Borders and Bridges in Virtual Work:
Between Real and Imaginary

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Abstract

This article discusses our reflections on how to holistically integrate reality embodied in virtual workspaces—what we perceive within our work and interaction with technology—and highlights the importance of documenting our exploration in times while Artificial Intelligence is developing. Our approach is divided into three parts: the boundaries and bridges between the real and the imaginary, the possibilities of existence and non-existence offered by technology, and the experiences of expressive arts practitioners within virtuality.

Resumen

Este artículo habla de nuestras reflexiones sobre cómo integrar de forma holística la realidad encarnada en los espacios de trabajo virtuales, lo que percibimos dentro de nuestro trabajo e interacción con la tecnología y resaltar la importancia de documentar nuestra exploración en tiempos en los que se desarrolla la Inteligencia Artificial. Nuestra aproximación se divide en tres partes: los límites y puentes entre lo real y lo imaginario, las posibilidades de existencia y no existencia que ofrece la tecnología y experiencias de los profesionales de las artes expresivas dentro de la virtualidad.

Bios

Valeria Rocío Gonzales González Cueva, M.A., Peruvian living in Lille, France. She speaks Spanish, English and French. Valeria is a dancer who dances in unconventional spaces. She is an Expressive Arts Therapist, Coach, Educator, and Dance Researcher. Her experience crosses corporate social responsibility, project management, and human development to facilitate communication within technical teams and intercultural spaces. Currently, she does research on how the concepts of reciprocity, commitment, and complementarity of the "Minka", ancestral knowledge of the Andes, can work for collaborative choreographic creation and education in dance. valeria.gonzalesgc@gmail.com | www.valeriagonzales.com

Carmiella Salzberg Zorzi, M.A., is an American-Israeli artist, academic editor, and entrepreneur living in Switzerland and Italy. She is a native English speaker, fluent in Hebrew, proficient in Spanish, and a beginner in German and Italian. In her master's thesis in the Arts, Health, and Society Division of the European Graduate School in Saas-Fee, Switzerland, she researched how our embodied-imaginal relationships with objecthood inform our interact-

ions with natural and artificial environments, cultural storytelling and conflicts, theoretical physics and technological invention. She is the founder of ImaginGeist, a nonprofit start-up based in Switzerland launching an interactive platform to explore creative approaches to global issues through participatory arts-based research and content creation. carmiella.zorzi@egs.edu | www.carmiella.com

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This article is an *experimental* conversation, a personal approach that plays between time and space, imagination and reality, and weaves together the research realities of both article writers. When we talk about research, we are referring to the reality of our daily work; both of us using virtuality as a working medium, from different approaches. Carmiella Salzberg Zorzi is an artist researcher and entrepreneur. Her work is based on creating virtual and interactive spaces that promote creative approaches to global problems through arts-based dialogue and Valeria Gonzales is an artist researcher and project manager. Her work crosses interdisciplinary virtual and face-to-face spaces through dance education, social responsibility and research on ancestral knowledge of the Americas.

Our interest is to reflect on holistically integrating embodied reality into virtual workspaces for maintaining well-being in the Expressive Arts and Technology (EXA) practices. To show the connections between our interests, we have divided our approach into three parts: borders and bridges between the real and the imaginary, possibilities of existence and non-existence offered by technology, and experiences around EXA.

Part of this article theme emerged during the 2022 European Graduate School (EGS) Alumni Festival that was divided into presentations and working sessions. We gave presentations about their EXA and Technology practices. During the presentations Valeria discussed her findings as a Project Management Professional expert in Interdisciplinarity, especially in her EXA work with the IBM Corporate Service Corps (CSC) program in Perú and Argentina. During the working sessions Carmiella spoke about the evolution of ImaginGeist, a nonprofit start-up based in Switzerland, that she founded in 2020 to launch an interactive platform for exploring creative approaches to global issues through participatory arts-based research and content creation.

This was a hybrid working session co-facilitated by us and we named it: "Bright E-ffective Futures: Art, Technology, and Soulful Virtual Structuring." The term "E-ffective" was a play on words that associate the EXA concept of "Effective Reality" and "Electronic" as a way of explaining how the presenters interacted with technology and EXA in coaching and education environments. In EXA we say that "Effective reality exists when the surrounding world of 'measurables' interrelates and is fed by our imaginative inner world" (Evers, 2001, p. 81). Effective reality becomes a call to action and "is only effective if it drives you to take on new challenges and transform your environment" (Gonzales Gonzalez Cueva, 2018, p. 45). The idea of the session was to have the opportunity to integrate the presented concepts and practices, to think together and explore how effective reality can be perceived in virtual environments.

During the session, we offered an experience that associated the use of virtual interactive images with writing, along with free movement, to generate a discussion on how virtual content shown on a screen can affect corporeality. The participants had to interact and describe their sensations, and then through gestures they had to create a movement phrase that described how they perceived their interaction with the virtual. They were encouraged to write associations that came freely. Each participant made a brief description of what was easy and/or difficult during the virtual interaction and many of their questions revolved around the following: The boundaries and bridges within the workaround technology; to what extent do our bodies interact with the virtual by choice or necessity; and how this mode of interaction either built or hindered communication and creation.

A year after the EGS Festival, we were invited by one of our colleagues to develop this article about our ideas around EXA and Technology. Despite having started writing together, this article has been written in levels of solitude and collaboration. During our interactions, we looked for nodes of encounter, places of resonance between our separate, parallel art-based research processes, while in faraway living environments: a North American living in Switzerland and a South American living in France, communicating with one another virtually.

We see this article as an experimental conversation. We started the writing process together and we worked through it alone, dealing with the reality of the texts we sent to each other and the actuality of our perception of them. It is a co-writing experience that describes and navigates the experience of virtual environments, our considerations, advantages, concerns, opportunities, and lessons learned using technology, artificial intelligence (AI), and EXA.

We recognized the importance of embracing a certain creative freedom in our writing, allowing us to highlight our unique interventions and perspectives. It is imperative to elucidate the collaborative process behind this piece, forged through shared interests and experiences. Each of us worked independently on virtual components, leaving our individual marks, only to subsequently weave our ideas together within the realms of a virtual document. Within these digital spaces, we delve into our collective experiences surrounding EXA, technology, imagination, and reality.

Across the document, you will notice that the font changes at times represent our voices—the piece of each writer:

> *I am Carmiella*
> I am Valeria

We both started writing from our resonances, dissonances, perceptions, and possibilities. However, reality changed what we planned.

At some point, Valeria took a step aside from writing because the pace of her work and research put her mental health at risk. Carmiella continued alone until the first revision of the article, using our previous research as a base, and collecting all the pieces of information that were important to start talking about EXA & Technology: Our personal exploration, the dialogues we wanted to develop, how embodied reality can be integrated into practices around technology, the connections with physics, etc. After this point,

reality played its role again and Carmiella had to step aside for the same reason as me: mental health. Thus, I (Valeria) created the links between the collected pieces and weaved along the interstices until the conclusions. Working this way was like having conversations with Carmiella. I imagined her in a different space-time or a different layer of reality. Making this phenomenological explanation of how we wrote together is part of the description of how virtual environments change the way we live, think, and perceive people, knowledge, and the world.

Ultimately, we sought to generate a conversation about the borders and bridges between imaginary and real, the possibilities of simultaneous existence and non-existence that technology gives us, and the effects we must consider as we continue to work in times of developing AI. Thank you for navigating this story with us.

Borders Between the Imaginary and the Real

In 2020, Carmiella wrote a thesis called "The Curiosities of Object Permanence" based on a very interesting concept from developmental psychology, to refer to when an infant learns that each object is unique and begins to understand that if an object disappears from view, it does not cease to exist.

Jean Piaget introduced to the field of developmental psychology the term sensorimotor stage to describe the first phase of human development when infants reckon with their existence solely through sensual perceptions and bodily movements. According to Piaget and Inhelder (1969), it appears that while newborn babies are pre-lingual, they are not able to conjure symbolic imaginings, only to perceive what literally exists in their external environments. Because their sensory organs are themselves in development, the reality of an infant is "a world without objects, consisting only of shifting and unsubstantial 'tableaux' which appear and are then totally reabsorbed, either without returning or reappearing in a modified or analogous form" (Piaget & Inhelder, 1969, p. 14).

It is through the initial incremental stages of sensorimotor development that an infant constructs its conceptions of the existence of separate objects, space, time, and causality. It is only during Stage 3 of the sensorimotor period which occurs around four and a half months of age where infants exhibit "a sort of magical belief in causality without any material connection" (Piaget & Inhelder, 1969, p. 10). Piaget and Inhelder (1969) call this conception of causality "magical phenomenalist" because the phenomenal contiguity of two events is sufficient to make them appear causally related and "centered on the action of the subject without consideration of the spatial connection between cause and effect" (p. 18).

Spanish sociologist and expert researcher on the Information Age, Manuel Castells, describes time experienced through these technologies as timeless time, characterized by "a relentless effort to annihilate time, to compress years in seconds, seconds in split seconds... to eliminate sequencing of time, including past, present, and future in the same hypertext, thus eliminating the 'succession of things' that... characterizes time, so that without things and their sequential ordering there is no longer time in society" (Castells, 2009, p. 155).

Castells (2009) describes the spatial dimensions of these technologies as a "space of flows" (p. 156) because it is characterized by a global network of interlinked systems across which the flow of information causes simultaneous social experiences to occur regardless of territorial contiguity. If we consider the reconfigurations of time, space, and causality that technology in the Information Age has generated, it is no surprise that

virtual reality has obscured the boundaries between real and imaginary realities we previously took for granted. By interacting with digital objects, the realm of fantasy becomes phenomenologically available to our senses. Imaginary visions once reserved solely for our internal dreamscapes and stationary art objects now can flow endlessly before our eyes on external objects which we can change instantaneously with the touch of a button or the imitation of a button on a touchscreen. In the virtual world of the internet, one can even build whole 'lives' as fake personas and avatars.

Computerized phenomena are so new that we have yet to gain a depth of perspective on how our consciousness is affected by their existence. Social anxiety over what the negative consequences of digital technology could be on human development is thus palpable. Some news reports describe the concern of "nursery teachers who are observing young children able to swipe images on screens but struggling with age-appropriate dexterity tasks like stacking building blocks" (Paton, 2014, para. 9), and the act of giving a young child an iPad is arguably tantamount or compared to child abuse.

The scrambling of the borders of reality caused by the invention of computers and the Internet has precipitated the need for a term to differentiate between the realm behind the screen from the one in front of it. What lives in front of the screen is us, the 'real.' What lives behind the screen, we now call 'virtual reality.' In the era of virtual reality, time and space have had to be redefined, and the concept of object permanence has taken on an entirely new dimension.

This document itself is written on a virtual piece of paper stored by a website. Until it is completed and printed (if we choose to do it), it only exists in virtual space and not in the external world of objects. With each act of typing, deleting, copying, and pasting, we are reminded that we are not interacting with a real piece of paper upon which none of these operations are possible, but rather with a liminal imitation of paper which offers an expanded flexibility of material presence. The document is available when a digital window is open on the screen of a laptop, but when it's closed (the virtual document or my laptop), it is gone from our vicinity in a way that we cannot tell you exactly where it has gone. We can understand theoretically that it is converted into light and energy stored by circuit boards and servers when we cannot see it. However, from our phenomenological experience of it, a digital object is the only object of which we know can dematerialize and rematerialize at will.

Perhaps I am naive, but I am not so much frightened for the development of these infants and children as I am deeply curious if in several decades from now, they will possess brilliant insights about the boundaries of material and immaterial reality precisely because their sensorimotor development involved confronting spatial and temporal liminality in such a direct way. I would like to believe that relating to these technologies will form foundations for ground-breaking understandings that prior generations simply lacked the environmental stimuli to foster. Perhaps this generation will figure out how to actually 'beam' people across space and time or how to overlap multiple objects in the same place at the same time without destroying them. By the time today's infants are my age, the world will undoubtedly be stunningly more liminal than it is now.

After reading the text left by Carmiella, I understood her enthusiasm, while at the same time I thought, I do fear that virtuality suppresses the essential experience of feeling with all our senses. This is because in my work I had already seen the physical and psychic effects of working for a long time in dematerialized spaces. It is interesting that Carmiella starts talking about "object permanence" because it is a concept

that invites us to think about virtuality not only from the immaterial but from the parameters of our physiological evolution. If technology invites us to redefine the parameters of reality, describing our bodily possibilities during interactions with technology is a real necessity for health when we start exploring.

As EXA facilitators, we must get personally involved in the exploration of the medium to safely scale the limits of the alternative and current reality with others. The work of EXA and technology implies we must learn to work with limited sensoriality and the virtual as our new material. For example, videoconferencing can be seen as a material that involves only two senses to be able to create together and involves considering the key aspects of visual, auditive, and spatial-temporal engagement:

Visual:

- The screen defines the visual frame, decreasing range of vision from 180° to about 40° which is what the screen allows, influencing the message conveyed.
- Deliberately excluding elements affects perception and can cause distraction. The screen serves as a unique stage, focusing on individual images and gestures during communication.

Auditive:

- Videoconferencing relies on a single sound channel, necessitating careful consideration of audio transmission.
- Simultaneous sounds may be filtered randomly; muting microphones when not speaking is essential.
- Awareness of the surrounding soundscape, including stage sounds and ambient noise, is crucial.

Time-Space:

- Participants must consciously engage two senses, prioritizing the screen for a limited attention span.
- External stimuli at transmission sites must be filtered to focus on the visual rectangle.

Understanding the dissociation of attention and the constraint on sensorial experience in imaginal work, alongside the factor of distance, is essential to navigate the material effectively and respond to emergent aspects. This is pivotal as the delineation between our actual and imagined existence becomes a relative concept, contingent on partial visual, auditory, and time-space frames of interaction. Virtuality facilitates a more nuanced questioning of our perceptions about imagery by placing our body amidst a realm of 'fluid time' and 'everyday time,' allowing both states to coexist within us.

Possibilities in the Simultaneous Non/Existence Offered through Technology

Quantum physics tells us that multiple objects can exist in the same place at the same time without losing their structural integrity. In the visual arts, optical illusions are a metaphor for what science says: when seeing two objects exist in the same place, the mind knows that both options exist, but our conscious perception can only see "one at a time." As in these examples, virtual reality is a place where dualities previously unknown or unseen meet to raise questions otherwise impossible.

It appears quite evident to me that the human compulsion to invent virtual reality is rooted in the natural design of our developmental processes, which are geared toward a fascination with the laws and limitations of object dynamics and how they relate to our imagination. The digital screen is where the peek-a-boo dreams of our infancy manifest, where the pretend-play worlds of our childhood are given a shared, permanent stage. It is where a global system of instantaneous exchange has become a reality. The more I learn, the more passionate I become to conduct Expressive Arts-based research in the future on how the phenomena of virtual/augmented reality interplay with our imagination to expand our conceptions of how the liminality of object relations provide space for novel, salutogenetic ways of interacting with one another and the environment.

The foundation of EXA theory is an acknowledgment of the simultaneity of distinctions and crossovers between dreams, daydreams, imagination, and the actual world—the intermodal nature of reality itself. The role of an expressive arts practitioner in a therapeutic, educational, coaching, or consulting setting is to provide a safe, inspirational, and supportive environment for clients/students to explore what arises in the liminal boundaries between imagined and actual reality. Without a practice that strengthens one's imaginal capacities in a salutogenetic way while also sustaining one's connection with actual reality, the natural human impulse to grasp the ineffable can lead to a diminishing of conscious experience where only that which can be literally understood is valued.

I had many questions when I read these last lines because although I understand where this enchantment for the virtual comes from, I can't help but feel a lot of dissonance as well; dissonances in terms of where and how we relate to technology. As I write these lines, my only interaction with Carmiella is this virtual document. She exists in the memory of our conversations, and I can perceive her in the actuality of her writing, but I'm interacting with her "past" version, so I can't avoid feeling that I'm alone in the river of my perceptions.

If I start describing my dissonances, I have to say that virtual reality is built more like an imitation of nature. I believe that everything it proposes already exists. Nature challenges our imagination because as in science, some laws and parameters exist and we understand them because we interact with their consequences, but these parameters do not exist at a level that our senses can touch or even control. Same in virtual reality; my interaction with technology and others through it is performed on the screen. I do not understand completely the coding, infrastructure, and language that builds it, but do I need to know that for interaction? Not necessarily. However, I do need to know the consequences of my interactions, for me and for my environment.

For me, digital space is like a huge system of ponds where passing birds decide to land to create life, nurture, or rest depending on their direction. Virtual meeting spaces are generators of ideas and intellectual life. However, the data that circulates indiscriminately is not enough to build something by itself. To generate something useful for life it is necessary to group and reflect about what is the purpose of getting together, especially within EXA and technology. If Carmiella and I had not met and talked together to write, the narrative of this article would have been impossible. Even if I decided to just use her art pieces and work on them, the product would be something completely removed from what she envisioned. If I just read the information she left, without any context, I could have talked about several different topics. Without a purposeful encounter, the data pieces of her information would be floating in cyberspace. For

data to become information, data must be put into context (Table 1).

Data	Information
It is not specific	It is specific
Not organized/Processed	It has structure
It can be random	It needs context
Raw material	Product

Table 1: Differences between Data and Information. Based on (Kundu, 2016).

EXA beckons us to deliberate on the specific issues we aim to address and the individuals we collaborate with, urging a genuine confrontation with the complexities we seek to understand. Engaging in the arts, whether virtually or in person, entails cultivating a sense of purpose and introspection. We are prompted to candidly ponder: What would truly benefit this community or individual? What actions can we take from our current position in time and space, bearing in mind that the parameters of creation may be scarce or, at times, deceptive?

The place where I most agree with Carmiella is in the need to find healthy ways of interacting between the human and the non-human. Delving into discussions about the boundaries and connections within virtual work holds promise for spaces where physical presence is unattainable, all while emphasizing the essential preservation of our embodied essence. This physicality is indispensable for maintaining a sacred presence, allowing us to hold space and accompany others in the digital realm, where the solitude of our screens often prevails. This is why it is so important to investigate more and ask us as a community about the best practices to relate to digital technology.

Experiences Around EXA and Technology

As this is a relatively new field of exploration, our experience using digital technologies is the first step to setting boundaries for an online practice. In the following paragraphs, we will describe our experiences and learnings in virtual work. In that sense:

> [the] situated knowledge and the subjectivity of the researcher is a useful perspective that uses an autobiographical approach that allows the researcher to experience the place of the researched subject in the figure of 'narrator'; This repositioning allows the researcher to install a 'care' because the researcher performs the same exercise as the other who is researched and allows them to experience how the methodological device, in this case, virtual reality, really affects and involves the subject, favoring that the actions performed from the researcher's place are even more careful … An autobiographical approach is a qualitative technique that can support the production of knowledge of which we are a part, to reappropriate the notion of objectivity as a parameter of rigor that is not synonymous with neutrality. (Cruz y otros, 2012, p. 256)[1]

Carmiella's Experiences

In one of her processes, Carmiella worked with an EXA therapist and designed her own images using

augmented reality. She began to describe her experience in the virtual world:

Here I will experiment with time travel, with time layering, with spatial blurring between dreams and realities, with and between physical and immaterial re-de-pro-constitution, virtual and graspable once-tangible moments recorded once then re-viewed again. Here I experiment with virtualized content that I venture to co-create as a dialogue between my past-present-future space-time of pulsating research into the aesthetic intersections of art historical philosophy, scientific research, and the Expressive Arts methodology. After this aesthetic dialogue, I will share my related findings from past art therapy-based creative healing processes which I experienced as a recipient of Expressive Arts Therapy that are resonant with the living inquiry of this article.

During her explorations, she asked herself questions associated with her feeling of using virtuality in her personal process with a therapist and described:

In our first sessions together, R and I focused on how EXA could help me safely scale the edges of imagined and actual reality without losing myself. Our sessions were over Skype, which triggered the layers of my struggle connected to engaging with virtual technology. I had become painfully aware of the reality of internet surveillance and manipulation and deeply distressed by the unknown dimensions of online communications. While ill, this duress had caused my digital communications with others to become increasingly bizarre and erratic. As I healed, my distress about the object permanence of these communications was overbearing.

During an online session with her therapist, Camiella began to work on a sensitization activity to help her connect with her body and environment by pressing their hands against one another and the stable surfaces around them: *The EXA therapist said a phrase that made me feel warmly accompanied: We are both alone in our physical spaces, but we are together in digital space. She then suggested making a drawing of the sensitization experience* (Figure 1).

Figure 1: Carmiella's sensitization process (2020)

During aesthetic analysis, Carmiella realized she was intrigued by the unintended illusion of depth in the ladder shape she had drawn on the right-hand side: *I noted that though I knew it was only a series of lines, once I saw it as a three-dimensional shape, I couldn't unsee it. Moreover, I was struck by how the ladder could be interpreted as going into or out of the page, but I could only see it as one way or the other at a given moment. In other words, I knew cognitively that it theoretically could be seen in multiple ways at once, but the phenomenon that my eyes interpreted would only allow one perspective at a time.*

In a dialogue with what emerged, she asked an important question: *Should I let technology get under my skin?* Then to better describe her perceptions, she wrote her physical sensations through a poem:

Illusion of absolute control, fleshy little being,
Disrupting, folding, heavy in on itself
You've never seen this realm, never will as a human
While you're busy measuring the scaffolding,
All is growing, buzzing, quietly tended by you
And cultivated by not you, by who/what/how you will never know
Crystallized, my dear? Reflect again…

Trying to frame her sensory perceptions, Carmiella wrote: *In this poem, I connected with a wise voice larger than myself which reminded me how particular my perspective is on the layers of reality, digital or not. This viewpoint reminded me how the dynamics of reality are far more complex, interweaving, and conscious than I can understand as one individual human. Martin Heidegger can be insightful here on the work of technology's relation to art where truth is found, "not as the correspondence of a subjective judgment to an objective state of affairs, but as an uncovering, a taking out of concealment of that which has been hidden or obscured" (Levine, 2005, p. 28). He saw a work of art as manifesting truth through its fundamental tension between concealing and revealing meaning, between its material and immaterial components.*

It is undeniable the impact technology has on our daily life and like the arts, it gives us the possibility to imagine our reality differently. Carmiella's art and writing pieces in this virtual medium are material and immaterial components of this article (Figure 2). As I read, I can connect with my exploration of the possibilities and limitations that technology gives to our understanding and physicality.

Valeria's Experience

Some time ago, I worked alone using online software to modify and develop images that helped me deepen and anchor my learnings on the exploration process in technology. At that time, I scanned a drawing I made by hand that I had titled "The Knife Woman." I did it to crystallize a movement exploration process, where I was working on the theme of Limitations. The scanning process took away the intensity of the original image and to make it look closer to the analog version, I decided to intervene digitally (Figure 3).

From that moment on, the intervention was almost never-ending. I realized that the digital medium captured and unfolded many of the ephemeral sensations I had within the dance and created other ones that were very interesting in many ways. Each modification of the image had a hypnotizing effect, although not always pleasant. The ease with which the software moved from one version to another was absorbing and a bit overwhelming, as the modification parameters were faster than I could process.

Figure 2. Print of "up" cycled intaglio-collagraph-printmaking-plate; Digital drawing with a physical tablet onto a virtual scan of the original physical print virtually animated in a 1 minute stop-motion by Carmiella Zorzi in 2021. See link: https://vimeo.com/904959780
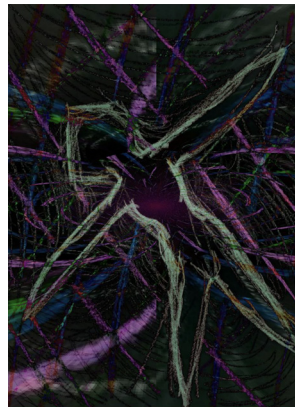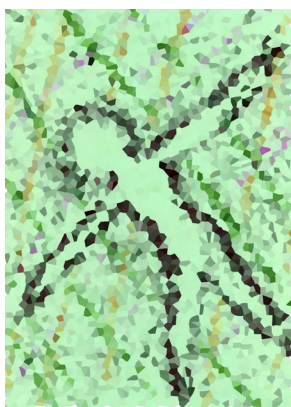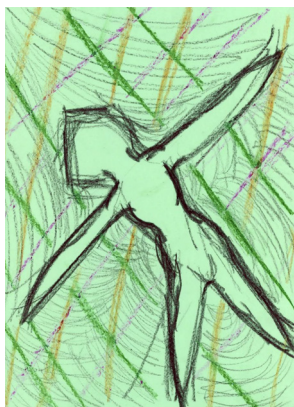

Figure 3. Selection of 3 out of the original 12 from "The Knife Woman" series by V. Gonzales (2018)

Somehow, that digital intervention spoke of my feelings in the movement process. Technology allowed me to unveil information that I could recognize, but which opened in many ways. If I had made those drawings manually, the process would have been much slower, and the information would have come at a different speed. Not being able to reproduce all those images manually in a short time was a limitation that protected me from the overload of information, but technology put on my screen, without a filter, many facets of myself and the theme of exploration.

I decided to write by hand about the ones that stood out the most and gave them names and phenomenological descriptions. Describing them in words made me realize that many of the images produced were versions of the same thing and little by little, I kept the ones that seemed to follow an evolution of the original theme. While I had a lot of information through the images, the exploration of limitations was the border that acted as a beacon in the vastness of possibilities that virtual reality offered me.

Following the thread of my topic gave me the opportunity to weave a specific narrative, from which I could generate some learnings. "Information is not the same as knowledge, yet they are often confused. Knowledge, like information, does not remain static. Both knowledge and information are only directly relevant if the recipient can propose and reuse what is known. However, information is of little use if we do not have the knowledge to know what to do with it" (Prior, 2018, p. 7).

Sentipensar

Working at the intersection between art and the virtual can offer a series of interesting benefits and opportunities. On the one hand, there is the retraining of our perception within virtuality as in Carmiella's experience, where through writing she anchored her learning. On the other hand, there are the possibilities that AI gives us to generate information at high speed as in my experience. Within both, the need to establish learning milestones and findings was a form of anchoring.

Setting milestones in EXA is an act of care and part of our aesthetic responsibility as practitioners. The writing was a way of grounding what the mind put in limbo. The physical experience of putting oneself in motion, even if it's a tiny one, is for me the most powerful way to re-embody our senses and something I didn't have the chance to talk to Carmiella about. In some of her texts, she explains how "the bridge between the antimatter of my imagination and the matter of my body was dance," and I would have liked to talk more about whether corporeality functioned as a bridge for her.

As a South American, the importance of anchoring in the body is intimately associated with the experience of thinking of myself and others in the world. I believe this influences my EXA and technology practice. My body is my territory of refuge, the place where my feeling and my thinking are unequivocally united, and it is this "Sentipensar" that leads me to ponder the parameters of physicality that we must consider for a safe practice in virtuality.

> "Sentipensar" is a term from decolonial thought that seems appropriate to describe what brings up the liminal work within art and technology, a term for the non-separation of body and mind: "sentipensar" (which we could translate as "feelthink"; hereafter, keep its original name). The term

was coined by the Colombian sociologist Orlando Fals Borda, who developed this concept after working with coastal Afro-Colombian communities, starting from the original proposal of "sentipensamiento." What is united is precisely that which has been separated: Thought (logic) from feeling (emotions and affections). "Sentipensar" with the ontologies proper to our territories of origin would imply having the will to enter the depths of knowledge, cosmovision's, and much more complex forms of interweaving the non-human with the human and thus privilege the communitarian in the broadest sense over the individual. (Ramos, 2020, p. 116)[2]

When space and place are transformed, the ultimate territory of refuge is the body, a space that houses who I am, what "we" I belong to, where I am, and where I am located; the body contains itself and what passes through the place. The territory within the virtual and AI contains a series of shifting, timeless, and sometimes unclear narratives.

The lack of tangibility of the data transmitted in cyberspace makes it difficult to delimit virtual territory and to make sense of the pieces and do something as a community; returning to the body, what it carries, and what it believes is naturally grounding. The variety of topics and questions that can appear "at the same time" can certainly exceed our capacity for physical and mental understanding. It is therefore necessary to know how we react to technology and what our leverage points are when faced with a changing reality. Working in the virtual world raises questions about our way of relating to our nature, to our parameters of mental health.

The work of the EXA community with technology makes evident something that our artwork claims every day: There is no mind-body separation. It is necessary to think of our humanity and its interactions as whole beings. Technology, virtual reality, and artificial intelligence are changing our way of seeing the outside world. However, our inner world is still woven according to very personal and cultural strings. Technology is highlighting the subject-self-reason concept, a reductionist Eurocentric construction that does not think of humanity as nature and therefore excludes what is evident in the arts: we are integrated beings, our ability to feel is what maintains the health of our existence. Thus, the concept of object permanence becomes relevant. It is curious that through technology, somehow, our natures have found a way to bring to light that body and mind are not separate mechanical objects. Through fragmentation, discomfort, and uncertainty, it highlights that we are beings with a desire for uniqueness and revelation. The experiences of art and technology are leading us to live an experience of chaotic fragmentation, however, it is necessary to live it to find new ways of living. Entering into technological exploration is a challenge on several levels, but also a necessity of our times, not only to adapt ourselves but also because "it is necessary to inhabit science poetically in order to revisit the foundations of reality" (Barrau, 2023, p. 43).[3]

The technology industry would especially benefit from the expertise that expressive arts specialists have. According to Prior (2018), there has been an awakening of understanding that has led to the acceptance of embodied knowledge, situated knowledge, and represented knowledge, which offers artist-researchers more useful insights than could be gained through scientific experimentation. Working through the senses gives us a wealth of tools to reach out to others through image, writing, voice, and gesture; it is through these that we can create clear frameworks (play) for people who cannot physically see each other. For this to happen expressive arts specialists have a duty to

train in new technologies and explore them as a new field of work, as a new art-based research involving the alliance of Techne & Poiesis. (Gonzales Gonzalez Cueva, 2018, p. 120)

It is important that as EXA practitioners, we build bridges of thinking that reflect the technological environment, our corporeality and needs for the world we inhabit, from our places, spaces, and territories.

Conclusions and Thoughts About Expressive Arts and Technology

In conclusion, the intersection of EXA and technology opens up a realm of possibilities that profoundly influence our understanding of creativity, consciousness, and interconnectedness. The symbiotic relationship between art, the body, territory, and technology provides metaphors that help us envision diverse scenarios and needs. The analogy of technology creating a "space of flows," akin to the water cycle, emphasizes the continuous circulation of memories and residues that remind us of the intricate timescales of the Earth.

As EXA facilitators, there's a call to personally immerse in the exploration of these mediums, recognizing the necessity to redefine the parameters of reality and physiological evolution. As technology continues to evolve, we grapple with its impact on consciousness and explore these effects phenomenologically through trial and error. Virtuality, AI, and related technologies hint at the existence of multiple dimensions simultaneously, challenging our bodies, seemingly designed to perceive one perspective at a time. This unfolding exploration suggests that we may be on the cusp of a new developmental stage that we are just beginning to articulate.

The imperative to maintain a digital archive of artwork emerges as essential in this digital age, not merely to preserve physical creations but to digitize images that allow for experimentation and play. Technology facilitates the capture of various artistic forms through photos, videos, and audio, triggering sensations and perceptions in our memories. The act of documentation, as highlighted by Prior (2018), becomes a tool for artists to monitor their creative processes, make informed decisions, and embark on a journey of self-reference and self-discovery.

EXA and technology collaboratively mitigate knowledge limitations and enhance collaboration within working groups. This symbiosis demands a blend of divergent and convergent thinking, coupled with imagination and embodiment. Our bodies-territories, with their remarkable capacity for feeling, serve as indicators of health and sources of sentipensar—a mode of thinking and feeling. This approach not only addresses technical aspects but delves into profound human and emotional dimensions.

In the fluid and changeable landscape of virtual space, the body-territory becomes our refuge and navigational reference. Delimiting the territories in which we recognize ourselves becomes a necessity for both EXA and technology. Asking fundamental questions about perception in art-technology research enables us to accompany others into their interests and truths. Clear parameters are crucial to guide our work, especially when assisting individuals in describing their physical conditions using limited sensory and virtual resources, underpinned by hope. Collaboration and virtual reality material break the perception of loneliness, providing expansive spaces for community creation and the pursuit of dreams and

interests. This, perhaps, is the most significant source of hope arising from the utilization of technology—its capacity to connect, inspire, and foster new ways of living.

Carmiella and I had a significant encounter in face-to-face life and in the virtual world. To honor the work we did together in the virtual space, I have had to name her again and again, to manifest her presence, so as not to turn her work into random data in non-existence. If through the waves of virtuality, you find this article and think you have found a resting place for your questions, please contact us, you don't have to continue alone through oceans of data. Perhaps we can build bridges to make virtuality a safer space for the bodies-territory that navigate it. Perhaps virtuality is just an excuse to create encounters.

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Endnotes

[1] Spanish to English translation by Valeria Gonzales.

[2] Translation Spanish to English by Valeria Gonzales.

[3] Translated from French into English by Valeria Gonzales.

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