

CONCEPTUAL LABORATORY OF DEPTH: OLAFUR ELIASSON'S *YOUR ATMOSPHERIC COLOUR ATLAS*

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"The present epoch will perhaps be above all the epoch of space." Michel Foucault continues: "We are in the epoch of simultaneity: we are in the epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed. We are at a moment."¹ In this era of the simultaneous, space has become an ever more interesting but complex concept. With the invention of the Internet, mobile, and ubiquitous computing technology, we now live in permanently connected space that is constantly being redefined in real time. Data and images augment and reshape our experience of space, creating a new kind of temporal moving landscape. Promoting awareness of living in a multidimensional world that blends the here and now of each individual, the notion of telepresence has reconfigured preexisting relations. The boundary between meditated space and physical space is blurred, as the physical space becomes an interface that activates virtual experience of that space; we live in mixed reality creating collective realm crisscrossing different times and spaces. In this environment, exploring the notion of space has been a challenging and important task for artists. Playing with the diverse possibilities and limitations of technology, artists are actively involved with the notion of space and its relationship to human body and technology in their own ways.

In particular, Olafur Eliasson's *Your Atmospheric Colour Atlas* (2009) challenges conventional conceptions of space. While a variety of technological space productions compress the experiences of time and space, giving access to virtual content from anywhere and anytime, Eliasson's specific environmental setup expands the spectrum of being in a space. Rather than display how the idea of space is formed in the context of technological development in a direct way, *Your Atmospheric Colour Atlas* brings participants together into an embodied experience. Reaching beyond the confines of formal and artistic framework, Eliasson creates an artificial environment that allows experience of a temporalizing space that is only accessible through bodily movement. As a conceptual laboratory, *Your Atmospheric Colour Atlas* fosters a physical and sensate experience with the environment, but more importantly, with reflection on that engagement. It is a speculative experimentation on the intrinsic relationship

between bodily being and its environment through first-hand experience.

In what follows, I discuss the complex present, or now, as the depth of field-of-presence, by examining the different artistic elements in *Your Atmospheric Colour Atlas*, which include bodily movements, color, and afterimage. I borrow the term "depth" from Maurice Merleau-Ponty's insightful observation on primary spatiality. Merleau-Ponty defines depth as the first dimension that grounds perception of the world. As a spatio-temporal field of presence that sustains the coexistence of being and other things through the perceptual connective tissue (flesh) of the world, depth indicates the primordial sense of spatiality that enables awareness of bodily presence in the world. Bodily presence in the world already suggests that body and world are inherently interdependent; they can only be differentiated in "being-together." This crossing of body and world marks the first threshold: the root of all other thresholds and the root of our sense of space. To provide further comprehensive discussion of participants' experience of depth in *Your Atmospheric Colour Atlas*, different space conceptions of a variety of phenomenologists, including Merleau-Ponty, are revisited.

In order to examine the notion of depth that underlies the intersection between time and space, this essay also addresses the challenge of time, the notion of internal time of Edmund Husserl, and how Husserl's conception of time was reconstructed by Merleau-Ponty, within the context of the originary unity of time and space, the spatial construction of the field-of-presence (the *Präsensfeld*).

Depth: Space of Body, and of Time

Your Atmospheric Colour Atlas invites participants to an artificially constructed environment where colored mist surrounds the body in a room lit from above in the colors red, green, and blue. One can only see a few feet ahead. As the individual slowly moves around, she enters the borders between the different color zones; the hues mix to form magenta, cyan, yellow, and white, where colors meet. It is an open and unfolding space of light with uncertain

limits and distances that escape Euclidean geometry. Not being able to orient herself with her vision, the only thing she feels is her bodily dwelling in the colored space. As she tries to locate herself in this invisible, but deep space, she can never suspend her awareness of her body's physical and contingent presence in this space. Elizabeth Ströker, a contemporary phenomenologist, calls such a space "attuned space." Attuned space is a kind of phenomenal space that is all enveloping and comprises the atmospheric dimension of an attuned being. Ströker continues: "Space is not primarily an object for a subject who performs acts of spatial understanding. Rather, as attuned space, it has an appropriate mode of coexistence with the corporeal subject."² Such coexistence escapes conceptualization of the relations and connections between subject and object, but underlies "the primordial and intransgressible bond between the corporeal subject and space."³ The space is more tactile than visual, as mist, the materiality of color, touches the participant's body. The gap between space and the participant's body is filled. Space and the body are deeply interwoven as they influence each other. I regard the tactile and deep space that grounds perceptions of one's own presence, or depth. The participant dwells in depth in *Your Atmospheric Colour Atlas*.

In this specific environment, which allows participants to dwell in depth, the body feels the surround of the space, as a wearable space. As a pure atmosphere rather than an art gallery, "the space [in perception] is directly coupled to the movement and experience of bodies."⁴ Mark Hansen explains wearable space in relation to a specific technological space that results from the superposition of two different conjunctions: the coupling of the human body and technology, and the coupling of the body and space. *Your Atmospheric Colour Atlas* can be considered wearable space in which invisible technology (that emits the mist) assists in the direct coupling between body and space; technology is seamlessly embedded in space, and this technological space becomes activated and revealed in the reciprocal relationship with the affective body. As Hansen explains, "[S]pace becomes wearable when embodied affectivity becomes the operator of spacing."⁵ In this wearable space, space is never preconditioned nor predefined; space unfolds itself, as the affective body becomes an active "enframer" of the space. It is in this artificially constructed wearable space that depth, a force that sustains and connects different things, is visualized in colored mist. Pressure and vibration between space and body come to the surface of awareness as the micro movements of colored mist move in tandem with other movements.

As in wearable space, one finds two dynamic couplings in the conception of depth explained by Merleau-Ponty. The one is the interrelation between space and body, and the other is one between time and space. In this way, depth can be better elucidated as a spatiotemporal event preserved by the bodily subject. Depth is neither the third dimension subtracted from geometrical measurements of height and width nor the temporal depth that only connotes historicity. Instead,

depth designates the spatiotemporal dimension where bodily subject experiences the distance between one's self and other things. In embodied experience, depth allows the experiencing body to construct a perceptual horizon that connects the body and the world; the crossing of (the extraordinary depth of) the body and (the ordinary depth of) space is indispensable in the experience of the depth. Secondly, according to Merleau-Ponty, coexistence that defines space is not alien to time, but space and time both belong to the same temporal wave in perception. Merleau-Ponty explains: "The order of co-existence is inseparable from the order of sequences, or rather time is not only the consciousness of a sequence. Perception provides me with a 'field-of-presence' in the broad sense, extending in two dimensions: the here-there dimension and the past-present-future dimension. The second elucidates the first."⁶ Space in experience becomes accessible only when we understand it as temporal in the field-of-presence.

This intrinsic intertwining between body and space, and space and time of depth is experienced in *Your Atmospheric Colour Atlas*. Such space in Eliasson's art is not space in a traditional sense, a physical container or a conceived object that is static and accessible to measurement, but rather a mode of coexistence constantly in flux and scarcely accessible through conceptual framework. Space is an active force that spatializes in relation to an experiencing subject rather than to the passive ground of the subject's action. Eliasson comments that, in the traditional understanding of space, it "becomes a background for interaction rather than a co-producer of interaction. But what takes place is, in fact, a double movement: the user's interaction with other people co-produces space which in turn is a co-producer of interaction."⁷ As the interactions are continuously evolving, space only exists in time. Or, as Eliasson puts it, space is "of time."⁸ In other words, returning to Merleau-Ponty's notion of depth, space and time are two chiasmic dimensionalities of the flesh rather than two separated entities. Reciprocal insertion and intertwining of one in the other can only be accessed through the bodily movement in the embodied experience that Eliasson's experimental setup offers to its participants.

Afterimage: Experiential Framework of Depth

The color in *Your Atmospheric Colour Atlas* is perceived as materiality of the space that fills out the in-between, between the viewer and the space. Depth becomes visible as the surrounding colored atmosphere changes along with different movements of light, mist, and participants. Eliasson's use of color, which changes from time to time, induces an afterimage experience. Afterimages, commonly considered as a temporal event that involves a sequential relationship with their sources, will be discussed in the following paragraphs as both a temporal and spatial event that visualizes the idea of the originary unity of space and time in the lived experience of Eliasson's work.

Eliasson takes color seriously and critically in his various experiments, and speculates that color signals the essential mechanism of being and its relationship to the environment.⁹ Francis Varela explains, "color is a dimension that shows up only in the phylogenetic dialogue between an environment and the history of an active autonomous self that partly defines what counts as environment."¹⁰ Color is the byproduct of the spectrum of light, as it is reflected or absorbed, as received by the perceiver. Color is generally understood to relate to a perceiver, who is in a specific sociocultural context. Meanwhile, something must induce this color perception in the perceived (object): to be red is to have a certain feature that reflects red but absorbs other colors. With color, it is necessary to understand that, "1) colors are properties in the world (or physical objects), to which one's color vision is sensitive; and 2) colors are qualities that one's perceptual experience represents objects as having."¹¹ Color is, thus, a property that neither wholly belongs to the perceived object nor to the perceiving subject. Rather, it interlocks with both and only becomes visible within a dynamic negotiated process between object and subject. Color is a virtual property that actualizes (or colorizes) itself only in the process of the reciprocal interaction of the world and the body. Color perception, thus, already indicates the intrinsic coupling between subject and object. It is color as it-is-in-reciprocity.

Changes in color, as phenomenal events in *Your Atmospheric Colour Atlas*, compel participants to experience afterimage. In this sense, I define afterimage as a bodily imprint of the immediate past in the thickness of the present. In *Your Atmospheric Colour Atlas*, Eliasson self-consciously works with the duration and intensity of illuminating color so as to explore the human visual perception associated with afterimages. According to Josef Albers, an afterimage is a sign of bodily capacity that endures the intensity of color stimuli. The nerves on the human retina are tuned to receive any shades of red, yellow, and blue, and if one stares at red for a certain duration, this will fatigue the red-sensitive parts, so only the mixture of yellow and blue (which is green, the complement of red) will occur in one's eyes.¹² Goethe explains afterimage in *Farbenlehre* (1810). Through his observation of the luminous experience, Goethe conceived of afterimage as existence in terms of inner and outer radiance. With Goethe in mind, Jonathan Cray observes that an afterimage is "the empirical fact of 'internal' illumination [which] seemed a confirmation that subjective experience was not simply a passive reflection or reception of sensations or data about the world, but rather that individuals, like autonomous light sources, imposed or projected themselves on the world, in a sense giving the world its own colors. In relation to two familiar metaphors for the human mind, afterimages affirmed the 'lamp' over the 'mirror' model."¹³

To a certain degree, an afterimage is a self-projection onto the world, as it appears in mind and overlaps onto and transforms the image of the world. However, when thinking of the afterimage, it is necessary to understand that it is always in relationship with the world, the source of the self-projection. What an afterimage provides is

the reversal of the previously perceived, a temporal and sequential, but productive, self-projection in the process of mirroring the world rather than the illuminating self as autonomous light sources. What an afterimage confirms is that, indeed, two interconnected movements are taking place simultaneously in perception of the world: the active phenomenal self that actualizes itself in the process of mirroring, and the actualization of the self that is always mediated through the body. Afterimage portrays a double movement of the body: the body as receiving and producing. According to Eliasson, this particular kind of movement provides a sense of "double perspective" which allows participants to see themselves from the point of view of the world. Again, afterimage demonstrates that one experiences the crisscrossing between world and the self, or depth in the embodied experience of *Your Atmospheric Colour Atlas*.

Afterimage illustrates the perceiving body in its temporality. Now let me address the perceptual structure of time. As demonstrated in the afterimage experience, the recognition of its own structure offers a way to understand the depth that resides in the intersection of body, time, and space. An afterimage appears when exposed to a certain amount of duration of color stimuli, and when vision fails to function normally due to fatigue. An afterimage experience is a trace of the past lived through the body. For instance, in *Your Atmospheric Colour Atlas*, one moves from green to blue. As the specific part of one's retina is no longer sensitive to green, what one experiences is a ghost image of red overlapped into atmospheric blue. As such, the viewer will see purplish color in the air. The passage of color transition is what constructs the thickness of one's own now, which has been thickened with the having been. For this reason, I use the term "corporeal retention" to describe an afterimage, for it prolongs the bodily holding of the immediate past to the present.

Here I refer to Husserl's "retention," but only to differentiate it from his experience of time in pure consciousness. If this retention is an immediate past, which constructs the sense of presence for the transcendental ego with the tripartite of past, present, and future in a linear time structure, then the bodily retention of the afterimage permits rediscovery of the bodily dimension of the immediate past, which prolongs and lives the moment of now. Retention in Husserl is reconstructed in Merleau-Ponty, in the *Phenomenology of Perception*:

Husserl uses the terms protentions and retentions for the intentionalities, which anchor me to an environment. They do not run from a central I, but from my perceptual field itself, so to speak, which draws along in its wake its own horizon of retentions, and bites into the future with its protentions. I do not pass through a series of instances of now, the images of which I preserve and which, placed end to end, make a line. With the arrival of every moment, its predecessor undergoes a change: I still have it in hand and it is still there, but already it is sinking away below the level of presents; in order to retain it, I need to reach through a thin layer of time. It is still the preceding moment, and I have

the power to rejoin it as it was just now; I am not cut off from it, but still it would not belong to the past unless something had altered, unless it were beginning to outline itself against, or project itself upon, my present, whereas a moment ago it was my present. When a third moment arrives, the second undergoes a new modification; from being a retention it becomes the retention of a retention, and the layer of time between it and me thickens.¹⁴

Indeed, Merleau-Ponty goes beyond the Husserlian conception of time. In his unfinished book *The Visible and The Invisible*, Merleau-Ponty criticizes "Husserl's error...to have described the interlocking on the basis of the *Präsensfeld* considered as without thickness, as immanent consciousness."¹⁵ He then renounces the punctuality of presence in a linear structure of Husserl's time: "Husserl's diagram is dependent on the convention that one can represent the series of nows by points on a line."¹⁶ For Merleau-Ponty, the present does not follow the past as the present, but it constantly renews itself as a transcendental now. The past and the present are rather simultaneous in a dimensional present or *Welt* (world) or Being: "...the past is 'simultaneous' with the present in the narrow sense. ... in fact here is indeed the past adheres to the present and not the consciousness of the past that adheres to the consciousness of the present: the 'vertical' past contains in itself the exigency to have been perceived, far from the consciousness of having perceived bearing that of the past."¹⁷

Like the relation between body and the world, the relation of the present to the past in Merleau-Ponty can be characterized as a chiasm: the intertwining structure that allows reversibility. The present and the past interlace with each other while they maintain their own dimensionalities. Referring to this state, Renaud Barbaras observes: "The present envelops the past because the past presents itself as such, because the past designates a modality of presence; but to this degree, the past envelops the present, because in order to give rise to the past, the present must slip into it and participate in its being."¹⁸ In an afterimage, it is possible to see the bodily trace of the immediate past along with the present, interlaced in the moment of now and prolonged through each other.¹⁹ While the past and the present cannot coincide, they exist interlaced in the invisible passage in one's perception. As noted above, in the experience of afterimage, time is not perceived as a homogeneous, mathematically differentiated series of points, but as lived time, a present that binds and overlaps past and future. If one understands time in such an entirely new way, how does it give rise to better understanding of space? How do they relate each other? If the past, the present, and the future have chiasmic structure in which separated temporal dimensionalities overlap onto each other rather than separated points, one will be able to draw an entirely new picture of time-space connection.

Merleau-Ponty is not the only philosopher to explain the intrinsic intersection between space and time in the Western history of space studies. However, most studies have failed to provide a broader context of perceptual space/time continuum in which the

experiencing body is included. For example, space-time continuum appears as important in Albert Einstein's general relativity. However, Einstein's space/time still holds an objective and independent position toward experiencing subjects; space/time exists in outside of the subjects. The idea of space/time only remains as a mental construct, as he believes in a space/time that is merely a set of coordinates, suitable for describing the relative positions of bodies, but having no more reference to the physical world than do Euclidean points and lines.

Later on, contributions made by different philosophers including Henri Bergson liberated time from a fixed, homogenous, and linear structure. Space, however, was still left out as an inert object that only separates and divides the world of things. In this way, the gap between time and space has been enlarged. Elizabeth Grosz critiques Gilles Deleuze's reading of Bergson on space as "a multiplicity that brings together the key characteristics of externality, simultaneity, contiguity, or juxtaposition, differences of degree, and quantitative differentiations." In this sense, space is "discontinuous, infinitely divisible, static," and always operates in the realm of the actual. In Grosz's observation, Bergson's notion of duration was developed in opposition to his understandings of space and spatiality. While duration is "a multiplicity of succession, heterogeneity, differences in kind, and qualitative differentiations," which is continuous and virtual, space is homogenous and infinitely divisible. Ströker also notices the common misunderstanding of the interconnection between space and time that comes from the limited notion of space, "taken as a location of points next to one another, that is related to a new, a temporal point."²⁰ In this relationship, space belongs to time as a one-dimensional formation, such as a spatial continuum, and the interconnection between space and time becomes understood as a mere coordination of different points. Although Bergson acknowledges "the becoming one of the other," and "the relation of direct inversion between space and time," space and time are represented as discrete phenomena, as separate in their various qualities and attributes.

Space, however, as Grosz observes, like time, is "emergence and eruption, oriented not to the ordered, the controlled, the static but to the event, to movement or action."²¹ Space evolves as time does. While space and time maintain their own dimensionalities, they are always interchangeable and come together in embodied experience as bodily movement incorporates time into space and the latter into the former. This deeper layer of the interconnection of space and time becomes visible in the forms of lived spatiality and temporality; temporal components are traceable in the spatial structure, and spatial components are traceable in the temporal. For example, if afterimage represents itself as a temporal event, it is also perceived as spatial. Brian Loar states that experiences of afterimages represent "luminous happenings in *strange spaces*," which suggests that an experience of an afterimage could include information roughly like "there is a reddish luminous occurrence over there," where "there" indicates a position in the "strange

space."²² Afterimage is experience as "in-between" space. The afterimage is perceived as being "there," but "there" is always in relation to "here," where the seeing body is. Time is dissolved in the experience of presencing the space.

In the experience of afterimage, time is no longer perceived as manifold points in lived experience. The "now," as experienced in *Your Atmospheric Colour Atlas*, is a multi-layered, thick temporal event that takes place at the encounter between the world and the body. This phenomenon embodies bodily anchoring of the world as well as crisscrossing between time and space. Afterimage is a manifestation of bodily space in its temporality.

Conclusion

Your Atmospheric Colour Atlas allows participants to experience the depth of field-of-presence in which one finds double crisscrossing between body, time and space. This foggy, uncertain, and tactile space escapes any visual measurement traditionally available to geometric space. The perception of space can only be initiated by the spatializing ability of the lived body. This is the space that spatializes itself with one's bodily movements as the time flows. By making a break with habitual space, *Your Atmospheric Colour Atlas* not only visualizes but also conceptualizes the chiasmic dimensionalities of body, space, and time. This is an embodied space that always entails the primary relation of the living body to space. In regards to the body and its relation to time and space, Merleau-Ponty states, "We must therefore avoid saying that our body is in space, or in time. It inhabits space and time." In Merleau-Ponty's understanding, space and time appear as an originary unity lived through the body:

Insofar as I have a body through which I act in the world, space and time are not, for me, a collection of adjacent points nor are their limitless number of relations synthesized in my consciousness, and into which it draws my body. I'm not in space and time, nor do I conceive space and time; I belong to them, my body combines with them and includes them.²³

As an expressive space, or the origin of expressive movement, the body is both spatial and temporal, and through the medium of the phenomenal body, space and time are no longer separate entities, but they become intertwined and envelop each other. Merleau-Ponty continues: "co-existence, which in fact defines space, is not alien to time, but is the fact of two phenomena belonging to the same temporal wave."²⁴

In *Your Atmospheric Colour Atlas*, one discovers his or her body in the thickness of the now, a dynamic spatiotemporal passage where past, present, and future come together in embodied experience. Depth is an ontological structure of space in temporality that can be accessed only through the lived body. As a concept of primordial spatiality that both connects and separates things in the world, depth is better understood as a force that sustains relations between body, space, and time while encompassing them. The in-between space of things in *Your Atmospheric Colour Atlas* is densely filled

with colored mist. It is a tactile hold of the space onto the phenomenal body. Generally remaining beneath the surface, the invisible depth becomes visible in this conceptual laboratory as one discovers the thickness of field-of-presence between space, time, and body.

ENDNOTES

- ¹ Michele Foucault, "Of Other Space," in *Visual Culture Reader*, eds. Nicholas Mirzoeff (New York: Routledge, 2006), 229.
- ² Elizabeth Ströker, *Investigations in Philosophy of Space*, trans. Algis Mickunas (Athens: Ohio University Press, 1965), 20.
- ³ *Ibid.*, 19. I understand this primordial and intransgressible bond between the body and the environment as a question of "bodily presencing" itself. Simply put, to be being, one's body must occupy a space. So there must be an essential interlaced space between the body and the world that allows the very basic sense of being, thus primordial and intransgressible. This theorization finds its origins in Merleau-Ponty, who defines depth as a primordial space that grounds the sense of being. It is the very first dimension of perception that grounds one's being and understanding of the world. In the Heideggerian sense, one would say that the thrownness (*Geworfenheit*) of Dasein, in which Dasein finds herself already thrown into the world.
- ⁴ Mark B.N. Hansen, *Bodies in Codes - Interfaces with Digital Media* (London: Routledge, 2006), 175–176.
- ⁵ *Ibid.*
- ⁶ Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (New York: Routledge, 1962), 309.
- ⁷ Olafur Eliasson, "Models are Real," in *Models: 306090 Books, Volume 11*, eds. Emily Abruzzo, Eric Ellingsen and Jonathan D. Solomon (New York: 306090, Inc., 2007), 18.
- ⁸ Olafur Eliasson, "Your Engagement has Consequences," in *Experiment Marathon: Serpentine Gallery*, ed. Emma Ridgway (Reykjavik: Reykjavik Art Museums, 2009), 18.
- ⁹ Olafur Eliasson, "Some Ideas about Colour," in *Olafur Eliasson: Your Colour Memory*, ed. Richard Torchia (Glenside: Arcadia University Art Gallery, 2006), 75–83.
- ¹⁰ Francisco J. Varela, *Ethical Know-How: Action, Wisdom, and Cognition* (Stanford: Stanford University Press), 1999.
- ¹¹ Susanna Siegel, "The Contents of Perception," in *The Stanford Encyclopedia of Philosophy* (Fall 2011 Edition). <http://plato.stanford.edu/entries/perception-contents/>
- ¹² Josef Albers, "Interaction of Color," in *Olafur Eliasson: Your Colour Memory*, ed. Richard Torchia (Glenside: Arcadia University Art Gallery, 2006), 35–41.
- ¹³ Jonathan Crary, "Your Colour Memory: Illuminations of the Unforeseen," in *Olafur Eliasson: Minding the world*, eds. Olafur Eliasson and Gitte Ørskou (Aarhus: ARoS Aarhus Kunstmuseum, 2004), 209–225.
- ¹⁴ Merleau-Ponty, *Phenomenology of Perception*, 483–484.
- ¹⁵ Merleau-Ponty, *The Visible and The Invisible* (Chicago: Northwestern University Press, 1968), 173.
- ¹⁶ *Ibid.*, 195.
- ¹⁷ *Ibid.*, 244.
- ¹⁸ Renaud Barbaras, *The Being of the Phenomenon – Merleau-Ponty's Ontology* (Bloomington: University Press, 2004), 224.
- ¹⁹ For example, when one moves from red room to blue room, she sees purple space for the first few seconds that has been thickened with red (trace of the past that is the having been) and blue (the present). It is the moment of "past presencing future."
- ²⁰ Ströker, *Ibid.*, 37.
- ²¹ Elizabeth Grosz, "The Future of Space: Toward an Architecture of Invention," in *Olafur Eliasson: Surrounding Surrounded*, ed. Peter Weibel (Karlsruhe and Cambridge: ZKM and The MIT Press, 2001), 252–260.
- ²² Emphasis added, Brian Loar, "Transparent Experience and the Availability of Qualia," in *Consciousness – New Philosophical Perspectives*, eds. Quentin Smith and Aleksandar Jokic (Oxford: Oxford University Press, 2003), 80.
- ²³ Merleau-Ponty, *Phenomenology of Perception*, 161–162.
- ²⁴ *Ibid.*, 309.