Getting Dizzy: A Conversation Between the Artistic Research of Dizziness and Somatic Architecture

Ruth Anderwald, Leonhard Grond, and María Auxiliadora Gálvez Pérez

Abstract: *Getting dizzy is an essay in the format of a conversation between two experimental fields. Here, the fields of dizziness and Somatic Architecture are in dialogue in order to go deeper into their interconnections. Together they form also relationships to somatics and somaesthetics. Dizziness can be understood as a resource but also as a somatic state. Somatic Architecture uses somatic states in order to create systems of co-constitution of bodies and environments. In this conversation, the individual research fields intertwine with artistic, philosophical, medical, ethnographic, or architectural sources and case studies. This in-between field of the conversation appears in itself as an epistemic territory.*

Keywords: *Dizziness, Somatic Architecture, Somaesthetics, Somatics, Art, Architecture.*

Getting Dizzy: A Conversation Between the Artistic Research of Dizziness and Somatic Architecture

This conversation begins an exchange and cooperation between the artistic research project *Navigating Dizziness Together* led by Ruth Anderwald and Leonhard Grond (RALG), (University of Applied Arts Vienna) and the *Platform of Somatics for Architecture and Landscape* (PSAAP) directed by María Auxiliadora Gálvez Pérez (MAGP), (Faculty of Architecture San Pablo C.E.U. University, Madrid). It serves to clarify and understand how the fields of dizziness, *Somatic Architecture*, and somaesthetics overlap and connect, while examining the underlying thoughts on which the prior two are based in eight loosely tied chapters, following the expertise of the authors. The chapters are based on the reflection on previous work to not only clarify the authors' approach to their collaboration but also attempt to highlight the possibilities of a comparative as well as transversal consideration of the three fields.

1. *Dizziness*

RALG:

To begin, we will summarize our artistic research focusing on dizziness and its definition; we have expanded the original meaning of the term, which is laid out in detail in our book *Dizziness-A*

Resource (Anderwald et al., 2019). However, we translated the German word *Taumel* into "dizziness," and their meanings are not strictly identical. *Taumel* describes the positive, negative, and ambiguous feelings of being dizzy as well as the staggering movement of a body that is dizzy. Moreover, it is often used metaphorically—for example, the German expression "*im Taumel der Gefühle*" means acting inconsiderately while overwhelmed by emotions, such as rage, fear, sadness, joy, or love. The word is used on different scales, from the personal and emotional up to systemic levels, and can encompass an entire world that is out of kilter (e.g., "*die Welt im Taumel*"). Meanwhile, in the context of our artistic research, the word "dizziness" is used equally in a positive, negative, and ambiguous manner to describe a situation where an individual, or a group, even a society, is overwhelmed by being overloaded, or by the lack of sensory, cognitive, or emotional stimuli or input, and thus, unable to grasp the possibilities of reality in a habitual manner. According to Plato, dizziness creates the constitution of all philosophical thought by destabilizing the basis of knowledge to a state of uncertainty (Plato, Timaeus, 49e).

Conceptualized as an unpredictable movement or the feeling of such a motion, dizziness happens to and within the body. Moreover, it happens temporarily, conditionally, and situationally and could be aligned with Lucretius' *clinamen*, which is called the unpredictable swerve. As such, dizziness is not a theoretical concept only, and the physicality of the phenomenon is germane. The sensory organs that control our poise in relation to gravity and our surroundings and help us stay upright, oriented, and balanced are located in the inner ear. In this context, vestibular balance refers to the vestibules in the cochlea of the inner ear. In humans, equilibrioception, our sense of balance, is based on vestibular balance, sight, and proprioception, which is the ability to sense our body. Not only humans, but all mammals, birds, fish, and even plants have sensory organs for balance and gravity and the ability to react to its input, be it in terms of poise or direction of growth.

As a medical symptom, the sensation and intensity of feeling dizzy can only be described by the subject experiencing it, and it cannot be measured from the outside, like a fever can. At the same time, dizziness is a very ambiguous symptom and can lead to a variety of diverse diagnoses—from low blood sugar and problematic blood pressure to being indicative of a heart attack, stroke, or inner ear problem. Therefore, to get a precise diagnosis, it is necessary to explore and observe the factors that can be perceived from the "outside" by a physician, for instance, in addition to the patient's description. Meanwhile, psychobiological research goes even further by suggesting a deeper connection between our ability to maintain emotional and corporeal equilibrium and flexibility, further indicating remarkable comorbidity between anxiety disorders and a deficient sense of balance and orientation. Thus, by training our balance organ, we may very well train ourselves to be less anxious and easily disoriented; even more, it appears to have positive effects on our memorization capabilities[1].

The aforementioned remarks are meant to highlight that our artistic research on dizziness is cross-disciplinary, and our focus is not only on developing our theoretical concept, but also on creating a practice-based approach.

1 For example in: Rogge, A.-K. et al., "Balance Training Improves Memory and Spatial Cognition in Healthy Adults," Scientific Reports 7.34. Erez, O. et al., "Balance Dysfunction in Childhood Anxiety: Findings and Theoretical Approach," Journal of Anxiety Disorders 461 (2002): 1–16. See also Shefer, S. "Progressive Vestibular Mutation Leads to Elevated Anxiety," Brain Research 1317 (2010): 157–64.

2. Dizziness and Somatic Architecture

MAGP:

Dizziness, through the prism of my primary interest, is a somatic tool. I develop what I call "somatic architecture" (SA), which is a field where research, design, and creativity are based on "soma" experiences.[2] Further, its scope has been developed within the book, *Espacio Somático. Cuerpos Múltiples (Somatic Space. Multiple Bodies)* (Gálvez, 2019). In this book, I examined SA from the perspective of five aspects that should be considered when designing under its principles: "spatial navigation"—dizziness is deeply interrelated with this aspect in terms of orienting or disorienting architectures or devices; "living systems"—an understanding of the systems of the body and other organisms is necessary to apply this knowledge in architecture; "anthropology of the senses"—it is important to understand how different cultures and bodies give sense and meaning to their experiences as embodied organisms in space; "imagination"–it is necessary to be aware of the imageries that underlie our actions to be able to build new ones that can change our approach to architecture; and "embodied and situated cognition"–this aspect is particularly interesting when embodiment is being related situationally as happens in dizziness.

In this context, I believe that SA can be a methodology that changes the role of architecture in our time. The planetary climatic crisis is only one reason for this. Others may be linked to how architecture establishes political hierarchies between spaces and bodies and how architecture deals with the idea of "the natural." With SA, another way of building is possible—one that is able to create synergies between architecture and living matter and human and non-human organisms. All these capabilities are embedded in the five aspects mentioned previously. Additionally, in SA, we think that all bodies are original, equally valuable, and should be empowered by the same possibilities, and we also believe that our architecture must enhance the nature-culture continuum as is developed in post-human discourses.[3] Moreover, SA is differentiated from other approaches in architecture and theories of architecture by the systems that we study and implement, as they come directly from the soma experiences designed by us. Thus, SA can be seen as a theory and practice, but also as a design strategy. This will be further examined over the course of this conversation.

Through the process of somatic ethnography[4] and our own somatic awareness, we discover new ways of transforming the environment and building SA. Dizziness, in this frame, is one within our collections of experiences that is able to open new possibilities; indeed, it is very powerful. Additionally, it is a resource for us as it is in your artistic research project. Moreover, the drawing of one of our projects during the stage of somatic research is presented in Figure 1. Here, we propose a specific sensory-motor experience based on spatial navigation, including

2 "Soma" is understood here as equivalent to the body-mind conjunction. I will also use "body" under the same considerations; this includes the assumption of the body as subject, not as an object. The processes of the nervous system are part of this corporeality. In somatic experiences, through awareness, we can understand and study "soma" from its own way of operating. Giving voice to soma experiences, *SA* celebrates the value of otherness—as this experience may be different for any of us, is idiographic and recognizes original values – and allows the morphogenesis of the new to appear—it does not work with pre-conventions of forms but with the observation of the existing dynamics of the alive.

3 Rosi Braidotti specifies perfectly the approach to post-human considerations within her book *Nomadic Subjects. Embodiment and Sexual Difference in Contemporary Feminist theory*, New York: Columbia University Press, 1996.

4 We develop somatic ethnography following different methods from anthropology and the social sciences. On the one hand, we use interviews with semantic ethnography—a qualitative method—as Galen Cranz defines it in *Ethnography for Designers*, New York: Routledge, 2016. We also question specific groups about their embodied life experiences concerning architecture and landscape. We combine it with more detailed interviews about specific somatic experiences that we design through the Feldenkrais Method of Somatic Education, using IPA (Interpretative Phenomenological Analysis) methodology. In this case, the goal is to probe deep into how different people give different meanings to the same experience.

disorienting situations—that are dizzy—and observe which socio-political and cultural structures unfold from it and are meaningful for architecture. More specifically, in the experience, bodies have to follow a complex movement pattern that changes their planes of movement very quickly to face up and down and move laterally. At the beginning, this can be frightening and cause disorientation, but after some time, playful ways of doing it can be used to show that a clear orientation and security is not always the only option, but also that we can adapt our navigation using disorientation as a resource for richer spatial or socio-political relationships. Further, we experience this same event with different socio-cultural groups, and we learn together to develop the architectural project hosting these specific groups. In this case, we observe how ego and world are perceptually inseparable (Neisser, 1976) through cognitive maps and body images as well as how this affects our reading of, and acting in, the environment.[5] More specifically, the drawing is used as an interface to add parameters according to the ethnographical study. The universe that is unfolded here is architectural material. In this context, regarding dizziness, we then discover that maybe disorienting spatial structures can be used as a tool to include bodies with different capacities as agents of design. In this manner, we challenge the everyday present conventions of ableism.[6]

Thus, dizziness is a tool connecting—or disconnecting— us from our environments. It is a tool that allows us to challenge them.

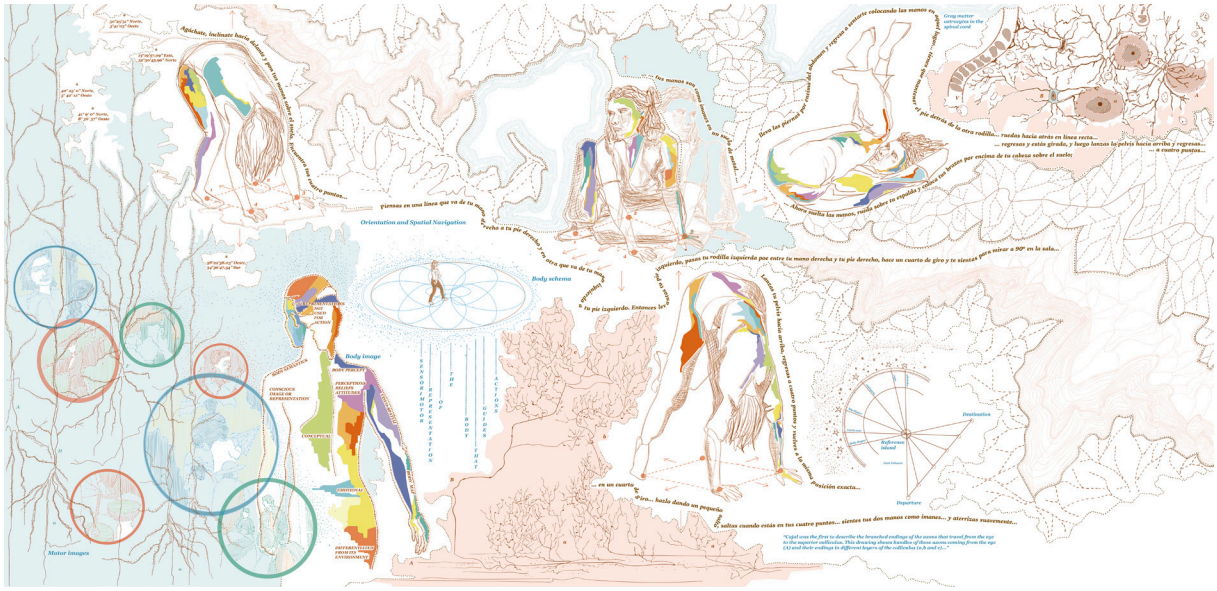


Figure 1 *María Auxliadora Gálvez (PSAAP), Pop-Up Somatic Architecture: Spatial Navigation (2018)*

RALG:

As much as it disconnects us, dizziness connects us with our environment and thus influences how we move and are being moved. Ahmed so accurately noted that "thinking about what

5 Psychologist Ulrich Neisser develops deeply the connection between ego and world, talking about the *ecological self*: *"I am the person here in this place, engaged in this particular activity"* (Neisser, 1987).

6 As other kinds of discriminations (racism for example), *ableism* is used in order to express exclusion produced on bodies with different capacities. The root of this is political. Disability is not located in the supposed disabled body in itself. What normally happens is that we establish that disability in comparison with a model of the supposed normal body, a privileged one. Normally in our western society, the privileged body is masculine, white, middle-aged and healthy. The election of this body as the model is not relaying in average but in an underlying political decision.

emotions do cannot be thought about without the sense of being in a body." Thus, her work examines "emotions in terms of ideas and values, that is as judgments about things: To hate or to fear is to have a judgment about a thing as it approaches" (Schmitz & Ahmed, 2014, p. 99).

However, when we become dizzy, our awareness might play tricks on us—for example, when we are drunk, we may think of ourselves as being stable when we are not. It presents a liminal state, where knowing or even creating knowledge can become ambiguous and confused. Therefore, purpose and intention might help us better our awareness in a state of dizziness. Here, to understand the connection of the individual and collective, the "inside" and "outside" as well as the personal and surrounding space and to navigate these interdependencies, we rely on the salutogenetic model[7] with its *sense of coherence*, which is seen as an adaptive disposition within the personality, as well as a global construct (national sense of coherence).[8] Thus, it expresses the degree to which we have a pervasive, dynamic conviction that the internal and external stimuli of our environment are comprehensible, manageable, and most importantly, meaningful. However, dizziness does not only take place on different scales but also at different intensities. It destabilizes, and as you said, blurs what we categorize as inside and outside (Feyertag, 2015). Further, the dizzying present moment may generate feelings equivalent to how philosopher Timothy Morton described being inside a hurricane:

> *To be inside a hurricane is to inhabit a "present" [...]. This is because a hurricane has its own temporality, not ours. We endure it, undergo it, in a nowness that is more like a slightly nauseating feeling of relative motion* (Morton, 2018).

Analogous to this description, dizziness seems to distort not only our proprioceptive awareness of ourselves, reality, space, and time but also overwhelms our emotions and sense-making.

MAGP:

The "body image" and "body schema"[9] that we have of ourselves can foster or inhibit our actions, dictate what we feel as possible or not, or what is going to be accepted in society. Here, it is probable that we find that purpose and intention can take us further from our sense of self and, as you say, create an unexpected action in the middle of the turmoil that allows us to gain a different self-perception. Indeed, this process can deconstruct not only what once was objective and subjective, but also *the body imaginary*[10] from where we build our environments; so, as I said, it becomes a tool to deconstruct these environments and constructions. Let me give you

7 Salutogenetic orientation is a model that can be applied at different scales from the individual to the societal. In principle, it is an interdisciplinary approach focusing on factors that support human health and wellbeing in a chaotic world, with an emphasis on coping mechanisms.

8 The sense of coherence is the core concept of the salutogenetic model developed by the American-Israeli sociologist, Aaron Anatovsky. It is considered an adaptive disposition within the personality that enables one to cope with negative experiences such as stress or illness. Based on the sense of coherence, "the sense of national coherence and its role as a mediator between levels of conservativeness and the tendency to delegitimize the 'other's' collective narratives," it is a recently developed concept in conflict research (Mana, 2019).

9 *"... this conceptual distinction between body image and body schema is related respectively to the difference between having a perception of (or believe about) something and having a capacity to move (or an ability to do something). A body image involves more than occurrent perceptions, however. It can include mental representations, beliefs, and attitudes, where the object of such intentional states (that object or matter of fact towards which they are directed, or that which they are about) is or concerns one's own body. The body schema, in contrast, involves certain motor capacities, abilities, and habits that both enable and constrain movement and the maintenance of posture."* As Shaun Gallagher explains (2005, p. 24). I would like to add here that body schema includes the environment, while body image does not.

10 The expression "body imaginary" is the translation of the Spanish expression "*imaginarios del cuerpo*," sometimes also translated as "body imageries." "*Imaginarios del cuerpo*" would collect all the assumptions that, consciously or unconsciously, we have about our own bodies. Following the thesis of SA, these assumptions affect the way we design and build the environment. By changing "body imageries", we can change our design actions and vice versa.

an example from the architectural world that can also be understood as an antecedent of SA. In the sixties, Ugo La Pietra created a collection of devices and texts conforming to what he called the "disequilibrating system."[11] As part of this, he designed "moments of rupture within the programmed base" in his devices called "immersions" or in projects like *Il Commutatore*. More specifically, the conventional perception was altered and bodies felt discomfort, so they had to question their reality. This discomfort is not an invented one, but an amplified discomfort related to what is already present in society; here, it is just enhanced. In this manner, La Pietra built to deconstruct, and the result was innovation in bodies and constructions.

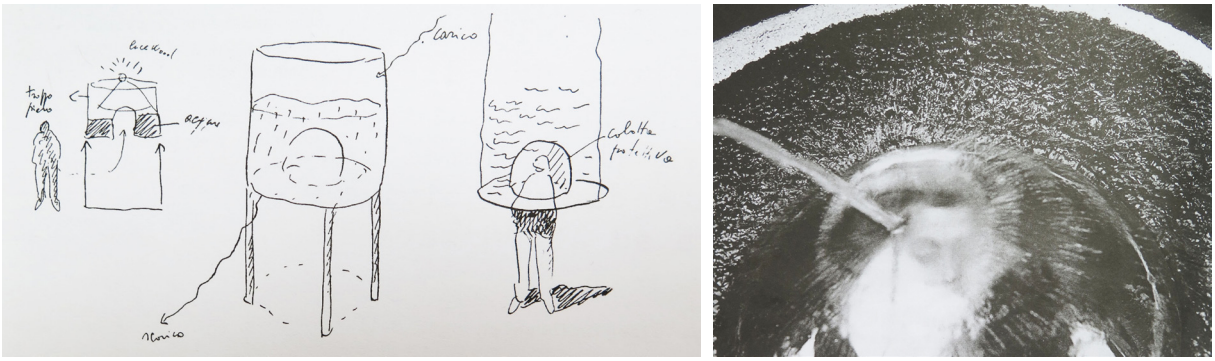


Figure 2 *Ugo La Pietra, Nell'Acqua (1970).*

RALG:

It seems we are inevitably exposed to dizziness in various contexts and intensities, and the following question remains: how can we or to what degree do we need to regain control? Moreover, somatic learning is based on the movement of the body in its environment, as the research on place cells and hippocampal maps have shown (Martig & Mizumori, 2010). Clearly, orientation and conscious awareness are bound to our sense of self, but the latter is bound to the awareness and orientation of our body (Chater, 2018). The sense of agency and ownership of our limbs is very much part of who we are as well as how we bond and operate in the world, but it can be lost. If, according to Shusterman, we have to understand soma as the lived, sentient, purposive body rather than merely the physical body that is "encompassing both subjective intentionality and material objectivity in the world," (Shusterman, 2011, p. 314) we need to ask the following question: what impact does the liminal state of dizziness have on our soma?

Here, let us consider an example. At 30 years old, Polish performance artist Karolina Wiktor suffered a stroke. After she came out of her coma, on the long road to recovery, she not only felt lonely due to her difficulties in communicating but also like she was coming from a different, dizzying world—from "planet aphasia" as she called it. Later, she even created passports and an app for "aphasians" to mark the difference. In this way, she took her experience of being affected and vulnerable to ameliorate her and her peers' day-to-day lives. Moreover, she launched her project *Cultural Neuroscience* to educate herself and initiate a dialogue between neuroscience and cultural actors. However, Wiktor found that being overwhelmed and restricted by this sort of physical manifestation of dizziness—that of not being able to move, communicate, and think—may also represent a capitulation to one's body and emotions, which brings with it a

11 Projects about the "disequilibrating system" can be consulted here : Rui, A. (ed.), "Ugo La Pietra. Progetto Disequilibrante. Disequilibrating Design," Milan: Triennale Design Museum, 2014.

corresponding conflict with social and architectural norms and a shift in what we regard as meaningful. Nevertheless, she also noted the potentiality of artistic practice as a significant possibility to navigate dizziness due to the fact that, as Finnish philosopher, Varto put it: "Artistic practice is extremely social; it […] seeks contact with others, and likes to be exposed. The arts practitioner is never completely detached: a connection will always be created, albeit by misunderstanding" (Varto, 2018, p. 12).

In a similar manner, this claim seems to apply to the practice of architecture that designs the private and public spaces we live in. However, and in keeping with Arendt, it is only in the public sphere that one can distinguish oneself from all others while being completely with others (Arendt, 1998). Again, a loss of movement, gravity, direction and/or connection can, under specific circumstances, serve as a resource to re-orient, rethink, and reconnect. However, to become a resource—be it for an individual or a group—resources are needed from within themselves and their physical and/or social environments.

3. Somatic Learning Through Dizziness

MAGP:

Somatic learning is certainly related to this question that you pose: How can we be exposed to dizziness—as inevitable as it is—and still feel that we have everything under "control"? I am not sure if control would be the word I would use. I would say that to have control, from my perspective, is to feel that we are still connected to our environment in a situation of coalescence and intertwining. I make this point because this is precisely somatic learning, which transforms something that once seemed unstable and threatening to us into a situation that we can easily inhabit. Further, it is at the root of SA to establish alternative synergies to make us feel safe like we are in a place where change is ever-present—this is something essential in any living process, and SA seeks to be a part of it as a manifestation of the nature-culture continuum.

Moreover, the breaking of habits and the training of embodied thinking in action, no matter the challenge, is interwoven with somatic learning. This is precisely why somatic learning uses instability as a way of giving us the impression of increased stability once the stimulus of being unstable decreases. Here, it could be said that somatic learning uses dizziness as a means to learn to comfortably inhabit any kind of situation. If you are able to do this, dizziness immediately becomes an incredible resource for discovery. Further, somatic learning uses dizziness to identify new possibilities for our soma but also for the environment, as we suggested before. It brings new "affordances" and creates different affective relationships. Additionally, it not only reveals new "body images" and "body schemas" but also new "environment images" related to action—"effect images" of the world according to von Uexküll.[12] It produces different time movements, inhabiting the present through immersive situations: going into the past—by means of memory—but also into the future so as to embrace uncertainty as one of the optimal terrains for obtaining new resources. Here, aspects of phylo- and ontogentic development are recalled to give us different perspectives on our time, knowledge, and being-with-the-world.

12 Jakob von Uexküll reflects on how the environment can have a certain "tone" for allowing actions (Uexküll, 1934 reprinted 2010). It is a similar concept that precedes today's well-known concept of affordance by Gibson (1966, 1977, 1979). Thus, somatic learning enlarges the "effect image" of the environment and the possibilities for action within it.

Figure 3 *María Auxiliadora Gálvez (PSAAP), Pop-Up Somatic Architecture: Multiple Body Memories (2018)*

Somatic memory acts primarily in critical moments. It becomes automatic based on previously learnt experiences, so that your system repeats the same responses and is thus related to habits. Contrarily, somatic learning is present when, within uncertain situations, you try out new responses to inhabit dizziness. In these moments, you do not prepare yourself in advance to take any action, nor do you use already trained actions. Thus, in somatic learning, you just think in action along with dizziness—you embody dizziness. In this context, SA works with all these modalities of somatic experiences. In the drawing shown in Figure 3, through a somatic experience based on very specific movements that are shared with other species and related to a specific medium like water—like the pulse of contraction and expansion of our hand acting like a jellyfish or the origins of crawling—we have the opportunity to recognize our deep relations with the planet and its living forms. We can relate this experience to the scientific data that tells us that the human genome is only found in 10% of our cells.[13] Thus, how can we design with disregard for nature and the non-humans once we become aware of this? When our body image changes, the vision of our environment changes, and so do our designs. However, to be within this experience can bring confusion but with it, a fusing in another way with the environment, like during dizzy situations. I would say that this is a kind of biological dizziness shaking our preconceptions and showing us a different way of navigation as organisms in this world.

13 Donna Haraway reminds us of this fact (Haraway, 2008).

4. The Compossibility of Construction and Destruction

RALG:

As a symptom of, and providing potential for, such transformative processes, dizziness has a destructive impact. At this point, we would like to emphasize its inherent ambiguity, even when it is resourceful. Thinking about your work concerning buildings and designs, the process of creation and ensuing innovation is a process of transformation, which affects our orientation and understanding of ourselves and the world. However, a resource such as dizziness is neither constructive nor destructive but needs to be extracted, which points to the means needed to facilitate its resourcefulness. Moreover, in the process of building, construction and destruction are necessarily intertwined, and even condition each other. To give an example from our artistic work: the becoming of an architectural space becomes manifest in the cultural activity of building, which includes destructive (tearing down the present) and constructive (building up the future) elements. In photographic series, we focus on construction sites. We show the transition of becoming, with its dangers and debris and its needs and desires as depicted in the following images (Figures 4–8).

Figure 4 *DC Towers (2013);* **Figure 5** *Hope of Glory (2007–2009).*

Figure 6 *From the series Construction Site As Far As The Eye Can See (2010–11).*


Figures 7 and 8 *From the series The Construction Site of Remembrance (2018–21). This set of work is by Ruth Anderwald and Leonhard Grond.*

Here, the construction site itself, with its scaffolding, acts as a cocoon. Moving from one form of existence to another—from idea to realization and from plan to building and then, later to occupancy—silent and resounding transformations occur (Jullien, 2011). The becoming of a construction site is the first step of the existential operation of an emerging space via a process of spatial differentiation. In becoming, the burgeoning space oscillates between an outside, from which it is not yet clearly distinguishable, and an inside, which has not yet been fully created. This transitional phase, between not-anymore and not-yet, is a moment of existential dizziness and compossibility and as such, is not restricted to sites of building but also applicable to other forms of growth, development, and coalescence. Nevertheless, the ultimate goal of a construction site, like that of a cocoon, is its own obsoleteness and disappearance. So, the question remains as to whether we can really "inhabit" dizziness. Here, it is worth noting that we are all subjected to the unpredictable borderlands of our experience, but "to inhabit" suggests stability in terms of a continuity of space and time.

5. Inhabiting Dizziness?

MAGP:

What you say about the transitional phases of the processes of construction-destruction is very interesting, and I would like to make their relation with coalescence more explicit. When matter is fuzzy under destabilizing forces like dizziness, objects and bodies tend to be mixed, so the limits are not very clear. In SA, we think of coalescence—the property of bodies of whatever kind being able to melt together, or at least to perform together—as a key aspect. Moreover, it is quite revolutionary to posit that architectural materiality is also the materiality that builds us and vice versa. Further, coalescence in SA is also a way of inhabiting dizziness. When multiple forces and attractions affect us, we could use them to come together with all of our bodies performing the actions of life and growing in architectural terms, like a chorus. In our project *The Skin in the Air* (2020) (Figures 9—11, 16), the architectural body is intertwined with others. Here, skin sensors are architectural sensors, and non-human organisms and living matter are the components of the material elements of these constructions. In this way, we did not talk about construction-destruction but about cycles of blooming and decay. SA does not want to remain fixed but to be part of the continuous metamorphosis of bodies and environments evolving

together.

Figure 9 *María Auxiliadora Gálvez (PSAAP). Image from the Project The Skin in the Air… Somatic Coalescence, (2020).*

RALG:

Coming back to the question of how to inhabit dizziness, writer, Franz Kafka seems to be the expert to turn to. In his work, dizziness is *conditio humana* to his literary characters affected by social and spatial occurrences. Further, he highlighted the interrelatedness of our sense of self, orientation as well as emotional and physiological balance.[14] In *Zürau Aphorisms*, he wrote: "The true path is along a rope, not a rope suspended way up in the air, but rather only just over the ground. It seems more like a tripwire than a tightrope."

The "true path" does not mean looking down from above, but refers to being more earthbound and also means tripping and staggering—as his words could be interpreted. This leads us toward an examination of this movement of the body using staggering triggers reflexes that are located in the lower region of the spinal cord. When staggering, we instantly relax the tripping, unsteady leg and simultaneously, tense the other one in an effort to regain our balance. Thus, this reflex opens a space-time of possibility and a compossible space-time of simultaneously falling, staggering on, and regaining equilibrium. Without the reflex of staggering, we must fall—just like when fainting, we simply fall. However, the compossibility of staggering affords us with additional—albeit uncertain—possibilities. Further, by taking away the certainty of falling, we gain new but uncertain possibilities. Thus, the resource of the compossible space is to open up a space-time within dizziness, from where the primacy of experiencing it can be acknowledged and addressed via an increase of possibilities.[15]

14 Franz Kafka can be perceived as an expert in narrating states and conditions of dizziness. Some of his works connect architecture and dizziness, such as his novel *The Castle* or his short story *The Burrow*. In his novels *The Trial* and *Metamorphosis*, it is an unbridgeable disparity between individuals' possibilities and the demands of the social surroundings that create dizziness.

15 The theoretical concept of the compossible space was further developed from an in-depth examination of the philosophy of, and in direct exchange with, French philosopher, François Jullien, and formulated with philosopher, Karoline Feyertag. See also: "Dizziness and the

Moreover, the corporeal motion of staggering and Kafka's aphorism remind us that all movements of the body (and building) relate to gravity. After leaving the low gravity space of the womb and being born, gravity becomes our main force of attraction. This groundedness is the reference point for our bodies and all the actions we undertake. To feel grounded, break ground, or lose ground are just a few examples of the many metaphors that show how predominant the feeling of gravity is—not only in our bodies and buildings but also in terms of how we organize our communication and thinking. Our thinking, acting, and environment as well as our "inside" and "outside" are intrinsically intertwined and permeable, but by becoming dizzy, their borders can become blurred beyond recognition. In this context, artist Hito Steyerl stated the following:

> *[…] free fall can trigger a feeling of confusion […]. While falling, people may sense themselves as being things, while things may sense that they are people. Traditional modes of seeing and feeling are shattered. Any sense of balance is disrupted. Perspectives are twisted and multiplied. New types of visuality arise* (Steyerl, 2011, no pagination).

Even more, dizziness can become entangling, as our colleague, the performance artist and artistic researcher, Laura Brechmann stated in her description of her experience of doing artistic research on dizziness:

> *The different episodes of the long-term project "In/Out Balance" focus all on the question of* dizziness *as a cultural, medical and subjective phenomenon. The project, started 2017, was originally planned to be one solo performance which examines* dizziness *from different angles […], the aim was to analyse, to encircle, to "catch" this fluid experience. Already in the concept, however, I made a methodical mistake: I got involved in the topic. A topic (a* dizziness*) became my topic (my* dizziness*). It attacked, seized, captured me. A distant, observational attitude was impossible, and the project developed a momentum whose alignment and outcome was beyond control* (Brechmann, 2021, no pagination).

MAGP:

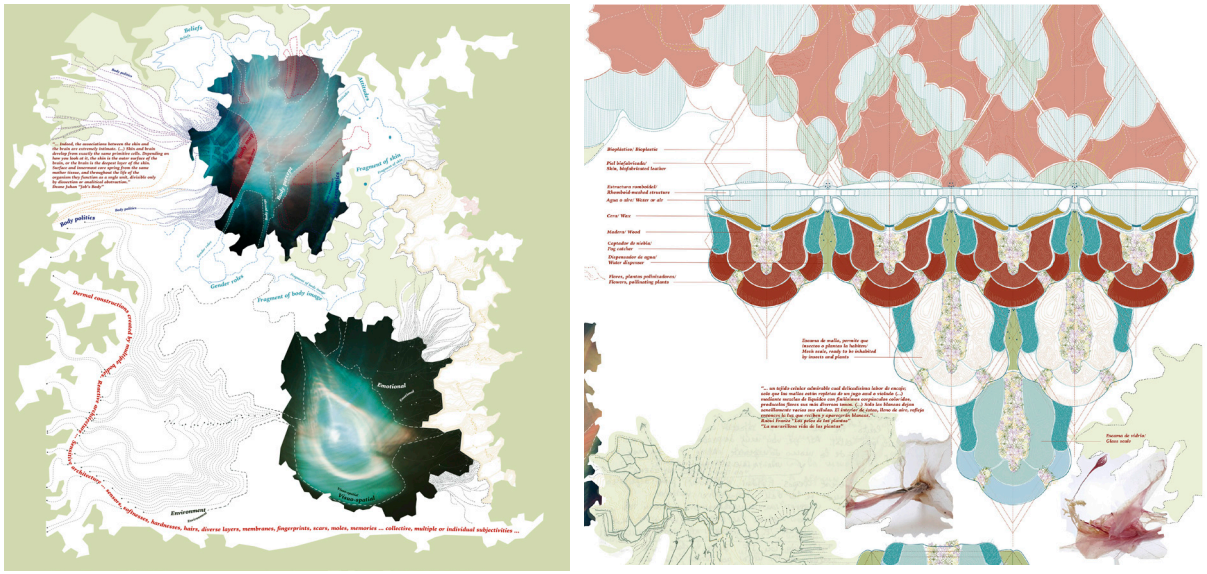
To inhabit dizziness has to do with feeling grounded—no matter how unstable it is out there. The orientation toolkit of a body can set its reference system in the environment, as happens with the place cells you previously mentioned. Alternatively, it can be set within the body itself, as happens with somatic considerations and with the navigational systems that our body uses that relate to the parietal and pre-motor circuits. Thus, both systems, geocentric and egocentric, work together. When you inhabit dizziness, your reference system goes with you to allow you to find alternative relationships with the world and bodies around you. In addition, I would say that as far as you can still set relationships of whatever kind with bodies and surfaces, you can inhabit dizziness. Further, bodies also ground to each other. That is why navigating dizziness together is especially relevant.

Moreover, I think that feeling grounded is connected to gravity. Gravity is an attraction force. Every time you feel an attraction and every time you feel compelled to be in touch with a surface or a body, you are grounded. Therefore, here, we will consider an expanded version of gravity as we will name *any* attraction force as such. From my perspective, dizziness needs

compossible space in research-creation," (Anderwald et al, 2017).

gravity—I defined it as the consequence of being under multiple attractions—and as you can imagine, SA inevitably always works with gravity as it puts attractions, surfaces, and bodies into play. Following this line of thinking with grounding, we establish an action-reaction dialogue between us and other "bodies"[16] in continuous interactions. Here, gravity is at play for at least two entities. However, when you have more participants, the movement accelerates. Gravity is a creative force but can also be destabilizing when density, direction, and velocity of forces increase. In such moments, dizziness takes place.

In Figure10, we map the different kinds of attraction or repulsion forces that different bodies feel in environments and spaces. In this context, architecture is not an inert material but also creates structures of power, ecological cycles, or affective moods. All those dynamic forces also "build" architecture, and SA then becomes a performative expression of the dynamic possibilities of architecture. More specifically, through somatic ethnography, we understand these dynamics, and through mapping, we can start transferring that material into spatial structures and constructive systems (Figure 11). Further, it is through this process that you can still feel grounded even when uncertainty is dominating the circumstances. The materials here are, as you see in the next figure, Wax, Wood, Water, Flowers, Insects, Bio-leather, and Grids to be Colonized by Non-humans like Birds. The unexpected and the dynamics of life co-constitute this architecture.



Figures 10 and 11 *María Auxiliadora Gálvez (PSAAP). Left: Bodies "with Multiple Attractions"; Right: Constructive System Following the Dynamics of the Attractions and Interactions. These are from the Project The Skin in the Air… Somatic Coalescence, (2020).*

From the point of view of SA, only when you cannot establish any action-reaction dialogue and when you are not under any kind of attraction force, can you feel that you are no longer grounded. Thus, here, you can feel groundlessness.

Moreover, SA tries to work with desire as an attraction force—as gravity. Without forcing them to, the different organisms function within this architecture together. We do not consider a state of groundlessness as being hosted by SA and setting the conditions for bodies.

16 I understand "bodies" not only refering to human bodies, but to any kind of entity able to establish relations within the described activity around gravity.

6. Un-thoughts: Groundlessness

RALG:

Exchanging ideas with you, we cannot be entirely sure whether we understand whether the consistencies we create are those that you aim for. Nonetheless, this is the dizzying basis of all interaction, directly linked to dizziness or not, that we often cannot be sure as to what the contact zones, communication channels, and languages we establish with each other mean to either of us or how to interpret them correctly. However, it is worth noting here, as Wittgenstein asserted, that "if I want the door to turn, the hinges must stay put" (Wittgenstein, 1969, §343). We have to make certain assumptions to start, even if we will possibly have to retract them as the process plays out. This problem concerns words, images, metaphors, underlying ethics and values, to name a few. So, let us try to lay bare the basics of our thinking and the places we start working from when thinking about dizziness. Let us also try to retrace what Jullien called the "un-thought."[17]

First, when considering "groundlessness" and the experience of the abyss, three philosophers come to mind: René Descartes, Søren Kierkegaard, and Marcus Steinweg.

Descartes described his state of mind as a state of soma, we would claim, at the beginning of his *Second Meditation*:

> *The Meditation of yesterday has filled my mind with so many doubts, that it is no longer in my power to forget them. Nor do I see, meanwhile, any principle on which they can be resolved; and, just as if I had fallen all of a sudden into very deep water, I am so greatly disconcerted, as to be unable either to plant my feet firmly on the bottom or sustain myself by swimming on the surface* (Descartes, 1903, pp. 224-225).

He does not only use the metaphor of suddenly falling into deep water, a space of reduced gravity, but, even more so, his soma seems deeply affected by his doubt in a way that his emotions become sensations that are transferred to the reader in his writing. On the other hand, Kierkegaard described "dizziness" as the anxiety that arises when realizing one's freedom, by giving the example of looking down from a vantage point. He went on to state that when looking down into the abyss, we are looking into "the possibility of possibility" (Kierkegaard, 1980, p. 188).

However, this was transported with allusions to the body in connection to its environment when he wrote:

> *He whose eye happens to look down the yawning abyss becomes dizzy. But what is the reason for this? It is just as much in his own eye as in the abyss, for suppose he had not looked down. Hence, anxiety is the dizziness of freedom, which emerges when [...] freedom looks down into its own possibility [...]. Freedom succumbs to dizziness* (Kierkegaard, 1980, p. 75).

17 "The un-thought or non-thought is the basis from which I think and [that which I, therefore] do not think. Actually, I tried to show the un-thought in this opposing tension of European philosophy and Chinese thought." François Jullien in 'Making Ambiguity Fertile is the Present Mission of Thought,' http://on-dizziness.com/francois_jullien/. Accessed 2021, 07.07.
"French philosopher Jullien goes off to China to find what is the un-thought of Greek thought – and Japanese philosopher Nishida turns towards the Occident to find what is maybe the un-thought of Oriental thought. Both are moving on this "common ground", creating and thinking out of this common source." Karoline Feyertag in 'Inside/Out and the Ground beneath our Feet,' http://on-dizziness.com/insideoutside/. Accessed 2021, 07.07.

Taking up the notion of the abyss and developing Kierkegaard's thought, Steinweg wrote in *Inconsistencies*:

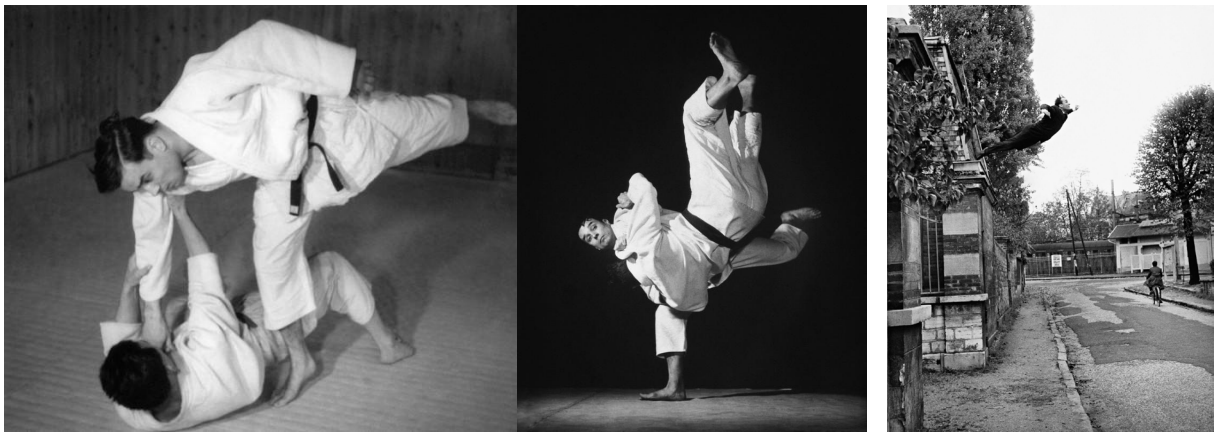
> *The experience of the abyss becomes the experience of an elementary disorientation and freedom […]. It is the experience of ontological incommensurability, which denounces the incommensurability of everything the subject holds as commensurable—all its certainties, values, evidence, and consistencies. In the existential philosophical sense, it is confronted with nothingness, which is another index of its desolation […]* (Steinweg, 2017, p. 16).

Moreover, the metaphor of losing ground, falling, or losing one's footing is ubiquitous, not only in philosophy but in our everyday language. As you said, you try to avoid groundlessness in SA, but what meaning do groundlessness, falling, and abysmal heights bear in connection to SA? Of course, a loss of gravity, direction, and connection can, under specific circumstances, serve as a resource to re-orient or reconnect, but to become a resource, an individual or a group needs support from within and the surrounding physical and social environment. Thus, the condition's inherent unpredictability clarifies why dizziness cannot be seen as a means of "self-design" (Groys, 2008).

MAGP:

I will try to clarify my approach using the somatic case study of Yves Klein from 1947, the year when he started to practice Judo. Within somatic practices, and specifically in Judo, gravity is an allied force. It does not matter if you are comfortably standing up on the ground—or lying on it—or if you are falling or traversing the air, you feel gravity, and so you are oriented, grounded, and intertwined in the dynamics of a medium you know. In this context, Klein explained that jumping into the air—into the void—is inevitably attached to falling, which he accepted. Additionally, the event of the "fall"- when you are suspended in the air for a while but feeling the force of gravity—gave him security to face the "vertigo of life."[18] He would go further, as for him, these moments without the support of the ground provide the foundation for his material imaginations. Thus, immateriality through falling was the way that he was able to use to open the door to that place where the body—material flesh—immateriality, and transcendence met. Moreover, the *Saut dans le vide* (Jump into the void) is the action that made him feel grounded. This is explicit in his statement, "*Un homme dans l'espace ! Le peintre de l'espace se jette dans le vide !*" (A man in space! The space painter throws himself into the void!) from 1960, or in his text, *Obsession de la lévitation* (Obsession with levitation). Here, I want to specifically note that if you feel gravity and you can deal with it through somatic learning and SA, then you can feel grounded. Soma needs a process, some time for training, and a lack of fear of it, but you have to feel it in your flesh as there is no other way to do it. Thus, we could say that groundlessness is a quality—or a problem—of soma and not only a quality or problem of the surrounding environment. Additionally, groundlessness exists when gravity does not exist, which I will further elucidate.

18 For a more in-depth insight into these ideas, see: "Yves Klein. Corps, Couleur, Immatériel," the catalogue of the exhibition of the same name set at Centre Pompidou in 2006. You can also visit the Yves Klein archive: http://www.yvesklein.com/. Accessed 2021, 07.07.



Figures 12 and 13 *Photos from the Online Yves Klein Archive. Left and center: Yves Klein practicing Judo in 1953 and 1955. Right: Un homme dans l'espace ! Le peintre de l'espace se jette dans le vide ! (1960).*

One could think that groundlessness and a sense of feeling lost and not being able to orient oneself can be created by doubt—as you referred to in the Descartes' passage—and it could have nothing to do with gravity as we conventionally understand it. But from a somatic perspective, and more specifically, based on SA considerations, we are again talking in terms of attraction forces and "gravities"—allow me to use the word in the plural—and so, in terms of dizziness. Moreover, here, I would like to visualize the "mind doubt" by Descartes as literally his soma in space being under multiple attractions. Here, it is worth noting that soma can be affected through different channels, but the dynamics are the same. Further, skin and nervous tissue are more closely related than we normally think; it is not in vain that they come from the same embryonic layer.

In addition, concerning these thoughts, I would like to refer to the text written by Steyerl that you already mentioned: *In Free Fall: A Thought Experiment on Vertical Perspective* (Steyerl, 2011). At the end of this essay, Steyerl wrote about Adorno's discussion on the vertiginous and how he questioned the repetitive philosophical fear of groundlessness, as philosophy would need ground or earth to be sustained. Here, we can understand that philosophical statements need solid support, but in this point, following Adorno, Steyerl proposed "a fall toward objects without reservation, embracing a world of forces and matter, which lacks any original stability." Therefore, it can be said that without the preconception of original stability, doubt is not necessarily a vehicle for groundlessness. So maybe, here, we can reformulate our words—we already said that groundlessness is a question of soma and not only of the environment and that in the presence of gravity or gravities, we do not necessarily feel groundlessness, but we could add that groundlessness is also a question of preconceptions and imageries.

On the other hand, I would like to address how bodies operate in the world where gravity is ever-present—planet Earth—as SA works within that hypothesis. I would like to do so by referring to the theoretical roots of SA. Their origins can be found in phenomenology and more specifically in the term, "somatology," coined by Husserl in 1912 who defined *somatology* as the science of the animated organism:

> *The perception and experience of animate organism- somatology, as we say- can be that which adopts the mode of theoretical experience and determines theoretical thinking. Since the specifically somatological is not a separate reality, but rather a higher stratum of being that is built upon material reality, the theoretical*

> *experience and cognition of the somatic being also requires material experience and corresponding material cognition.]…] somatology […] systematically establish relationships to the spheres of sensation in the physiology of the sense organs and the nervous system. The foundation is finally the direct "somatic perception" that every empirical investigator can effect only on his own body and then the somatic interpretation that he performs in the interpretive apprehension of perceived alien animate organisms as such […] According to this presentation, therefore, the whole doctrine of sensation dealt with by physiology and psychology forms a unity with all the well-known doctrines concerning the various peculiarities of the sense regions in their dependence on the sense organs and sense centers as well as on the nature of the physiological sense stimuli, a unity which, with the corresponding doctrines of "affective sensations", of sensations in the broadest sense, belongs to somatology* (Husserl, 1912, pp. 7-8).

In relation to these words, it would be the embodied experience, undertaken with "awareness" that helps us to build our theories and grounds our interpretations of otherness. Thus, the capacities, affections, and actions of the multiple bodies—that I understand here always as soma—are the ones defining, from my perspective, dizziness and grounding.

Further, this somatic embodiment also has political implications. Unfortunately, not all bodies have the same value in our societies. Some bodies are continually exposed to a supposed groundlessness that is only understood as such by privileged bodies that always feel safe. Some other bodies are not allowed to be grounded because of specific situations of the socio-political environment. Groundlessness, for this reason, is therefore a situated experience. It is because of this that SA works both, to give support to the more vulnerable bodies and to regulate – through somatic learning and awareness – the excessive requirements of the privileged bodies. Therefore, from phenomenology, we move into somatics with consideration of authors like Berleant and his aesthetics of the environment (Berleant, 1992); this is important because he sets the environment as something that grows in continuity with bodies. Moreover, if with somatics, we overcome the distinction between mind and body, with SA. we also overcome the distinction between body and environment: both participate in each other. It is in this way that SA operates, and the experience of feeling grounded is supported. In this context, Berleant remind us that "In architecture, there are not spectators: there are only participants" (Marsden Fitch, 1965, p. 706).

Finally, we think of SA as an animated organism in itself, and one that is acting in coalescence with others. Thus, we could say that SA "becomes" with them.[19]

7. Un-thoughts: Soma

RALG:

Some years ago, when we became interested in what comes before the explicit and reflective seeing, we started to read Maurice Merleau-Ponty. His writing about the primacy of the unreflective experience was highly influential as was his occupation with the artistic process—specifically that of Paul Cézanne, which to him felt like precariously walking in a dense fog where "no one can say where, if anywhere, it will lead" (Merleau-Ponty, 1964, p. 3). This served as the basis to define dizziness in the artistic working process as well as in our collaboration with

19 I further develop these ideas within the architectural project *The Skin in the Air… Somatic Coalescence* (2020) *http://psaap.com/en/the-skin-in-the-air-somatic-coalescence/*. Accessed 2021, 07.07.

creativity research.[20] Nevertheless, we see the phenomenological approach as limited whenever we cross the border to losing ourselves completely or becoming unsure of ourselves, as it may happen in states of dizziness when (self-)awareness is increasingly altered if not lost. Moreover, the examination of dizziness needs both the recounting of the experiencing subject and the reflection, response, or observation from a different perspective. We can assess this both in medicine and artistic expression. Thus, we need experience and reflection in both divergent and convergent ways of thinking. Self-examination and awareness can make somatic knowledge more explicit and reflective. However, if "somatology […] systematically establish relationships to the spheres of sensation in the physiology of the sense organs and the nervous system" (Husserl, 1912, p. 8), the question is where does the reflection come in and what does it mean? From the viewpoint of dizziness research, we can say that the definition of the "sensations in the broadest sense," based on the work of Husserl, lacks the notion of reflective and implicit sense-making in contrast to the field of somaesthetics. We discovered somaesthetics after reading about (and practicing) Feldenkrais. Similarly, dizziness affects us on an individual level but also has an impact on a greater scale, as it can be shared and always exists within a system of relations (Scheler, 1913). In this context, Feldenkrais substantiates our criticism of Husserl's quote when he connects vegetative and nervous states of the body with cognition and reflection, strengthening the fact that we need to take the following into consideration:

> *[…] the structure of the nervous system is such that it is hard to imagine purely sensory or motor or vegetative impulses. The most abstract thought has emotional-vegetative and sensory-motor components. Abstract thinking is possible only in conjunction with a special configuration or pattern or state of the body* (Feldenkrais, 2005, p. 36).

Understanding soma as an instrument of perception, experience, and cognition, as well as a site of expression for and communication with the surrounding environment is indispensable for an examination of dizziness, which is a problem of the soma. More specifically, it affects our soma and within our orientation, our emotions, judgment, behavior, memory, and cognitive capabilities as well. Thus, that which had felt right or seemed clear and meaningful later loses relation and meaning.

Furthermore, somaesthetics gives significance to the notion of ambiguity. Apart from becoming constructive, dizziness clearly has destructive potential. Within this multi-faceted potential, the notion of ambiguity is essential, and it was first introduced to us by French philosopher, François Jullien when discussing dizziness. Here, it is here understood to create a fundamental ambiguity that brings all elements back to their non-separated state, allowing all categorization to become fuzzy, temporary, and confused. Jullien reframed our approach of productive dizziness as "making ambiguity fertile." Moreover, he insisted that "making ambiguity fertile is the present mission of thought" (Jullien & Feyertag, 2015, no pagination). His approach has been germane to our understanding of dizziness as a force that creates uncertainty, confusion and instability and within that, ambiguity and possibility. This space-time of ambiguity that we also call the compossible space, as per Jullien, allows for new perspectives, elements, and experiences to emerge.

20 This study served to locate dizziness in artistic working processes. Benedek, et al. (2017). *Creating art: An experience sampling study in the domain of moving image art*. Psychology of Aesthetics, Creativity, and the Arts, 11(3), 325–334. https://doi.org/10.1037/aca0000102.

> *But there is a dimension, which seems fertile in this moment of dizziness, when things become confused because they lose their equilibrium and find themselves suspended from clarity—this dimension is ambiguity. […] This is the moment when the precedent determinations and oppositions, by which we have been thinking, are fusing – "con-fusing." From this "con-fusion" emerges a fundamental ambiguity, the non-separation of opposites that is fertile because it enables an outside of our current oppositions, and from this outside, other determinations could result* (Jullien & Feyertag, 2019, pp. 57-58).

In terms of somaesthetics, Shusterman mentioned the soma as the "fundamental ambiguity of human being in several ways. First, it expresses our double status as object and subject […]" Then, there is "the ambiguity of human existence as both shared species-being and individual difference" (Shusterman, 2006, pp. 3-4). Following Shusterman's work, it can be said that soma as an instrument of subjective perception has intentionality and knowledge, but it is simultaneously an object in the world and part of a world of objects, which is how it knows things. It experiences and knows things from a particular perspective and can be experienced, observed, and known. In this manner, it seems closely related to SA, and we think it a good starting point for our collaboration, despite our different points of (theoretical) departure. Furthermore, this connects to your elaboration on the space of somatic learning in SA. However, due to this existential confusion, a community affected by dizziness is deprived of a shared ground or basis. Thus, a capacity to tolerate ambiguity must first be achieved in the individual, as your practice proposes.

MAGP:

Your discussion proved to be very interesting. In my case, I started to become familiar with Maurice Merleau-Ponty years before knowing that Husserl conceived of the foundation of a science called somatology. I appreciate the original definition given by him in relation to the confluence of physiology and psychology. Nevertheless, I would like to strengthen the differences between phenomenology and somatics, as I have already suggested. Phenomenology mentions accessing the flesh of the world through experience, but in somatics, you are also impelled to pay attention to how you do what you do in the world; this can be done through reflection or through embodiment, which is the option actually chosen by somatics—recognizing multiple and diverse bodies. Concerning extreme states of dizziness, maybe you do not have self-awareness in a conscious way, but you are directly embodying dizziness, and that in itself has meaning. However, it is true that self-examination is sometimes not possible when dizziness is present. But sometimes, it is not exactly what we call awareness or self-examination (which are different matters), it is what is involved in an action or event that is somatically meaningful to us, and we are just embodying it. Further, this moment becomes meaningful at the very instant of embodiment without necessarily a subsequent reflection. During somatic experiences, it is true that we cannot maybe talk about being aware of something or that we are unable to find the words, but the meaning emerges anyway without rationality, and sometimes, soma knows in advance. Further, sometimes changes appear first in the flesh—for example, in an accident or physical trauma—and this affects our way of thinking and feeling before we can reflect on it and extract conclusions. However, sometimes we are never able to extract conclusions from a reflective point of view. Nevertheless, this does not mean that the effects on our soma do not exist. Thus, the question to be answered is how can we work with somatic or phenomenological experiences considering your observations about sense-making? Let me steer the conversation again—by going back to the beginning—into the methodology we use in SA.

At the Platform of Somatics for Architecture and Landscape (PSAAP), when designing a device, architecture, or landscape, we need to have an idea about how this design can act in synergy with a multiplicity of bodies. In this way, the design can sustain and create collaborations between organisms and the architectural systems in themselves. This is how, some years ago, we started working on a project about the anthropology of the senses.[21] The focus here was that while biology or neuroscience can define how our perceptive apparatus works, perception also has cultural and personal dimensions, and with the same physiological apparatus, different people perceive different things. Thus, if I want to make a situated design, I need to know more about the anthropology of the sensorial and for that, the already mentioned methods of somatic ethnography have to be used.

In the end, the question here is regarding how people give sense and meaning to their own experiences, which are also understood in a diverse way by different bodies. The methodology to answer this question also includes my/our interpretation of it, so idiographic, hermeneutic and phenomenological approaches can collaborate to research and understand somatic knowledge and discoveries, so that we can design using this information.

Thus, I think that this combination of approaches considers the different stages of sense-making, including not only those that are ongoing but also their deeper sedimentations.

Figures 14 and 15 *María Auxiliadora Gálvez (PSAAP), Participatory Processes for Somatic Ethnographies in Bilbao and Hamburg (2019).*

Figure 16 *María Auxiliadora Gálvez (PSAAP), The Skin in the Air… Somatic Coalescence (2020).*

21 An example of this can be seen at: http://psaap.com/en/pop-up-somatic-architecture/. Accessed 2021, 07.07.

8. Concluding Thoughts

RALG:

As you pointed out, environments are not only built or constructed by us, but deeply connected with us and in reciprocity, shape us as we shape them—affecting our thinking, agency, abilities, and imaginary capabilities. However, these interdependent relations between our environment and us are inherently ambiguous. In this context, the elemental confusion that dizziness spreads may help us to overcome thinking in dichotomies as well as the clear-cut gaps between individualism and collectivism or humans and non-humans, for instance, because this is what thinking in dizziness means: not to think in a distinct, categorized, and orderly manner, but to allow confusion to enter our thought, so that we can stumble, stagger, and shift from what we habitually use as our basis and un-thought. Moreover, dizziness as a "concept in motion" needs a mode of thinking infused by movement—one that is not relying on fixed points but on moving relations and shifting anchor points (Anderwald et al., 2018, p. 123). This mode of thinking in motion is present in both SA and somaesthetics.

More specifically, SA, as a theory, as well as a performative practice and design strategy, can put this concept and its artistic, architectural, social, political, environmental, and health-related implications to the test. In this context, somaesthetics' attention to somatic expression might act as a missing link between our approaches. As addressed artistically and architecturally in our exchange, embodied thinking-in-motion holds the potential to overcome the traditional oppositions of certainty and uncertainty, groundedness and groundlessness, construction and destruction, knowing and not-knowing "because there is space and movement in-between professed opposites, which can become productive" (Anderwald et al., 2017, p. 129) in moving towards new knowledge, abilities, and meaning.

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