**Abstract:** This article aims to analyze the series of engravings called *Passagens entre Paisagens*, in which different media are used, such as digital photography, the engraving of matrices, printing, scanning and reprinting of images on other media. These works present different granulations and textures, whose characteristics are problematized by the operations of contact between image-matrix and matrix-image, between traditional media and (re)mediation by numerical means; conceptual issues regarding the matrix, image and (re)mediation are addressed according to authors such as Vilém Flusser (2008), David Bolter and Richard Grusin (2000), Edmond Couchot (2003), among others.

**Keywords:** Engraving, Image, Photography, Remediation.

**INTRODUCTION**

The images present in our current culture are, in a broad sense, formed by the hybridization of different devices and technological means, modifying the way we perceive reality itself. They are technical images generated in the digital realm that, alongside simultaneity and speed, in their possibilities of insertion and circulation, provide new experiences in relation to space and time. We see the results of mediations in photographs, videos, movies and on the computer screen, whose images no longer have reality as a reference - which does not mean that the real is ignored - but in this passage from the analog realm to the digital media, there are profound changes in relation to the devices and image production sites. According to Vilém Flusser (2008, p.15):

> We no longer live, know and value the world thanks to written lines, we do now thanks to imagined surfaces. As the structure of mediation influences the message, there is mutation in our experience, our knowledge and our values. The world doesn't present itself as a line, a process, an event, but as a plane, a scene, a context.

Images from the digital context, considered as dot-built surfaces, do not occupy the same ontological level as traditional images, which are surfaces abstracted from volumes. In other words, in this process, there is no return from unidimensionality to two-dimensionality, but we rush from "one-dimensionality to the abyss of zero-dimensionality". It is not about returning from the process to the scene, but rather from the fall of the process towards the vacuum of *quanta* and thinking like "the surfaces that condense on this abyss" (FLUSSEr, 2008, p.16). In the *quanta* particles, zero *bits*, the zero-dimensional dots are not manipulable with the hands, but are calculated by the fingertips on the keyboard. In their differences, traditional images and technical images are shaped by the complexity of the gesture that abstracts the depth of something concrete, of volumes, as opposed to "techno-image that is produced by a gesture that regroups points to form surfaces, that is, by a gesture that goes from the abstract to the concrete" *(idem*, p.21).

In this perspective, technical images are the result of a series of numbers and calculations, disconnected from their material referent, from external reality, but connected to another media. In digital processes, data is numbered, which creates systems and visual effects that allude to reality, as we can observe in digital photographs, television, films, among other computer applications. The fact that numeralized images are automated suggests affinity with photography, although technical processing is different. With analog photography, the automatic process is mechanical and chemical, because the flow of light is focused on a chemical film, differing from the numerical image. The photograph, "preserves a fragment of time, but an image created inside the computer, resides nowhere nor in time" and, in this sense, images when numbered, abolish the boundaries between past, present and future (RUSCH, 2000, p.8).

The image properties change when they are numbered, however, the boundaries between analog and digital media are increasingly blurred. The relations between the production of images by traditional means and the production of images that emerge from virtual means are inverted. Every produced image is inserted, in the understanding of Flusser,

> [...] in the stream of images of a certain society, because every image is a result of symbolic codification based on the established code. Certainly: a certain image may propose new symbols, but these will be decipherable only against the 'redundant' background of the established code. The image disconnected from tradition would be indecipherable, it would be "noise." (FLUSSEr 2000, p.23)
The shift from analog photography to digital photography, however, is not just a technical issue. If we think of analog photography, for example, we can recognize "a continuity of matter between things and images" (ROUILLÉ, 2009, p.453), which is, above all, based on a physicochemical system. In digital photography the images are transformed into computer files, a product of algorithms and calculations, modifying the contact with the material reality of the world's things. The image, when inserted into the computer, is understood as a capture system that transforms the luminous information into electrical signals. In other words, the positive-negative chemical system, which is the basis of photography and its reproducibility, is eliminated in favor of a digital system where the image file, the product of algorithms and calculations, accessible through a computer and a specific program, no longer has any connection with material reality. (Ibidem).

The introduction of digital systems and the creation of computer archives exert transformations in the way they treat and manipulate the images and impel us to reflect on the idea of remediation and mediation, addressed by David Bolter and Richard Grusin (2000). In the study of these authors, the concept of remediation is an essential feature that defines the new digital media, arguing that all mediation is remediation. It is in this sense that, in the proposition of a new media, the former is always taken into account, that is, the goal of remediation is to reshape or rehabilitate other media.

What is a media? It is the media that remedies. It appropriates the technique, forms social meanings of other medias, and tries to rival or reshape it in the name of the real. The media in our culture can never operate in isolation, because it must come into a relationship of respect and rivalry with other medias. (BOLTER; GRUSIN, 2000, p.65).

The process of capturing an image with a digital camera, for example, does not involve the chemical process of analogue photography because it is an image recorded by photosensitive cells that only exist as traces of photons and electrons. Can we ask ourselves if an image, coming from a conventional, scanned photo inserted in the computer and digitally manipulated, is still a photograph or is it a digital graphic? We can say that digital photography can be as transparent as analog photography. The process of digitally scanning the light that enters the lens is no more or less artificial than the chemical process of traditional photography (BOLTER; GRUSIN, 2000). That is, in both procedures, there may be alterations or not in relation to its referential, since they involve different stages of manipulation.

In this respect, we might think that when darkening the color values of an image digitally scanned by the algorithm is an alteration in the truthfulness of the image, but that maintaining an analog negative for more or less time in the developing bath is not. For Bolter and Grusin, "the automatic or the quality deferred by the computer, prompts the observer to immediately contact the image" (2000, p.28), that is, the contact with a fictional reality, also implies, in association, the desire for transparency. This transparency is understood, on one hand, as the desire to go beyond the limits of representation and, on the other, the desire to find the real which is defined in terms of what the observer experienced. In other words, it refers to what is immediately evoked as an emotional response through the mediation of the image, causing the viewer to feel that the media has disappeared and the object presents itself as a real and authentic presence.

The desire for immediacy is a reflection of photography, that is, more than other arts, photography offers the immediate presence of the world. Photography is literally the emanation of its referential, the expression of loss, of death, because it is the emanation of a past that does not return (BARTHES, 1981). In Bolter and Grusin understanding, however, there is a dichotomy between digital photography and analog photography: digital photography is hypermediated, and analogue photography is transparent. Digital photography presumes the desire for immediacy and traditional photography promises to satisfy it. On the other hand, digital photography can be perceived, sometimes as transparent, and also express the desire for immediacy. At the same time, analog photography can also be reworked and combined with other photographs, even if it is a second-order expression, it is the representation of that desire. Photography, in general terms, refers to the expression by the desire for immediacy or the representation of that desire. In the immediacy, the search for transparency is identified, which tries to hide the environment, making the space unique (BOLTER; GRUSIN, 2000).

In this perspective, the different medias and contact procedures used in the production of the series Passagens entre Paisagens (Passages between Landscapes), don't
address just the creation of “new” images, but propose the breaking of the linearity of conventional codes set out previously in the field of engraving, and reverse the relationship between image-matrix and matrix-image. In these works, digital media and analogical processes (here referring to the traditional tools of engraving) are remedied and hybridized by the constant coming and going from one media to another. On one hand, digital techniques suggest a way to understand the difference between images considered as coming from reality, on the other, the numerized images still point to the claim of the immediacy of reality.

In this interface, the images produced by traditional means and the images resulting from the digital media are (re)mediated in operations that cause transformations in the visuality of the images. On one hand, we notice granulations of tactile embossings present in manually printed engravings, on the other, the granulations of surfaces printed by mechanical means are mediated by numerical dots and pixels.

**LANDSCAPES (RE) MEDIATED BETWEEN IMAGE-MATRIX AND MATRIX-IMAGE**

Poetic investigations presented in the series Passagens entre Paisagens are images involving photography, engraving and digital media. By employing different tools and technical devices in the creation of these works, we come across the possibility of interpenetrating and distending relations between image-matrix and matrix-image, which are constantly (re)mediated by the different steps involved during their production.

The first stage of the process consists of, from inside a moving car, photographically capture landscapes that are stored in files on the computer. Afterwards, the images are selected and manipulated with certain graphic features from Photoshop, in order to eliminate the effects of color and accentuate the contrasts between black and white. In this process, the images, when being digitally manipulated, are configured in dots and pixels, in other words, they are transformed into numerical data. In the circuits of the computer are inserted the different values of elementary dots, the pixels, that coincide dot by dot to a numerical matrix. That is, “the pixel plays the role of exchanger between the image and the number” (BOLTER; GRUSIN, 2000, p.161). In the exchange from the number to the image, however, operations are necessary for the creation of the numerical matrix to populate the image memory.

From that moment, the landscape-image is defined, which, when inserted into virtual reality, becomes an matrix-image (COUCHOT, 2003), which no longer shows any adherence to reality. As Couchot says, the pixel is the visual expression on the screen, of a calculation made by the computer, as instructed by a program. If something preexists pixel and image, it is the program, in other words, language and numbers, and not the real anymore (Couchot 1993: 42). In this respect, the numerical images do not represent the relative world, they are represented as simulacrum. The numerical visualization no longer maintains a physical and direct relationship with the real (COUCHOT, 1993). However, in this series, two questions arise: on one hand, there is a misalignment between the boundaries separating the real and the virtual, on the other, there is the occurrence of the connection and the interpenetration that hybridize the real and the virtual universe.

In digital media we can access each of the minimum dots of the image and interfere on its matrix structure, breaking with the characteristics of marks and traces of an image coming from traditional procedures. However, even considering these aspects about the possibilities of infinitely manipulating virtual images, also in other medias – here, in this case, the copper matrix – the images can be altered, however, these changes differ. In the virtual environment, all manipulated steps or layers can be preserved in computer memory, unlike analog or “manual” processes. When an intervention occurs in a matrix-image, the whole is always modified, there being no possibility of a return to the previous image, there is where lies the difference between the procedures that can be operated by digital means.

In the production of the series Paisagens¹ the (re)mediation between different means, causes that the images, coming from photographs of landscapes, no longer proceed solely from the radiation of a real reference. They are reworked photographs, which have become second-order images and no longer refer to the past in the Barthesian sense, although there is a desire that they still retain evidence of the referent, that is, the landscape. In this sense, we understand that

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¹ This series is configured by the production of 10 images engraved on copper matrices by the ink water process.
the landscape-image, after being digitally manipulated and printed on paper, is configured in an image-matrix, after being transferred and engraved on a copper plate by means of very particular technical procedures. However, in this exchange from the contact image to the surface of the copper plate, elements present in the visuality of the "original" images are also lost.

It is worth mentioning that in addition to the procedure of transferring the digital image onto the plate, the traditional technique of ink water is used, which consists on the application of a granulated resin, which has the function of protecting the copper from acid action. Because of the various applications and dip times in the acid, both engraved and non-engraved areas are generated, while simultaneously incorporating other elements that alter the image on the copper surface. These are operations that cover another temporality, until you bring up the internal image-matrix marks. It is a process that is not immediate, as in the devices used by the digital media. The matrix, only after inked and printed on a paper support, reveals the areas of concave and convex embossing that can be detected in velvety blacks, opposed to areas not affected by corrosion, consisting of white spaces. The image, resulting from the contact between the matrix and the support, is also inverted, at the same time, due to the adhesion of the ink to the paper, entrapments and losses occur in its positive and negative aspects (fig.1).

From the printing there is the direct involvement with the matrix, which allows us to reflect on the issue of the transmission of similarity as an anthropological paradigm (DIDI-HUBERMAN, 1997). The printing comes from the reproduction that involves the genesis of the form and counterform that, by the similarity, transmits and duplicates the marks and messages engraved on a matrix. These similarities are not mimesis, but refer to the duplication of equivalences of what is engraved in the matrix. That is, in the moment in which the images engraved on the matrix are printed on paper, we realize that the duplication of an equivalence of similarities occurs (BLAUTH, 2011).

In general terms, the metal matrix is formed by engraved and non-engraved areas where the recesses of concave voids receive the ink, and when these areas are inverted by the impression, we perceive the convex fillings that result in dense black areas in the image. These physical operations of contact from one body to another, however, are paradoxical, as the areas of whites correspond to the untouched and unengraved areas of the matrix, but it is on this compact surface - due to the impact of the printing - that the voids arise, especially, to the fullness of the blacks from the hollows engraved in depth.

However, what distinguishes the white from the engraving is not an void, like the white of the drawing. On the contrary, it is precisely the point at which the surface of the sheet rests on the surface of the paper, without a gap – it is the whole, sometimes evidenced by the impurities that one material passes to the other. Black, on the other hand, is the hole where the ink sinks: a mass that is as dense as the hollow in the emptiness that produces it. The alternation between full and void spaces is physical, bodily because it corresponds to the engraved and non-engraved areas of the metal sheet. The empty space comes from the full, as illusion of possible space and is reabsorbed by it (MAMMI, 2008).

The images of the series Passagens also require complex mediations of full and void spaces caused by distentions between the origin of the photographed landscape and the accidents incorporated during the process of (re) mediation of the procedures adopted in the creation process. The photographic capture intends, above all, to mimic an instant of the real, but in these different passages through various medias, losses and accidents occur, whose vestiges allow the coagulation of new images-landscapes.

Figure 1. Lurdi Blauth, Paisagem I, 2012, calcography, water-ink, 20 x 30 cm. Author’s photo.

2. Iron perchloride is used.
However, after the images have been completed by the traditional engraving and printing procedures on paper, the printed images are again photographed, processed numerically and printed on a canvas support by means of photo-chemical processes. These images, (re) mediated through digital means, lead us to think about the different characteristics between grains and embossings produced by traditional means and those that result from remediating or transcoding with other means. The images of these engravings, when digitally scanned and inserted again in the computer, above all, lose the adherence with the initial materiality, transforming into a *matrix-image* of a missing material, an image without matter. Although, again, image manipulations are possible using computer tools, intentionally, no new interventions are performed, only the scale is resized to allow printing on another canvas (Figure 02).

The engravings of the series *Passagens entre Paisagens*, when inserted in the memory of the computer, have their initial characteristics transformed into numerical values, whose devices allow to remedy the relation between image and the represented object. In such operations, we realize that the implications between various technical contact procedures refer to traces of landscapes, whose markings reveal, in a certain way, the properties of the image of an original engraving. However, it is possible to perceive that the remains were amalgamated and reconfigured through the different procedures, which also leave the marks of their differences and specificities, hybridizing engraving, photography and painting (due to the use of the canvas and the assembly on a frame). In this study, therefore, we propose to address questions that involve the concept of remediation⁴, to reflect on the transformations caused by the constant remodeling and interrelation between the procedures adopted in the production of these works. This series is operated by a series of gestures and actions that seek to mediate and (re) mediate numerical means and manual engraving, generating analogies between similarities and differences between computer pixels and micrographs of traditional engraving. They are images that interweave granulations that are also translated and communicated by numbers, whose visualization is no longer linked to a real referent, but to processes that subvert the limits of the different means employed during the course of creation.

In this poetic investigation, the images articulate continuities, which are shaped by the interaction between the specificities of the different medias, in which, simultaneously, the discontinuities are incorporated through the ruptures of the uniqueness, when the engravings are again digitized, modifying the relations of single and multiple, in its possibilities of reproduction of *matrix-image* and *image-matrix*. In the landscapes-images from copper matrices, surfaces that occupy micro-embossings between concave and convex are perceived, requiring a tactile eye of the viewer. In the digital and printed on canvas images, we can see surfaces constructed by infinite dots that imitate the images of the engravings and, in a certain way, confuse the view of the viewer who, in front of the work, tries to identify grains of a traditional engraving, of a photography, or even a painting (Figure 3).

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3. The metal engravings measure 20x30cm and the images of the numerated engravings were enlarged to 68x100cm.

Although traditional images and images from digital media have the same meaning, the meaning is often different. The interweaving of media and languages promotes an openness to a complex regime of re-significances that shifts the delimited autonomy of the various fields of knowledge. According to Flusser (2008, p.71), "the meaning of traditional images is to arrive (to guide oneself in the world) and the meaning of technical images is to follow the arrow (to give meaning)". That is, the technical images are the result of the production of signals from the world picked up by a certain device that are reflected in the form of vectors of meaning. However, they are not signals, but only the raw material from which the images are reproduced. The devices are not reflectors, but projectors. They do not "explain" the world, as traditional images do, but "inform" the world (ibidem).

Before operations with already programmed purposes, other possibilities that open up and that impel us to constantly rethink about the systematization of the codes already delimited by the different technologies. Regarding this, "what makes a true creator, rather than simply submit to the determinations of the technical apparatus, is to continually subvert the function of the machine or the program that it uses, is to drive them in the opposite direction to their programmed productivity "(MACHADO, 2007, p.14).

The images of this study, therefore, cover a processuality of different devices present in technologies that perhaps explain or inform procedures that seek to re-significate or (re) mediate the multifaceted and complex field of art. In other words, the function of art in today's technocratic society may be to refuse to submit the logic of labor instruments or norms to reinvent their functions and purposes, resulting in hybrid processes. They are distinct creation processes that are not delimited by a single system, but from a perspective of intersections and contaminations, that sometimes merge in the same image and sometimes allow the changing and merging of different media and languages.

**BRIEF CONSIDERATIONS**

In the production of the series *Passagens entre Paisagens*, the calcography procedures allow the images, while suffering the action of acid, to penetrate the body of the *image-matrix*, revealing the idea of permanence and uniqueness of engraved areas of intense blacks and white, which correspond to the non-engraved. The analogies to the procedures of images printed in direct contact with the copper matrix refer to their material nature of marks and embossings. The resulting images of the *image-matrix*, in a certain way, simultaneously explain the paradoxical exploration that allows to (re) mediate the different technical resources used during the creation process. We found that in the scanned images, there is always the possibility of infinite interaction in the computer screen, which allows to expand its scale dimensions, its intensities and contrast densities in blacks and whites.

In the poetic production of these images, therefore, the technical means of engraving implicate procedures of impression by the contact between *matrix-image*, between *image-matrix*. At the same time, the original procedures are questioned, especially in relation to the idea of duplicating and multiplying the uniqueness of an image engraved on an matrix when it is again photographed and inserted in the computer.

In these works, especially, there are signs that evoke the presence of vestiges or marks of absences, (re) mediating the contaminations caused by the intersection of the different procedures. In a migratory process of different procedures, the images engraved sometimes acquire new granulations between grays and blacks, sometimes bring themselves closer to contrasts of light and shadow of the indicia captured by the original photograph. Intermediations are tensioned, since what is being visualized by the viewer is the result of remediation between different technical resources. At the same time, we can say that the engraving allows other paths to be tensioned through the constant interaction in their hybrid probabilities that extend the delimitations of already internalized codes.

Contemporary graphics, therefore, besides using the traditional materials of the engraving and continuing to use engraving as engraving, also proposes the breaking of the purisms employed to introduce other relations between different areas of knowledge, generating transformations in its basic concepts. The images of this series of works are the result of a mixture of different technical devices and
technological appropriations, which in turn are not indifferent to the means employed, since they are embedded in new concepts and ways of thinking about the aesthetic visuality of today's art.6

REFERENCES


Lurdi Blauth: Artist, teacher, researcher. PhD in Visual Arts by the Graduate Program in Visual Arts at UFRGS, 2005, with a PhD-sandwich at the Université Paris I Pantheon-Sorbonne, France, 2003. Lecturer in undergraduate, postgraduate courses in Visual Arts; leads the research project Imagem e texto: inscrições e grafias em poéticas contemporâneas (Image and text: inscriptions and spellings in contemporary poetics), Feevale University, Novo Hamburgo, RS. Performs solo exhibitions and participates in group exhibitions, both national and international.

(*)This text was submitted in 2015.

5. This poetic investigation presents partial results linked to the research project Image and Text: inscriptions and spellings in poetic productions, (Image e Texto: inscrições e grafias em produções poéticas) which has as one of its objects of study, to reflect on the processes of artistic creation that deal with the incorporation of visual elements and configured technological devices by hybridization between different media and languages.