

museums in  
NETWORKS of development

Detangle

Olira Saraiva Rodrigues



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# Preface

The warm color, the most intense of all, is identified not only by our vision but by our synapses. The trilogy Retell, Entwine, and Detangle, whose acronym refers to RED, is of similar intensity to the author who subscribes to them.

To scrutinize and cross the culture, Olira Rodrigues turns, stirs, and pokes, provokes twists and turns as she defends her readings about a time, the contemporary zeitgeist, linked to the museum, the object around which the three books orbit. **Museums in NETWORKS of development**, the trilogy, present themselves with the breath of an

epic, the epic of a thesis developed at the Post-Graduate Program in Art and Visual Culture of the Federal University of Goiás.

By inquiring, through her attentive gaze, about museums, their configurations, and reconfigurations, the author moves in time, in diachronic and synchronic observations, with particular attention to technology. In doing so, she distances herself from a mere relation of causality. She singularizes her discourse, instituting the polyphony of voices of time, spaces, and their objects, entangled in networks, implicated in moorings and liberties.

More than a reading about ways of retelling (Retell), interweaving (Entwine), and untangling (Detangle), the trilogy bends throughout the culture. It needs to be apparent motivations, densifications, and pulses.

The first volume, "**Retell: Museum in Evolution**" keeps an accurate seam about history, punctuating motivations, conceptualizations, and configurations of museums, from the Louvre and Smithsonian models to the most modern concepts of Atlas,



the one that bears the weight of the world. Before gaining time, the volume scrutinizes the space institution's formation and formal actions. This weaving results in a composition of diachrony that catapults the reader to the next book, "**Entwine: Networks**".

The second volume invites the reader into a weft, an amalgam of networks, systems, and rhizomes, whose flows, reflows, and reflexes suggest emergent technological links between humans and non-humans. The means have as a principle to reach the end. Although these wanders, intermingled with present and past, vectors that draw the imagined dazzle of the future crookedly.

And the end, at least of the trilogy, comes with the third volume, "**Detangle: Redesigning the Museum**". Here, the problematization is formed with a more excellent body, feeding on the previous volumes to analyze the anatomy of the present museum, its biometry, and its kinetic physiology. Spaces and times could summarize this foray, although one needs help to think of summaries of times and spaces. The volume provokes, like a storm that rages in the forest, new approaches

to museums, redesigning songs, chants, and past steps, traces of a future we stubbornly want to build, which we call Culture.

Cleomar Rocha

# Presentation

## Museums in NETWORKS of development

The relationship between the museum and the world has always affected human sensibility, and this affectation has intensified in contemporary times. While the future is imagination, the past glides in our memories, and we keep trying to fill our past narratives, making them unshakable over time. Museums contribute as guardians of the social past and go against the marks and consequences of the course of time. And, as subjects in this process, we are affected by this temporal storyline, appropriating a space in this world in the face of all temporal phases.

The trilogy **Museums in NETWORKS of development**, which arises from thesis research, leans on the potentialities of cultural environments, with the specificity in museums, after the establishment of modernity, a consequence of scientific-technological advances in the social context. As a fertile ground for studying social and cultural evolution, the museum slides in moving limits with the insertion of technology in an informational way, exposing poetics and aesthetics – sometimes materialized, sometimes projected in subjectivities – the discomforts and tastes of society.

It is worth clarifying that, in this trilogy, the museum is, in a broader sense, considered as a space for the socialization of knowledge, where one discovers, learns, expands knowledge, and deepens the consciousness of identity; and, in a more specific sense, a territory of interaction, facing sensations, ideas, and images irradiated by objects and referential.

Thus, the noun "museum" is identified as a space of interaction with the possibility of socializing knowledge and subjectivities. The characterization

of the study of museums, acquired in the expression "in contemporary contexts" – or it can be replaced by the temporal adverbial locutions "nowadays" or "in the twenty-first century" – indicates the material cut of the object of study, the period proposed for analysis, which qualifies a possibility of actions that go through formatting, connectivity, culture, and language studies, determined in a socio-communicational change of information flows and interaction.

The title of the trilogy, **Museums in NETWORKS of development**, enables a polysemic reading through various prisms: museums in networks, as well as the involvement of museums with network formatting, and even museums in reiterated development, following the changes arising from aspects of modernity. This writing indicates an expansion of museums in this sense in the face of numerous pointed indications. In a way, the research enables, in its evolution, the formation of a semantic context that leads to plural interpretative paths, such as the network conception itself.

The network formatting for museums formally indicates the contemporary context. The museological cultural institutions have reformulated their communication modes with new languages and forms of interaction – which sometimes incite strangeness – besides seeking to adapt to this cultural contemporaneity, updating their configurations with agglutinating ways. Thus, flows and relationships are fundamental to tracing museums in a network.

The trilogy is composed of the first volume, **“Retell: Museum in Evolution”**, which describes the historical path of museological institutions. The second volume, **“Entwine: Networks”**, proposes a study of network museological configurations. It describes the structuring of museums by nuclei – independent of the area category – from art museums to science museums, morphology, anthropology, natural history, and scientific museums, among many others. Although there is a space for discussion regarding evolution, in which art museums are highlighted, the trilogy in question is not restricted to studying the networking of art museums, thus covering all other species. Finally, the volume **“Detangle: Redesigning the Museum”**

concentrates on notes on the distance between theory and practice, verifying a gap between intention and action.

The three volumes – **R**etell, **E**ntwine, and **D**etangle – form the acrostic RED, like the color in English, in a sense of passion for the object of research, throughout its construction, symbolically with epistemic sacrifice (blood), for its exercise of hard work (fire) in analysis and reflection.

This exercise of interpretation of meanings made me feel like a researcher and an artist of this web that the work handcrafted entangled, given my background in Culture, Education, Language, and Technology.

Olira Saraiva Rodrigues





# Presentation

## Detangle

The volume "**Detangle: a Museum REDESIGN,**" as the stitching of the Museum trilogy, recognizes situational context as essential for reflecting on the museum and contemporaneity as intertwined concepts. Contemporaneity has brought about a series of changes that are now finally emerging for an update. This volume seeks to understand such changes in museums, which undergo a revision of function and structuring as institutions. Through this context, it is possible to approach both a historical-political and sociocultural perspective,

providing a specific dimension to the relationship between time and space.

Museums, considered institutions grappling with an identity crisis in the present day due to the presence of a past that projects into the future, have been exploring new functional perspectives, rethinking the foundations and roles in the triad of past, present, and future, which proposes a critical exercise to verify the vector of development.

Currently, museums undertake simultaneous tasks in dialogue with the past, preserving history, and in dialogue with the future, dedicating themselves to certain intangible and timeless elements. From these aspects, the discussion takes shape in interdisciplinary research embedded in intellectual crossroads.

Contemporary art and culture authors and scholars<sup>1</sup> have been discussing museums' issues in the 21st century, resulting in a reinterpretation of approaches involving space, time, culture, memory,

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1 Priscila Arantes (2015); Giselle Beiguelman (2014); Manuelina Maria Duarte Cândido (2014); Manuel Castells (2015); Diana Domingues (2009); Hal Foster (2015); among many others.

and other distribution, interaction, and technology processes.

In the face of these perspectives of restructuring, museums open up possibilities for unfolding with the aim of new configurations of museums in the 21st century. We are experiencing an era of museum changes, whether through technological integration, thematic choices that sometimes depart from the past or modes of linkage in nuclei and systems.

Thus, the trilogy is woven through an investigation with interconnected themes such as museums, networks, systems, communication, information, education, visual culture, technologies, and experiences, amid plans, programs, projects, and actions. It is a research encompassing theories, concepts, practices, ruptures, characteristics, phenomena, dialogues, analyses, positions, philosophical currents, complexities, and many other resources underpinning an investigation.

With the delimited research theme of museums formatted in networks, this volume is constructed by taking the network structure as the axis of

investigation, which drives toward a theoretical-conceptual and methodological study of a type of formatting in nuclei that flourished in modernity.

The work interferes with the social, political, cultural, and economic contexts in reorganizing the network constitution of museum institutions. Furthermore, it proposes a dialogue with Visual culture as a theory to reflect on the changes in how museums are being conceptualized and practiced based on these new network formats and technological and symbolic configurations present in contemporary times.

In this way, it leans towards discussing the concept of transdisciplinarity as a disciplinary model proposed for museums in the 21st century through new operational structures and systems of interaction between areas of knowledge.

The network formatting for museums is indicative of the contemporary context. Museological cultural institutions have been reconfiguring their modes of communication with new languages and forms of interaction - which sometimes provoke estrangement - while seeking to adapt

to this cultural contemporaneity, updating their configurations with cohesive modes. Thus, flows and relationships are fundamental to mapping museums in networks.

From this perspective, it is crucial to consider that culture is a dynamic field for constructing aesthetic experiences, not limited to the domain of art but occurring in every aspect of our daily lives as we capture and create new correlations of life that distinguish our way of thinking.

Therefore, a reflection on Visual culture is relevant in this study, considering that the human experience is increasingly exposed to visible and invisible processes central to contemporary culture. Interpreting them makes human beings more engaged in the research process criteria.



# Dialogues: Visual Culture

Non-formal spaces of education, such as museums, for example, in contemporary contexts, have been concerned with the reflections on Visual Culture. In Visual culture, such areas have been mediated as a public art interface as a culmination of production processes and exhibition of works, dealing with issues related to the image as places of experience.

Visual culture presents conceptual divergences in its concept. According to Meneses (2003), as of the 1980s, the field of visibility has expanded into a cultural dimension of contemporaneity.

The spread of electronic communication and the popularization of visual media force the search for new parameters. In other words, there is a displacement in the interest of historians from iconography/iconology simply to a dimension of life and social processes.

For Monteiro (2008), the image, in the context of Visual Culture, contributes to understanding social change processes, as it refers to fundamental cultural and political issues. Through its analysis, it is possible to understand the changes and transformations different social groups have gone through. Knauss (2006), in his text "The Challenge of Making History with Images: Art and visual culture and Disciplinary approaches - art history and image," points out a series of definitions for the concept of Visual Culture.

There are two conceptual roots for Visual Culture: one restricted, which corresponds to Western culture, marked by the hegemony of scientific thought (Chris Jenks), or the culture of recent times, under the dominion of technology, characterized by visual media, in a hybrid and multidisciplinary field of artistic, scientific and technological domains



(Nicolas Mirzoeff) and another comprehensive, corroborated by numerous authors, which considers Visual Culture to think different visual experiences throughout history in various times and societies.

There are no longer borders in the sense of barriers and limits but spaces of transit, as changes and displacements in the forms of exhibition, production, and reception of images. The relationship with technology, exhibition spaces, format convergences, and creation strategies are examples of such changes. Preliminarily, Visual culture is not limited to visual or plastic arts. According to Campos (2012), there is a comprehensive understanding that,

[...] the visual culture of a community or people would be constituted not only by its pictorial and graphic creations but, equally, by the visual grammar and its forms of communication, as well as, by the social, cultural, and symbolic relations that are established in the scope of the manufacture and sharing of visual goods (Campos, 2012, p. 21-22).

Visual culture encompasses registration, advertising, design, and scientific images, among many others. Thus, becoming an area

that welcomes artists to researchers in all fields of knowledge. This analysis of Visual Culture, which expands theoretical and methodological bases, broadens the history of visibility itself in connection with other theories and methodologies. Mitchell (2002) questions the boundaries of Visual Culture or Visual Studies by a bureaucratic aspect, causing an "ossification of thought<sup>1</sup>." According to Mitchell (2002):

What is visual culture or visual studies? Is it an emerging discipline, a momentary passage of interdisciplinary turbulence, a research topic, a field or subfield of cultural studies, media studies, rhetoric and communication, art history, or aesthetics? Will it have a specific object of investigation or be a collection of established problems as a discipline? What will be its boundaries and definitions if it is a field of study? Should it be institutionalized by a department as an academic structure, receiving for this its programmatic status, with all the right to curricula, textbooks, prerequisites, requirements, and grades? How should it be taught? What would it mean to teach visual culture in a way that is more than improvisation? (Mitchell, 2002, p. 231).

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1 Term coined by Marquard Smith, in the text "Visual Studies, or the ossification of thought." In: *Journal of Visual Culture*, Vol 4(2): 237-256, 2005.

Further, Mitchell (2002) presents the breadth of the field of inquiry, defining the concept of Visual culture as an opening for dialogue with other disciplines.

What, after all, make up the domain of visual studies? Not only art history and aesthetics but scientific and technical imaging, film, television, and digital media, as well as philosophical investigations in the epistemology of vision, semiotic studies of images and visual signs, psychoanalytic investigation of the scopophilic drive; phenomenological, physiological, and cognitive studies of the visual process; sociological studies of spectatorship and viewing, visual anthropology, optical physics, and animal vision and so on. If the object of visual studies is what Hal Foster (1987) calls *visuality*, it will have such a broad scope that it will be impossible to delimit it systematically (Mitchell, 2002, p. 233).

In this way, Visual Culture considers the perspective of action in other areas of knowledge, which are not restricted to the arts. It is, appropriately, in a strategic position combining culture, image, and language.

Campos (2012) understands Visual Culture "as a system in which the ways of looking at and visually representing what surrounds us are historically

and culturally shaped" (p. 23). Given this, visual is understood as everything produced can be seen and interpreted according to the time in action's communicational, functional, or aesthetic intention.

In this way, it covers not only the processes of production of visual artifacts and visual communication but also the particular way in which the relationships established in the sphere of the visible are processed. Who looks at what and in what way are central inquiries to understand the visual culture of a given historical period or social clipping (Campos, 2012, p. 23).

The image has an important place in the social context, as a crossroads of past, present, and future times, meanwhile a place of questioning. The author advances the concept of Visual Culture from three pillars:

In short, visual culture can be understood, firstly, as a visual repository associated with particular collective contexts, where certain visual languages and signs are elaborated and exchanged; secondly, as a way of apprehending and decoding (sic) reality visually, taking into consideration the cultural and psycho-social nature of perception and cognition; and, thirdly, as a system composed of a technological, political, symbolic and economic apparatus, framed within a broader sociocultural and historical horizon with which it coexists, which it helps to shape,

as it is configured by it (Campos, 2012, p. 24, our emphasis).

This approach aims to dialogue with Visual Culture, as a theory, and reflect on the changes in the ways the museum has been thought of and practiced from these new network formatting and technological and symbolic configurations present today. The proposal is to ponder how the network configuration has been modifying museological institutions in spaces that interact with their users. Spaces are sometimes considered a purely educational environment, but much more than that, as culture, fun, entertainment, appreciation, and involvement for dialoguing with the public/user.

When the museum exhibits images from its collection, there is an extrapolation of art, and the images do not require Walter Benjamin's concept of aura. Therefore, museums not classified as art museums communicate with images that do not deal with art objects; they are an extensive repertoire of objects that are not restricted to the field of art. Given this premise, the approach finds a transdisciplinary vision unfolding in art

and culture in various sectors, mainly in language and communication — a study of images and visualities, with their processes of reception and production of meaning.

The focus of Visual culture is everyday life, and everyday life is dynamic. That is, Visual Culture is not static. It is an area of knowledge in constant transition. According to Flores (2012), revising beliefs is crucial in studying Visual culture, justifying that belief and interpretation are intertwined. As for beliefs, the author, in his text *Beliefs in Vision*, draws a parallel with the processes of believing, reviewing, and defixing, the first being security; the second being doubt and uneasiness to what is already set; and the last being the act of stripping ourselves of our habits, of all security that belief causes.

The author reveals the need for precise attention to visual beliefs to demystify their universalism and naturalness, effected in defixing and generating dissent.

In the often called "age of images," the need has been consolidated to learn to "read" images, to apprehend the knowledge and cultures from which they emerge, as well as the visual beliefs for which

they are programmed. This has been signaled by the greater consolidation of disciplines such as visual semiology, visual studies, and image theory that have contributed much to demystifying its universalism and naturalness, as well as to raising awareness about how the meaning of the image is constructed by its equipment, its mediations, and its reception (Flores, 2012, p. 48).

How the author portrays an awakening of consciousness in the face of learning to read images while reviewing beliefs is consistent with the assertion of an emancipatory vision since the viewer starts to present the community power of an active interpreter.

The philosopher Jacques Rancière (2012), in his work "The Sharing of the Sensible: Aesthetics and Politics," proposed to elaborate a meaning for the term aesthetics as being:

A specific regime of identification and thinking of the arts: a mode of articulation between ways of making, forms of visibility of these ways of making, and modes of thinkability of their relations, implying a certain idea of the effectiveness of thought (Rancière, 2012, p. 13).

For him, producing unites both the act of making and the act of making visible. Given this process,

he defines a new relationship between making and seeing by a pedagogy of experience with an emancipated spectator.

The sharing of the sensitive presents this emancipated spectator, who does not accept any "share," who does not passively accept everything that comes to him, who becomes aware of the process of information and knowledge as regimes of control and adopts a dialogic posture, besides provoking dissent, crucial, even, in research. In this model, perception is never passive but interpreted, whose knowledge is always built, reaffirming in a dialogical way.

The emancipated spectator emerges from this emancipating vision in a new proposal to look and break with the discourse of a hegemonic culture through critical interpretation, which treats art and image as sociocultural narratives - Narrative Turn - in the context of several social practices. The act of interpreting becomes as authorial as producing, but it is not a matter of neglecting the context in which the images are made.



Regarding images, when they reach a social repertoire, they are called visibility. This means there is social legitimization since visibility is contextual and linked to the relationship between time and space.

In other words, the images in the sensible typical cut of the community, their visibility, and their disposition are in the relationship between aesthetics and politics. An aesthetic that is stereotyped and formatted by institutions in the face of standardized criteria, in which for the sensitivity to become visible, it must be legitimized.

Verifiably, the ways of sharing have expanded with the "boom" of modernity. In this case, there is a subversion. Spaces are created, and modalities with new sensibilities are developed. As a new modality, the network formatting in museum institutions has used the spaces to provoke new experiences.



# Culture and Sensitive Experience

From the point of view of some authors, one can attempt to address the issues of congruence that this study addresses. Thus, it was intended, in the development of the approach, a critical understanding of the perception of visualities, the interaction, the reaction of the receiver to the images, and the processes of meaning in the context of visual and media culture.

In the first instance, culture is understood as a transit space, a fluid space that can make compatible, establishing relationships between power and emancipation. There are no longer

fixed borders, boundaries shift, and new ways of thinking with art, new forms of theory, and experimentations emerge.

Experience for Dewey was the interaction or transaction between organism and environment. This interaction takes place through procedures of experimentation and familiarization, making the organism able to cope with the demands and pressures it is subjected to (Fogliano, 2017).

Experience, when sensitive, encompasses both the perception of the world and the interpretation of the products of perception. There is, in a way, the need for a process of revision of beliefs, for de-fixation to what is already set, and for the generation of disagreements in the aesthetics of the flow proposed by Arantes (2007).

Perception is not passive in this process, and the act of interpreting becomes as worthy as the act of producing. Reformulating, we live in an era of dislocations of daily sensitive experiences and visuality allied to modernity, creating new personal and intersubjective experiences in the formation of new spaces of sensitization.

Visual media present a potentiated image, creating new sensitization spaces with a playful and artistic facet of language. Participant subjects are summoned, the same agency subjects of Machado (2002b), (re)creator spectators, presenting a role of co-authorship.

Technology composes Visual Culture with an emancipatory intention, facing the production/use and the creation/reception of art in the exercise of sense production. In this desideratum, a proposal is created that breaks with a reproductive and brutalizing vision and generates scenarios of dissensus in an “emancipatory perspective” (Aguirre, 2011, p. 70).

The new spaces, such as museums, for example, have gone through a historical process of evolution as a confrontation in this contemporary context, in the formation of sensitive and critical spectators, who reflect the emancipation and the ability to generate dissensus in a transformative and liberating function before a world under construction.

The digital culture, belonging to contemporary culture, spreads under the impact of digital technologies and networking in these museum environments, which are facing a cast of new uncertainties, displaying a formidable diversity in the conjuncture of a world of augmented reality, mobile media resources, distribution, and sharing.

Art today overflows all boundaries. Computational attributes expand contemporary art, and artists are ahead of their time. The binomial, visuality, and modernity narrow and converge in creative artistic practices of mixed realities. Two classic examples, one by artist Eduardo Kac and the other by artist Jeffrey Shaw, demonstrate ingenious and innovative exercises in contemporary art, proposing new forms of visuality.

Eduardo Kac presents a fluorescent rabbit<sup>1</sup> with the work GFP Bunny (Green Fluorescent Protein), which redefines aesthetic criteria beyond the boundaries of our categories, emitting green light under blue light. Facing its visibility and invisibility, Kac proposes new visualities as a new form of

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1 The Alba rabbit has never left the lab, so it has never been seen publicly.

modern art, innovative and unusual, arising from the use of genetic engineering, with conceptual implications in science, technology, and aesthetics.

Jeffrey Shaw's "The Golden Calf" is an analogy to the biblical golden calf. In contemporary work, the calf<sup>2</sup>, in virtual reality, is the new idol of modern times. "The Golden Calf" is an invisible work. Above the pedestal, there is a void, and only a screen lies beside its absence. Through a material void and a digitized version of the calf, the process of visuality of the work is established. The allusion to the biblical golden calf worshipped as a god by the Israelites is updated in his work, coated with technology, an idol of this current period.

Santaella (2017), in his text "Ignitions of contemporary arts in the speculative turn," presents some examples of contemporary art, starting with the work *Timeless Alex* by Eduardo Navarro (2015). "While crawling and carrying over the entire back this shell, the artist tried to inhabit the consciousness of the imitated reptile, in a kind of self-hypnosis" (Santaella, 2017, p. 78).

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2 Technology is the new golden calf.

The work of the Argentine artist, as contemporary art, brings to consciousness the timeless concept of animals, which move through the world without a temporal boundary.

Unquestionably, immersion is also an experience, and as experience instigates us to presence, linked to a space. The proposed approach to studying immersive processes takes as its premise the sense of immersion, well designated by Janet Murray (2003) in her work "Hamlet on the Holodeck: the future of narrative in cyberspace," which conceptualizes it as:

A metaphorical term derived from the physical experience of being submerged in water [...]: the feeling of being enveloped by a completely alien reality, as different as water and air, that takes hold of all our attention, of our entire sensory system (Murray, 2003, p. 102).

The concept of immersive, according to Murray (2003), in the face of the metaphor of diving, and the concept of liquid, according to Bauman (2003), under the idea of fluidity, to the point of flowing and sliding complement each other, as opposed to the solid society said by the author, which has no resilience and does not adapt to new forms.



Arantes (2007) deals with this aesthetics of flow, of liquid languages, of the flow of signs, of fluid situations, in a rupture with fixed forms of the said solid society, bringing about a new way of living, whether in learning, in actions, in feelings, in affectivity, among others.

In this sense, immersion is not necessarily experienced in immersive spaces but in everything that, in a certain way, involves us completely, in focus and depth, exploring all our sense organs. A simple act of enjoying a song, a moment of reading, specific studies, or attentive tasks at work - or not - is characterized by immersion.

However, with technology's help, immersion is possible in the immersive environment in a narrative and technological pattern and presents new narrative forms with 3D visualization and immersion systems. A way to capture the receiver's attention, giving way to further communication with digital language and aesthetics.

As an example of an immersive space, CAVE (Cave Automatic Virtual Environment) is an interactive virtual environment projected by graphics in three

dimensions. Cave is an allusion to Plato's Cave, relating to the fact that the visual reality differs from the presented one.

Machado (2002b) portrays "the agency subject, a subject that dialogues, that interacts with the images" (p. 15). For him, the agency is the experience of an event as an agent subject, and the immersion regimes in specific spaces allow the creation of a vibrant tension between different degrees of involvement of the spectator in the incorporation of a look already present and foreseen in the image, assumed when penetrating the system.

It is considered, therefore, that the artistic object allows new configurations and incorporates new meanings, both at the moment of production and fruition. In this way, the forms of imagetic representations in Visual Culture deserve to be considered concerning technology, receiver, and narrative forms.

For Grau (2009), "immersion is, without a doubt, the key to any understanding of media development" (p. 30). In interactive media, the producer or receiver shares a sensitive construction. These

are new sensitivities in the face of new modes of experience.

There is an interaction between the regimes of pleasure and knowledge in these new non-formal spaces of education, whose function even allows us to educate in contemporaneity, as a dissensus, not as a conflict of ideas or feelings, but as a conflict of many regimes of sensoriality. In this approach, the sensory experience results in an experience of dissent, which is opposed to the mimetic or ethical adaptation of art with social ends.

Immersive spaces give a new meaning, reducing what is represented before its emotional involvement. Given this, the sensory experience is understood as an affectation, an experience acquired through sensitivity. That is, that one learns to perceive from the sensory organs.

In these environments, the audience becomes an effective part of the artistic process even more. According to Machado (2002a), "in digital media, we are faced all the time with a world that is dynamically changed by our participation" (p. 1).

Contemporary museums propose countless challenges, such as the strengthening of this institution, via articulation, as well as with sensory experiences and formatting appropriate actions to enhance dialogue, knowledge, and interaction.

# Disciplinary Confluences: Visual Culture and Phenomenology

The definition of discipline is essential to introduce the concept of multi, inter, and transdisciplinarity. Previously, the term discipline belonged to the same lexical family as the term disciple, expressing the follower, the student, or the learner. Consequently, the concept of discipline is associated with teaching and instruction, culminating in knowledge production.

There are countless articulation possibilities among disciplines in opposition to the monodisciplinary model. In the middle of the 20th century, the bridge between different disciplines emerged,

and in 1979 Jean Piaget proposed the distinction between multidisciplinary, interdisciplinarity, and transdisciplinarity.

The first perspective assumes the most basic level of disciplinary interaction. A research problem is shared without internal changes in the disciplines involved. In the second option, reciprocal processes are produced, with interactions and scientific enrichments taking place between the disciplines. Finally, in the third case, operative structures and systems are created that enable an authentic disciplinary transformation (Pablos, 2006, p. 68).

Undoubtedly, all the structures above go beyond the disciplines in different processes. According to Pablos (2006), "the notion of transdisciplinarity emerged to provide the transit between the different compartments of contemporary knowledge, enabling a more comprehensive knowledge, by being more interactive" (p. 68). Intellectual globalization has been established, consisting of opening academic society to integrated knowledge. This new field has brought, in turn, new methodologies and challenges, redefining rigid systems of knowledge.

Etymologically, the term *trans*, as a prefix, refers to what is between, through, and beyond. With the addition of the primitive lexical term *disciplinary*, *transdisciplinary* means something that crosses and goes beyond the disciplines. There is an intercrossing of disciplinary boundaries, changing the term boundaries that are fixed by beacons, which move according to the procedural dynamics of dialogue of knowledge in the integration of knowledge in open rationality.

Transdisciplinarity does not seek dominance over the various other disciplines but the opening of all of them to that which crosses and surpasses them. The sustaining point of transdisciplinarity lies in the semantic and operative unification of the meanings across and beyond the disciplines (Freitas et al., 1994, p. 2).

Transdisciplinarity, thus, reveals a breadth of perception. The concept broadens the path of evolution, a liberating action from dogmas and precepts. There is, in this way, an interpreted perception, not passive, whose knowledge always builds up, reaffirming, in a dialogic manner, in a subversive scenario, to the extent that the act of going beyond the integration and articulation

of the disciplines may cause the generation of dissension.

Coexist areas considered problematic undoubtedly benefit from this archetypal flow of disciplines. Thus, the configuration of multidisciplinary teams favors the approach of contents and objects of study and, mainly, the transit between the disciplinary areas. From this junction of sciences and conceptions, ideas emerge, dialogues emerge, and data articulate among themselves in front of a collective view, proposing a detailed investigation of knowledge.

Innovation concerning integration and articulation occurs in the transdisciplinary model. Rocha et al. (2013) state that "by consulting the literature, we observe that the term innovation has been used in the field of education since the 1970s of the twentieth century and is associated with the idea of improving the conditions of situations" (p. 211). Although the term has been used since the 1970s, there is no history of renewal, improvement, advances, or new possibilities, in the short, reformulation of methods; the monodisciplinary model remains. When subtly presented, they were



self-limited, far from an ideology of access to knowledge from multiple areas, understanding diversity, and theoretical pluralism.

Knowledge starts from information because it presents a cognitive dynamic in environments of constant informational flow. "Environments where the reader transits entangled in a networked knowledge, pointing to a direction in which theories and concepts are interconnected" (Goudart; Guimarães, 2015, p. 176). Multidisciplinary, interdisciplinary, and transdisciplinary environments, whose connective experiences establish the transit of informational data, promoting dialogue based on the collective and collaboration.

Transdisciplinarity, the model proposed for the 21st-century museum, provides dialogues in this archetype of the flow of knowledge areas, which generates integrated knowledge, through new operational structures and interaction systems.

The 21st-century museum integrates a system of relationships. Communication, therefore, is of utmost importance in this integrating interaction

process: a common language in which there is an exchange of information, skills, competencies, knowledge, and responsibilities, in its physical and sociocultural dimensions that allows parameters of comparison between different experiences from different contexts. Therefore, according to the multi, inter, and transdisciplinary approaches, the intention of sharing knowledge is not to reject it partially but to aggregate cognitive perceptions in a movement of disciplinary research that is not antagonistic but complementary.

Disciplinary Confluences, in no way, raise indiscipline, but the possibilities of influences that one discipline exerts over the others using dialogicity. Visual culture often works with abstract, incorporeal, and immaterial languages. How to examine the consciousness of intangible and impalpable phenomena?

Phenomenology related to Visual culture can form a theoretical-methodological basis for research on networks in the face of a rigorous attitude of the studied phenomenon of networks, propitiating the emergence of meaningful writing. This relationship is a distinct way of seeing and

understanding the world. The perception of the other gives the perception of the world, and the phenomenological attitude arouses sensitivity to perceive what is elliptical in the description of facts and results.

Edmund Husserl's Phenomenology proposal implies a closer and less automated understanding of these phenomena. The object of knowledge, in Phenomenology, is precisely the world experienced by the subject that reveals the notion of intentionality and the notion of consciousness. Therefore, to understand a phenomenon, it is necessary to describe the experience of the subject that lived it. Thus, the understanding of the world starts from experience.

The minuteness, detail, and particularity manifest the intrinsic of the investigation, its entanglement, always in the process of de-automatization of language, in what is obvious. It is up to the phenomenological posture to search for the essence and explore the most profound and hidden meaning, for it is not limited to the description of findings to obvious and shallow descriptions. The great challenge is to describe in an interpretative

and conscious way all the complexity of the phenomena of the experienced world.

All the complexity in the inquiry process has a specific limitation because no description, no matter how detailed, can come close to the experience itself. The investigation is incorporated from this incompleteness, from the breathing space, through the gaps, and between the lines as it reaches almost incomprehensible micronarratives in these existing gaps. This incompleteness is what makes the research unique and singular.

The unpredictability is what makes research not determined and imprisoned. Unpredictability makes research unstigmatized and unprogrammable. In this way, the end of the study is not projectable and crystallized but always natural and dynamic.

Mitchell (2002) offers a set of counter-theses after exposing fallacies of the Visual Culture research field. Among the eight counter-theses described by the author, the first three follow:

- 1 - Visual culture stimulates reflections on the differences between art and non-art, visual and verbal signs, and the relationships between different sensory and semiotic modes.

2 - Visual culture implies a meditation on blindness, the invisible, the hidden, the unseen, and the neglected; also on deafness and the visual language of gestures, as well as on the tactile, auditory, non-visual, and the phenomenon of synesthesia.

3 - Visual culture is not limited to the study of images or media but extends to everyday practices of seeing and showing, especially those we make instantaneous or mediated. It is less concerned with the meaning of images than with their lives and loves (Mitchell, 2002, p. 236).

Mitchell does not limit Visual Culture to the phenomenon of seeing but extends it to the phenomenon of the non-visual and even more to the phenomenon of synesthesia. The author exposes that one of the fundamental functions of Visual culture is to attribute meaning to the plethora of external realities in their everyday practices.

According to Smith (2011), "the political task of visual culture is critique" (p. 60) in a reflection on visual, non-visual, and synesthetic everyday practices. Thus, Visual culture results in a friction-filled, dialogical, and analytical field, creating meaning in the interaction between the mind and the world. Therefore, everyday sensory experiences gain space in life's dynamics and research.

Merleau-Ponty, in a thought-provoking conception of the world, states that "the world is not what I think, but the way I experience the world. I am open to the world, I have no doubt that I am in communication with the world, but I do not possess it; the world is inexhaustible" (2006, XVI-XVII).

Merleau-Ponty urges us to create new meanings in this inexhaustible world as a hybrid world with the possibility of diverse experiences that overwhelm our daily lives. Visual culture participates in this teeming phenomenon of perception, uniting sensibility and understanding. Phenomenology is responsible for the apprehension of all the complexity in the deep dimension of what fibrillates in silence and the understated, making understanding the phenomena intuitive.

Bringing the contributions of phenomenological practice to Visual culture - in the subject that sees, feels, and perceives - allows the possibility of understanding the many other visualities in the process of sensory synergies that make up the contemporary world.

## Epistemic Wefts:

### The (post)-Phenomenological method in the study of networks

Assuming investigative research facing the phenomenon of the process of constitution of networks and guided by the principles of Phenomenology and Post-Phenomenology, the study aims to produce a writing that can serve - not as a description of facts, causes, consequences, and results - but as a reflection on the practices related to the phenomena of modes of bonding in networks. The investigation, by this method, presents a degree of sensitivity and zeal on the researcher's part so that one can perceive the

shades and inter-tones that make up the behavior of the subjects involved in the lived experience.

The networks function as a genuine laboratory of flow and interaction. This phenomenon of passage and transition, which constitutes the link between constituent network elements, is established through the operation of a complex system.

Latour (2013) questions where the phenomena are studied in the network, probably because many understand that the elements get more importance than the transit space.

Where are phenomena found?" one will ask. "Outside at the edge of the networks that represent them faithfully," some will say. "Inside, fiction regulated by the very structure of the universe of signs," others will say. Realists, constructivists, epistemologists, and Borges readers would like to dispense with the set traced by the networks and centers and be content with either the world or signs. Unfortunately, phenomena circulate through the whole, and only their circulation makes it possible to verify, assure, and validate them (Latour, 2013, p. 56, emphasis added).

Thus, one can see that the network phenomenon is found precisely in the circulation of flows. The inter-ways constitute this transit space, where the



network phenomenon is found. Latour (2013) points out where the network phenomenon is established. And based on this pertinent explanation of the author, the study is outlined. In this space of transit, through the whole, in the linking of the elements, the network phenomenon manifests itself.

Such a path will establish a link between both and Visual culture; this leads to new possibilities of articulating reality as a network of meanings, seeking to unveil other possible paths for the concept of the network in a process through which meaning is revealed beyond what is manifest.

The phenomenon recognizes this ontological engendering between perception and the object perceived, understanding the perceptual experience as constituting the subject, as "a field of presence, in the broad sense, which extends along two dimensions: here-there and past-present-future" (Merleau-Ponty, 2006, p. 357). In this approach, the so-called truth is understood as evidence of the essence (a clear vision without "preconceptions" of reality) or essential intuition, emphasizing the circulation of these in-between.

Complexity thinking is brought to the fore to examine the binomial autonomy and dependence present in the formatting of networked polynucleated museums.

In the case of this paradigm, looking at the ability to identify the blind spots of other theories and methods used to analyze the specific object of this research can be an attempt to advance the investigation, paying attention to the epistemological fissures that form during the study. With the understanding of this logic during the analysis, support is created for the recognition that the research conducts, as if with life, its alignment.

Epistemological paths cross, and one realizes that the limits are fluid and interposed, for the contexts are complex and go beyond traditional theories and analysis methods. After all, complexity, as a theory, does not aspire to the understanding and delimitation of conceptual boundaries. It is understood that, in fact, what exists are porous and fluid boundaries through a dialogical relationship.

The connection between the different epistemological visions studied in the trilogy allows the observation that a correlation interferes expressively with the understanding of the study. Analogically, one can relate the functioning of this semantic network in which the trilogy is woven to the functioning of a watch, which only works perfectly if each part is positioned correctly and in a meticulous state of usability. Curiously, the clock is an object that makes a historical allusion to the boundary of time as a programmed system that accurately determines the passage of time in hours, minutes, seconds and even thousandths of a second.

At the same time, there are different time registers in the various places on the planet, so the clock also refers to a geographical allusion. Time zones designate changes in time markings in spatial demarcations. The time zones were established precisely to suit a system, the Solar System.

Likewise, the museum network needs each branch to play its role through its different cores (spaces). The scientific-technological advances in the course of history (passage of time), in a way,

have driven the museum to a search for a new integrative restructuring.

Intermingling the concept of networks with space-time concepts brings a complexity of dialog that reaches incompleteness. For example, time in a musical score is restricted, and the interval is when there must be silence, a pause, strictly between one note and another. Phenomenology is correctly found in that interval, considered in the unfinished aspect of the text, of the countless possibilities of interpretative readings of a perceived world.

If by reflection I find in myself, with the perceiving subject, a pre-personal subject given to itself, if my perceptions remain eccentric about myself as the center of initiatives and judgment, if the perceived world remains in a state of neutrality, neither object verified, nor dream recognized as such, then everything that appears in the world is not at the same instant exposed before me, and the behavior of another may figure there (Merleau-Ponty, 2006, p. 472).

Experience, in this way, is interpreted and individual to the extent that each experience itself evidences its own lived traits, its actualization in time and space, and its unavoidable present difference. Based on this logic, a thought that claims to be

complex cannot be considered complete but rather a thought that assumes incompleteness and uncertainty.

Thus, according to complex thinking, scientific, phenomenological, and post-phenomenological reasoning can only be understood through knowledge that is also complex that is concerned with relationships and correlations. After studying the chosen epistemological bases and during the writing progress, the trilogy's title became *Museums NETWORKS of development*, providing an interpretative relation of questioning to what was presented, with the investigation of the molds of the organizational structures constituted in a network.

This way, we proposed to carry out a study that involved understanding the problem of a museological network organization. Thus, in the first volume, it was necessary to delineate some clippings of the history of museums to enter the contemporary museums, structured in the network, in the second volume, whose themes are not limited to art museums, but to all the others, including the scientific ones.

In this desideratum, the research provided an opportunity for a study that developed a critical awareness of the various spaces of museums that are not only considered collections but spaces of transit and articulation.

As for the main thread of writing, I began by addressing the idea and mechanism of the evolution of museological institutions through a cut, which was a subtle outline traced from creation to the traces of modernity in the first volume; then, in the second volume, the study advanced in discussions and conceptual parameters between the theories of networks and systems in dialogue with Visual Culture, since the visuality, allied to modernity, creates new personal and intersubjective experiences, in the formation of new spaces of sensitization. Finally, this volume points to some paths of investigation of a networked museum reality.

The linguistic and mathematical systems were chosen representations that recreate images well suited for the signification of the functioning of networks and systems. The interest in the writing of the linguistic system is due to the understanding

that the social bond is linguistic and is not woven by a single thread. This comprehension revealed that each individual could resort to a set of codes, starting from a language movement, making communicative bonds emerge.

About systems mathematics, the comprehensiveness of mathematical theory in all systematic models, in its countless facets, makes the model of rationality recognized, supported by a geometric vision of the world, both for being a universal language and for transcending time and space. Attributing such concepts to museum institutions in the face of the dichotomy of openness and rigidity in the organizational model favors circumscribing what is or is not according to the peculiarities of networks and systems.

The composition - be it of the network or system - is a notorious exercise in connection. And the alterations and configurations of the network make it possible to problematize the relationships between the museum centers to decode the complexity of this organizational mode. However, there is no strict definition of networks and systems, and, in fact, a conceptual intertwining is

established. Although the network is characterized as a more open structure, some systems carry an openness in their design. Similarly, there are also more vertical networks. Finally, the dynamics of functioning in modes of articulation that designate under which organizational structure the complex is submitted.

The whole study is a tremendous semantic network weaving. The theoretical and methodological research material considered significant and necessary productions for the proposed contribution was crucial in developing cognitive dimensions. Through textual weaving, connections, and articulations are established, linking the ideas to culminate in the trilogy's core. After all, the semantic network of research work is woven by the relationship between theories, methods, and analysis.

The task of unveiling and formulating a speculative interpretation of what the whole theoretical trajectory provided is complex. However, such an exercise proposed the possibility of revealing the semantic microstructures reproduced in different strands and areas of knowledge. The work dialogued with philosophical, linguistic,



cultural, and technological disciplines, presenting a conceptual synergy of the new configuration of networked museums.

The lack of "will" to articulate, associated with a Brazilian practice of directors being the center of the museum's reality, without a methodological project of planning and process for the continuity of the articulating projects, is considered a significant impediment to the establishment of a network format in museums. A system, which should work as a network, does not resist political commands because the public political ballast is based on discontinuity.

From an unveiling of what contemplates a merely political action plan, it points out the weaknesses of this configuration mode, translated into the inoperability of what was proposed. From a network and system point of view, they do not develop in articulated ways. There is a distance between the proposal and the actual functionality. This scenario indicates, in a way, that in practice, it takes more than a strategic plan or a suggestion of a functional format, whether at the level of public policies or not.

Without the museological complexes configured as a network moving through an articulation between nuclei so that there is intermediation and accessibility, as propulsive characteristics for an environment of dialogue and shared management, a possibility of articulation modes is not established.

A challenge for museums in contemporary times is that the idea of movement in museum institutional practices is replacing the static notion. The network structure is sliding, with mobile, temporary, dynamic, and interactive architectures. However, this structure is still at the theoretical level.

In an important sector of our culture, there is a mutation in sensibility, which has yet to reach the practices and discursive formations. Most museums focus on the perspective of only turning to the maintenance of culture from its objects, including research and preservation. They do not move towards new views of approaching these objects, returning to museography projects of instructions that direct to singular experiences.

In addition, to become environments that bring history to the surface, from the collections and holdings, calling the attending public to observe objects and records kept by successive generations that portray the very dimension of living culture, still pulsating. Time moves in the eagerness to build concepts and relationships, considered a relevant aspect of contemporaneity. A constructed exercise, not given, i.e., an exercise not only of interpretation but also of association, of connections between the present and the past, even if imperfect.

In this process of continuous evolution, museums, which could be considered an extension of our memory in the historical society, have been empowered. Documents and innumerable technological supports can register memory, each time more compact and with greater storage capacity.

The idea of flow, manifested in the ideals of networked museums, proposes mechanisms of interactive and transdisciplinary functioning, which makes it possible to interact with its structure in nuclei and, simultaneously, outside its structure. The degree of connection results from the union

of a set of actors in interaction with people, objects, cultural contexts, historical aspects, artistic practices, spaces, technologies, projects, and experiences.

Although museums store the airs of the past, when interpreted, museums are updated by breathing in the present. There is, therefore, an exercise in constant updating as the reading is contextual. In the typical activity of continuous breathing, museums should keep their reinvention facet, adapting to the exposed context and aligning themselves to the modern concepts of networks, distribution, and contemporary society, the lung of their work.

The updating, via interpretation in the present, is necessarily constituted by not seeing the world as it really is but as we are. This is the phenomenological ballast, which studies our consciousness of the phenomenon, not the phenomenon itself. In this design, the present is only our personal reality, with all the subjective semantic charge impregnated. Meanwhile, the real remains sphinx-like in its comprehensive completeness.

# Museum Networks and Systems: Complexities

The experience postulated by Dewey is developed from a pragmatic relationship, where it focuses not only on the meaning but on the logic, contexts, and actors, achieving a much greater complexity as a process of de-automatizing language.

Through the application of the phenomenological method, the purpose is to unveil the articulations that form the basis of the system and the network, if indeed they exist. Thus, the next step seeks to evidence the stratified process of analysis, contained in the movement of the pieced unit, then of several pieces, then of the parts installed

in a show, then in the publicized show, and finally in the articulated shows, being created 5 (five) strata for analysis.

**Verbivocovisual Stratum:** a stratum of the meaning units and represented objectivities, searching for the unitary logic of the pieces and their way of reaching our senses, including the collection, through the observation of the exhibited pieces; **Curatorial Stratum:** a stratum of the relations of meaning, through mechanisms of communication and articulation of meaning among the pieces, forming exhibition themes, with observation of curatorial processes and of the assembling of the exhibitions; **Exhibition Stratum:** stratum of the installed relations, articulated between the curatorial cutout and the exhibition space, including the expography, validating possible paths and dialogues, in a materialized set of display of enunciates, which reaches the analysis of the exhibition organization material, such as furniture, lighting, conservation, among others; **Advertising Stratum:** as a stratum of the articulated world, through the exhibition that is opened to the public, with the inclusion of signage, folder, catalog, documentation, monitoring, educational axis,

in addition, reaching technological base and audience modeling; and the **Networking Stratum**: a stratum of the network logics, as articulations between the spaces, verified in periods of exhibitions, communication, exchange of pieces and other examples, encompassing administrative base, communication, safeguarding and other operational levels that indicate the effective existence of network or system.

Leaving the logic centered on each piece, the exercise must glimpse an expanding path from the piece to the network in that interdependence movement to go from a certain level of detail to a macro level.

However, the analysis of the data to verify the level of articulation among the museum centers, followed by this attempt at a stratified analysis through the phenomenological method, allows access to a survey of questions that contribute to results that are sometimes different from the documentary analysis, since it is only a public agency that aggregates museum institutions, without the commitment of any level of articulation among them.

The choice for the Epistemology of Complexity to finish this trilogy is that it interweaves other theories, methods, and scientific thoughts that grounded this study, such as Actor Network Theory (TAR); General Systems Theory; Visual Culture; Phenomenology and Multi, Inter, and Transdisciplinarity. Complexity Epistemology is a non-exclusive theory whose theoretical thoughts flow from several directions and meet in a complex reality.

This thought of the complexity of phenomena, advocated by Morin, allows the achievement of a new worldview with substantial effects that need to be considered by science in its process of knowledge production. And according to Oliveira and Hildebrand (2017):

Today, we notice the existence of the complex phenomena that have always existed, and, with the emerging technologies and the increasing production of knowledge, we observe that the level of complexity of our representations by which language and knowledge are organized grows exponentially (p. 178).

Opposed to reductionism, such an epistemology implies the recognition of all the nuances and



nuances of the phenomena that singularize research. Therefore, complex thinking is not holistic because it does not understand the totality, paying attention to the shortcomings of even any theory. In this way, complexity is precisely the opposite, as incompleteness causes the uncertainty of knowledge.

Amidst the complexity of the studied phenomena, the research development raised this new worldview, with the insertion of the human being in its contextuality, because, according to the theory, there is a relationship between humans and the socio-linguistic-cultural context. For Morin (2006), what matters in Complexity Epistemology are the connections, the interrelations, and the mediations, given the possibility of getting closer to the real.

The human being is permeated by its social, cultural, historical, and political complexity. In this proposition, the individual is surrounded by a space-time context, becoming contaminated, which is a good term. According to the author, the contextual structure inscribed in human beings unconsciously commands their way of thinking and acting.

The Epistemology of Complexity studies the connections and, according to the object of study of this research, the complexity ideology of networked museums is reflected in the idealization of administrative personality. For this, it implies that we recognize all the possible singular features of the phenomena without connecting them to general laws.

There is, in fact, a gap between the Complexity Epistemology of networked museums and practice. Although the models are well structured theoretically, there is no genuine involvement of participants, and the culture of personalization in the management undermines this actual structuring.

Complexity is not the same as complication. Morin (2002) calls this epistemology "order within disorder" or "certainty within uncertainty," and it is precisely for this reason that it is called complexity. Complexity is constituted before a dialogical combination. This relationship between man and the world is also close to the Actor-Network Theory - ANT, which has directly or indirectly influenced analyses in several areas of

knowledge and, according to Latour, is compared to the sociology of associations between humans and non-humans.

According to ANT, this hybridity between humans and non-humans, translated by entity interaction, performs the role most emphasized in this theory. Entities in this study can be led to the understanding of museum institutions. As the author rightly said, they are associations and complementing, complex, non-linear associations. As Latour (2001) acknowledges:

[...] the game is not to extend subjectivity to things, to treat humans as objects, to take machines for social actors, but to "avoid at all costs the employment" of the subject-object distinction when discussing the intertwining of humans and non-humans. The new framework seeks to capture the movements by which a given collective "extends" its social fabric to "other" entities (p. 222, 223, emphasis added).

Latour (2001) does not accept the terms in distinction as subjects and objects because there is an infinity of interests, knowledge, cultures, sciences, histories, technological artifacts, and people, among many other elements possible to be perceived in the associative relationship. Also,

it does not consider that in this relational process, there is a situation in which the sum of the isolated elements is equal to the sum of the parts when they are associated. In this second negative, ANT harmoniously resembles the understanding of the relationship between the parts and the whole with Complexity Epistemology.

The challenge facing organizational and administrative studies as a whole is not simple. In the context of analyzing the phenomenon of organization and administration in networked museums, ANT comes to be perceived as a complex system of values, interests, limits, and possibilities.

Systems Theory is one of the three principles of Complexity Epistemology, Information Theory, and Cybernetics. However, according to Morin, it is a chaotic system far from conventional, regulated, and organized.

For Morin (2006), the dichotomy between autonomy and dependence is present in the system as complementary and antagonistic concepts. The organizational models make these concepts

slide from configurative choices. Somehow, museological organizational models have followed formats that sometimes glimpse autonomy in horizontality and sometimes glimpse dependence in verticality. Perhaps this tension can be the way to a possible understanding of specific contexts of complexity that involve the systemic principle by a so-called pseudo-autonomy, which does not necessarily generate dependence but generates control since we are currently moving towards a structurally and scientifically controlled world in its entirety, whose technological advances have made modern totalitarianism reach its highest effectiveness.

As a characteristic and result of control, totalitarianism is holistic and comprehensive. This understanding differs from Morin's (2006) conception of systems since the scientific-technological field has faced difficulties preserving the organization and management of many studied phenomena.

Therefore, there is a phenomenon that requires attention for scientific research due to its complex nature. As institutions that are part of the social

fabric, museums have sought to adapt to new challenges that govern social patterns. As an institution, the museum reflects a society with its constant social, scientific, and technological changes. These aspects imply a fundamental reorientation of scientific thinking, facing concepts closer to the current reality in academic-contemporary research.

By the Systems Theory, Bertalanffy (2013) defines the system as a complex of related and integrated elements, even because behavioral differences exist between elements analyzed in isolation and elements interacting with the system. Analogously, from another perspective, Morin (2006) understands such organizational effects equally, in which, on the one hand, the whole is more than the sum of its parts. It is also less than the sum of the parts. The less refers, precisely, to the restrictions and inhibitions, a consequence of the organizational retroactive impact of the whole on its parts.

Still, through dialogicity, Complexity Epistemology is contrary to disciplinary thinking. This epistemology has as its axis the involvement of multidisciplinary,

interdisciplinarity, and transdisciplinarity. Thus, in this research, these issues are imbricated with the configuration of museums in the network.

Complex thinking is a requirement for the exercise of multi, inter, and transdisciplinarity. Complexity, as an epistemology, is engendered by the possibilities of influence that one discipline exerts over the others, and the unexpected make up the complex. The interaction systems generate dialogues, data that articulate among themselves in the face of a multi, inter, and transdisciplinary vision.

In these disciplinary perspectives, complex thinking aspires to multidimensional knowledge but understands that complete knowledge is unattainable. This way of thinking implies the recognition of a principle of non-completeness and uncertainties. Such disciplinary structures present in Complexity Epistemology allow the search for different paradigms, enabling conditions for elaborating rigorously scientific thought.

The principles of complexity match the scientific and technological advances - discussed in this trilogy by processes of epistemological ruptures

through a continuous social-historical exercise - essentially in a systemic environment. Such ruptures, in a way, have incited the emergence and development of complex thinking.

The Complexity paradigm, in the view of Visual Culture and disciplines, allows the possibility of understanding many other visualities in the process of sensory synergies that compose the world of science and technology.

Such epistemology enables the incorporation of other theories from its nature of incompleteness. The gaps of incomprehension, translated by incompleteness, make research sui generis, unique and entirely unpredictable, for its dynamism in moving, bringing together, and associating the various knowledge shared in multiple segments of knowledge without getting rid of the essence and peculiarities of each phenomenon.

With the Epistemology of Complexity, a new perspective on knowledge is emerging, involving the interrelations and inter(actions) between knowledge and all the conditions and issues that surround it, ranging from the human being



to social, biological, political, economic, historical, philosophical, and cultural circumstances, among many others.

Regarding Morin's principles, both Complexity Epistemology, Phenomenology, and Post-phenomenology do not demonstrate naivety in the pretension of capturing an objective reality in a way that is impartial to the perception and purposes of the researcher because the human being is complex and cognoscente, who thinks, reflects, analyzes, and dialogues in an open, uncertain, and creative way with the innumerable forms of knowledge.

In this way, the thought of complexity aims at an association, without fusion, with all scientific and non-scientific knowledge. It outlines a path established in its course and its uninterrupted realization and reflection.

In this conception, it is clear that the inclination of this trilogy for the study of museums regarding their configuration in network - with the analysis of the mechanisms of formation of integrated actions and the verification of implicit flaws in

these actions - in practice, sometimes is not established. There is a gap between the intention and the action.

With the help of the term complex, this trilogy assumes gaps, translated by impediments and oscillations, in the constitution of networked museums with integrated actions that stimulate, organize, and communicate, not simply actions that order and manipulate.

# Thoughts en Route

This book describes some of the problems inherent in the pragmatics of museum networking and describes them in detail to serve as a parameter for what to avoid following.

The work weaves a discussion of the functions of these institutions in contemporary times, outlining specific traces and elements for structuring museums in networks and how they are organized administratively in a pragmatic approach. In this sense, the flaws that can be established in attempts to create a networked involvement of museums follow.

The actions taken, for the most part, do not envision, practically, any articulated operation between these spaces that constitute the museum nuclei. There is a lack of space for reflection or to catalyze the exchange of experiences, promoting and strengthening discussions about networking through experiences in other contexts, including international ones, enabling the creation of partnerships between museums in Brazil.

There is also no fully adjustable strategic plan that commits to a dynamic functional organization open to promoting articulation programs as a cultural policy, thus consolidating a series of dialogue mechanisms with a spirit of sociability.

The lack of incentive and support, in several aspects, for the articulation among the museums - such as regular meetings with perspectives of joint actions; the help in divulging and popularizing these actions; and the elaboration of guiding documents for the institutions, based on the system's implantation guidelines - constitute aggravating factors in this scenario.

Usually, the cores lack administrative autonomy in creating a deliberative power to make decisions and, consequently, to unleash actions.

The non-attendance of planning with continuous evaluation of the results, periodically realizing the analysis of the processes for each articulated action developed, reviewing what was successful and what was frustrated to the planned, without failing to update all the obtained data frequently, contributes to the failure of the museological operative network, with a stimulus of adhesion and continuity for the actions in articulation, thus making possible the conditions for the museums' network performance.

The distancing of the organizational dynamics of museums, in terms of resources<sup>1</sup>, functional structure, and actions to develop, in the full performance of what, today, is asked of them, making them aware of the spaces for networking by adhesion, while a more intense exercise, in the face of specific articulations initiated in duets, trios, and so on, contributes to the non-establishment of

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1 Human, financial, and technical.

the network, as a consequence of a collaborative exercise.

Thus, amid the paths the research has traveled, I do not end the theme. After all, this web, consisting of concepts, theories, methodologies, and analysis, does not end. The work that analyzes the museological network formatting endorses what these experiences present as positive and rejects what does not constitute good practices.

The effort of this trilogy highlights the importance of small but significant contributions that may be useful to those who do not conform to what is apparent and seek to guide their research by approaches that place themselves in a critical position concerning what is set, illusorily consolidated, complete and defined. For, by untangling the imbroglío of complexity thinking, we can recognize ourselves as complex subjects, incorporating more easily the principles of complexity in scientific-academic studies, assuming all the complex potentiality that surrounds all (post)phenomenological research.

This trilogy aimed to diagnose prospects for articulating museums in networks, investigating the existence of modes of linkage as museological institutions have sought to empower the transformation process into museums through collective and simultaneous efforts.

The ideology of a new museum, articulated in systems or networks, lacks successful initiatives, so there are no neuralgic points for failure. The research continues to launch new hypotheses and elements for discussion, contributing to advancing state-of-the-art research in this field.

Moreover, by approaching the theme from external references to the classical studies of museology, the intersection of areas was unveiled, reaching the complexity of the matter, which passes not only through the field of Visual Culture but also through management, communication, aesthetic experiences, and many other disciplines that, together, establish transdisciplinary social practices. This perspective creates new research indications in emerging demands for contemporary social pragmatics.





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