amount of images for each component of the group-subject of the chapter. There were six: Vargas Era (History), Pyramids (Mathematics), Fungi (Biology), Organelles (Biology), Birds (Biology), Evolution (Biology).

Figure 2 — Activity created by students



Source: the authors

The bigger "problem" that the students found was "how to address the subject 'pyramids'? How to connect it to the other subjects?" They found, then, a subject outside the initial ones, Egypt, which allowed the grouping of subjects around it, that is why the image of the Egypt pyramids is at the center of the star and all "spokes" start from it to be configured as subject (to be) studied. Only after defining the articulating subject is that each student researched various images to move their subject and, at the same time, search the subjects in different sources. Thus, it was possible to find passages between the Egyptian hawk gods and the birds in the evolution theory; or between the Pharaohs who built the pyramids and the "pharaonic works" carried out in Brazil in the Vargas Era. And they also folded multiple and unusual views over Egypt, enabling the coexistence of the traditional pyramids with the fungus found there; and also enabling the Egyptian jewelry, whose jewel reminds the shape of parts of a cell, was revealed regard the subject of organelles.

These and other discoveries were made by students in their images research to compose the three images required for each "spoke" of the star initially set by the group. This forced students to get in contact with images and to turn equivalent images of various types, also composing with images – as in the "spoke" of the Vargas Era – to perform the task requested by us and complexified by the group itself.

3 The puzzle, building concepts

In another activity, it was not only by the choosing of a puzzle composition¹³ that it was established an educational game, but it was also in the creation of images and concepts working mode in a didactic activity.

Figure 3 — Activity created by students



Source: the authors.

In the search for connecting the subjects of the chapters, the images choice by each one of the group students followed the same rule: each image needed to make a connection with more than one of the worked subjects– Botany (Biology), Gravity (Physics), Microbiology (Biology), Arthropods (Biology). The search was to try to break the common sense of each image, the notion of what can be visible in them, to make other connections from each image chosen (as well as from the fragment of another image that pervades the puzzle piece where an image is almost complete). Thus, a photograph of an insect or a tree could initiate a discussion about gravitation and the image of an arthropod could establish a connection with botany. Together with this search, another bet raised: to bring up the creations of artists who mobilize scientific issues. Choices that propitiated a possibility to see waves in a petri dish or to see a tree floating... images involving interactions between science and art.

4 The cinematic journey, equivalent to images

The film¹⁴ made by the group takes as its central subject the man arrival on the Moon and seeks to create connections between the different subjects in the group, taken from textbooks on Visual Arts, Chemistry, Portuguese and Sociology. The film was created for High School and performs an attempt to not only encompass different subjects and create other senses in them through proposed relations between themselves, but also to address and make equivalent various types of images, such that as fictional films, film documentaries, TV programs and animated films. The connections network between disciplines took place by both the subjects and the images – by converging to film the archive footage of the North American and Brazilian press, the images from the movies *Armageddon* (1998) and *Le Voyage dans la lune* (1902) – as well as by the word game that is linked to the images, subtitled by the participants in order to propose different relationships between text and image - full... empty - The Future - Combustion - 3N2H4-4NH3+N2 - Air Pressure - Peer Pressure - Conquest of space? ...

Figure 4 — Film created by students



Source: the authors.

The central point of this film is that the mixtures are established not to determine meanings already given beforehand, but to allow images talk, infect them with other possibilities of meaning and meaningless that are not mutually denied, but which are made together. For example, images of art are folded into chemical information and do not cancel each other out, nor are separated, on the contrary, they are connected to give other senses to themselves and to the experimentation in images. The big bet of the students was to assume the challenge of relating all the subjects and disciplines in a single work without necessarily having to explain each one of them, but rather let them exist in the relations between images, so that what is most evident is the connection between them in a single "critical narrative" and not the separate exposure of each subject. Everything is mixed and (dis)articulated between words and images, enabling both the discussion of each issue separately (this possibility was not annulled) but, above all, their treatment in a related note, in the interconnectivity of the senses that are formed and in the lines that are caught and released in a movie of approximately ten minutes. Other works were also carried out with audiovisual composition, but also with performance, projections of images in the classroom, photographs ripped and pasted that proposed the interactivity of the audience... Ultimately, many ways were invented by the students. They transformed

the classroom in a space of artistic and scientific installations at one time; they shifted subtly or strongly the images from their merely representational, illustrative and informative universe; they sought to create other senses-feelings, calling the images to participate in the content taught, the learning acquired; they calling them to compose problems for the thought. They sought to realize an impossible activity that came true. What is common among the group-presentations described above and others not present in this article, and that seemed to us to have greater power for the images in their meeting with education, was the plurality of fulfilling and passages that students invented between images, allowing multiple imaginative possibilities to raise from the gap between them, correlating different disciplines, folding one into another and extracting from it – from the between-images that are created with the images – inter-multi-trans-in-disciplined thoughts that gained unique rhythms and connections in each student. In some of them, they were more paralyzing than mobilizers, because they persisted in asking: *"What is the point of this to teach Biology, Chemistry and Sociology?"* However, in the vast majority of students, we note that together with this question, which persisted in them, other questions were possible: "what subjects traverse one same image?", "how do we change the merely informative images so that they can reverberate something more than visual information?", "how do we search for an image for a subject from the feeling that it provokes in us?".

It was an "impossible activity", in the words of the students; an activity that still touches the impossible and, therefore, has the power to invent new possibilities, new possible means. From Gilles Deleuze (2010), we affirm that a new possible is not something predictable and therefore it does not happen in the realm of suggested possibilities or probabilities. In this sense, a new possibility is something ripped out from the impossible, something that, exhausted the possible means, is invented. All possibilities are never exhausted "because everything possible is never performed; it is even created as it is being realized." (DELEUZE, 2010, p. 67).

It can be said that a large portion of the images that composed the activities invented by students imposed escapes to the representational captures that remained in them pulsing, but that were not imprisoning them anymore in one or a few senses that made them a disciplined part of some discipline. The images, by crossing several disciplines and subjects, indisciplined themselves, as well as the subjects and disciplines that they cross, creating loose ends, vanishing lines for the

entire set of things which was connected through them, making themselves inhuman forces that force the disciplinary and disciplined bodies to meet in subtle variations or loosely in their senses and impossibilities, opening up new possible ways of composing education by – through – images. There are many other activities and potentialities with images to be invented at universities and schools. Possibilities for creating paths for the images permeated by corners, stops, hesitations – in each one of them, the invention of a separate connection, a new folding, pathways that are unfolded and in which are always in the middle, being dragged by the images and dragging them to other circuits, to the birth of other forms and strengths. These are images that move themselves and move the educational practices in the potential of the doing, in what each encounter between beings and things can, evoke for each one, in a movement between school and culture always in transit...

Notes

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¹ The discipline in question is entitled "Escola e Cultura" (School and Culture), was offered at a public university for two groups of students from different undergraduate courses in the second semester of 2015, and had the participation, in codocency, of two postgraduate students one in each class.

² The chapters were chosen by the students themselves and were taken from Basic Education textbooks. To choose the chapters, they had as reference their graduation area and the presence of images in the chapter, which consecutively, became meaningful to the diversity of subjects, since there were, in the two classes, students from twelve different undergraduate courses, including at least one among the four major areas in which the University is organized: biological, humanities, exact and arts, and since there were, also, a student of the Electrical Engineering course.

³ As available on the webpage: <http://www.fnde.gov.br/programas/livro-didatico/guias-do-pnld/item/5940-guia-pnld-2015>

⁴ Experiments carried by one of the postgraduate students and presented to the students in the classroom.

⁵ The Project named *Respiração* is an initiative created by curator Márcio Doctors at Casa-Museu Eva Klabin, in which contemporary artists are invited to make temporary artistic installations/interventions since the relationship they establish with the museum-house space, with its classical art works collection and with its former owner history.

⁶ Photographs of images created by students in the classroom: https://www.dropbox.com/sc/uxz6h2rq9537s89/AADPaL9Rr3HRk6Ot9_BpTDrXa. Accessed: 30/Apr/16

⁷ Comparison performed by one of the classroom students when writing about their creation experience of images.

⁸ An excerpt of one of the texts produced during the "Cunhãntã" show creating process of Coletivo Cê and which was the material for the experimentations with the images carried out by the students.

⁹ The readings were "Introdução: Rizoma", from Mil Platôs book (DELEUZE, GUATTARI, 2011) and chapter "As máquinas", from O Anti-Édipo (DELEUZE, GUATTARI, 2014).

¹⁰ In this film, Eduardo Coutinho and his team visit a region in Northeast Brazil known as sertão; there, we can find several local residents who are encouraged to talk to the director. The dialog that goes on camera is something that allows us to think about the power of the cinema as being able to compose ways to tell – performances on camera – at the same time that it reveals to us the power of the spoken language in the formation of the senses, in the beauty of the sounds created by words, in the connections between fiction and documentary.

¹¹ https://prezi.com/m/fmvgam_1uzcg/?utm_campaign=share&utm_medium=copy. Accessed: 25/Apr/2016.

¹² https://prezi.com/ztabhdirzuvc/untitled-prezi/?utm_campaign=share&utm_medium=copy. Accessed: 25/Apr/2016.

¹³ <http://www.jigsawplanet.com/?rc=play&pid=0aa53e7ada3f>. Accessed: 25/Apr/16

¹⁴ The movie titled "Das(s) Terra(s) a(s) Lua(s)" can be viewed at <<https://www.youtube.com/watch?v=Sli1HNPxvLI>>. Accessed 30/Apr/16.

References

ARMAGEDDON (film). Direction: Michael Bay. United States, 1998.

DELEUZE, Gilles. **Crítica e clínica**. São Paulo, SP: Editora 34, 1997.

DELEUZE, Gilles. O esgotado. In: Deleuze, G. **Sobre o teatro**: um manifesto de menos; O esgotado. Rio de Janeiro: Zahar, 2010.

DELEUZE, Gilles; GUATTARI, Félix. **O anti-Édipo**. São Paulo: Editora 34, 2014.

DELEUZE, Gilles; GUATTARI, Félix. **Mil platôs**. v. 1. São Paulo: Editora 34, 2011.

DOCTORS, Marcio. **Projeto Respiração = Breathing Project**. Rio de Janeiro, RJ: Cobogó; Fundação Eva Klabin, 2012.

FIM E O PRINCÍPIO, O (film). Direction: Eduardo Coutinho. Brasil, 2005.

LAPOUJADE, David. **Potências do tempo**. São Paulo, SP: N-1 Edições, 2013.

VIAGEM À LUA (film). Direction: Georges Méliès. (Le Voyage dans la lune). França, 1902.

VINCENT, Guy; LAHIRE, Bernard; THIN, Daniel. Sobre a história e a teoria da forma escolar. **Educação em Revista**, Belo Horizonte, n. 33, p. 7-47, 2001.

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