

MAGDALENA FERNANDEZ

AND THE ETHOS

OF DIGITAL GEOMETRIC ABSTRACTION

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ABSTRACT:

This paper deals with the work of the Venezuelan artist Magdalena Fernandez whose practice emerged in the 1990s to explore the potentiality of the language of geometric abstraction at the intersection of visual arts and design. Whilst revisiting the legacy of Modernism through Minimalist aesthetics, Fernandez contributes to the formulation of a grammar of geometric abstraction which she articulates by means of digital and multimedia practices. Emblematic of this is the mobile painting, *2iPM009*, 2009, in which Fernandez extends the canons of formal composition through a multiplicity of registers that integrate spatial, structural, and graphic investigations, and is supported by a system of computation that uses digital animation techniques in analogy with sound and light effects through the format of a video-installation. This paper examines the artist's interest in rethinking the pictorial language of modernist geometric abstraction through a multimedia language, questioning agency and legacy.

KEYWORDS: geometric abstraction; ethics; genealogy; ecology; animation; sound; digitalization; multimedia language.

1. Introduction

Since 2002, the work of Magdalena Fernandez has emerged from the context of Contemporary Venezuelan and Latino-American arts to become internationally recognized for its contribution to the language of geometric abstraction. The Fernandez's practice emerges from a multifaceted background that is rooted back in her training in mathematics and physics education at the Andrés Bello Catholic University in Caracas in the 1980s. The work of the artist has been influenced by her interest in spatial and graphic design whose studies she pursued under the supervision of AG Fronzoni in Milan in the 1990s. Since 2002, the artist has chosen to focus on her artistic practice, dealing with the legacy of geometric abstraction which since its foundation, aimed to "speak" a universal language.¹

This paper is an investigation into Fernandez's practice with the aim of discussing the artist's experimentation and expansion of the possibilities of geometric abstraction through forms of digitalization that encompass graphic, sound, and light effects in video and installation formats. This paper proposes an analysis of the fundamental features that constitute Fernandez's practice by renegotiating the parameters of modernist abstract painting with a new media-oriented approach.

2. From formalism to digitalization

The work of Magdalena Fernandez embodies the spirit of modernist geometric abstraction in its pure intentions and non-representational forms. In this manner, the work of Fernandez sits along with the tradition of pictorial abstraction which is found in the work of major artists such as Kazimir Malevich (1879-1935), Piet Mondrian (1872-1944), Sol Lewitt (1928-1944), and Jesus Soto (1923-2005). However, diverging from the formal tendencies of these traditional forms of abstract geometric arts, Fernandez suggests that the true spirit of geometric abstraction is not to be found within the binary opposition between ideality and individuality. Rather Fernandez extends the canonical critical interpretations of this style to pose an ethical question concerning existence, experience, and multiplicity. In fact, by addressing a female interpretation of this language, her work does not

¹ On the foundation of geometric abstraction, we refer to the Suprematist theory by the Russian painter Kazimir Malevich (1879-1935) as posited in the Suprematist manifesto *The Non-Objective World*, 1927.

interpret universality through ideal forms, but Fernandez is rather interested in investigating the relationship between humans, nature, and genealogies, both in terms of ethics and legacy. Her contribution shifts the ways of thinking about the fundamental features of modernist abstract painting, and this is most evident in her use of digitalization and multimediality as I shall discuss in detail in Section 4.

In the wider context of artistic discourse, the Venezuelan philosopher and critic, Sandra Pinardi, who extensively commented on Fernandez's practice (Pinardi 2006, 2011, 2018, 2019), dwells upon the historical and stylistic transition between Modernism and Contemporary Arts in the essay *Contemporary Art. An Offering to the World*, 2019. In her essay, Pinardi explains this turn as a strategic and aesthetic shift that results from cultural changes and civilization models determined by technological advances by questioning what it means to be human at the present time. Two fundamental features, Pinardi argues, give evidence to this historical and stylistic evolution: the definition of the very notion of the work of art and the socio-political context where the work of art is presented. Pinardi states:

While in modern art, the work is an autonomous “object,” defined by its formal and expressive qualities, in contemporary art, the work is an “event” defined by the fissures that it can generate in cultural sectors and discourses.’ (Pinardi 2019)

To observe the difference between the work of art as an object (*art-object*) and as an event (*art-event*), Pinardi adds, means to supersede the modernist and formalist theorization of the work of art as a critical exercise of subjectivity. According to Pinardi, an artistic “event” is not the result of an individual production but is rather a determination of multiple political and relational paradigms. Significantly, Pinardi adds, this follows that the implications that the critical function of the work of art as an event becomes secondary to specific physical and contextual conditions and mechanisms (Pinardi 2019). Pinardi's observations are key to understanding Fernandez's approach to geometric abstraction because they justify the artist's interest in superseding canons of abstract pictorial investigation to integrate analogue, digital, and video-animation techniques, thus addressing a new frontier

for the language of geometric abstraction. This is evident for example,² in the series of works *Video-Apunte*s, from 2002, an ongoing series of exercise studies as homages to the work of master abstract artists. It is also eloquent in the series of *Mobile Paintings*, from 2002, a body of video and installation works that experiments with the possibility of configuring a geometric abstract experience through spatial practices. With these series, Fernandez proposes a series of non-representative and non-objective works configuring an event as it is experienced and shared in the place of the common. In this regard, this paper discusses how Fernandez addresses a new orientation for the language of geometric abstraction with freedom and fidelity.

Firstly, this paper examines why Fernandez's works should be understood as events in a genealogical sense because they imply an ethical opening; an encounter between the master artists of geometrical abstraction and the artist herself, making her practice subject to constant renegotiation. It should be noted how a genealogical approach is not new in this field. Referring to the significant contributions of Latin-American artists such as Gertrude 'Gego' Goldschmidt (1912-1994) and Jesus Soto (1923-2005) who critiqued the excessive neutral formalism of some modernist art and repositioning abstraction within political and social contexts (Barreiro, Phelps de Cisneros 2014),³ we can understand how genealogy has been a constant feature of the history of geometric abstraction. As a later generation artist, Fernandez makes explicit this lineage in experimenting across genres and disciplines, and in integrating Minimalist strategies of transparency in her spatial, graphic, design, and computation practices. This helps to determine her preference for video and video-installation formats.

Secondly, this paper suggests that by refusing the aesthetic category of the work of art as an object, Fernandez's works are events in ecological sense because they concern nature ethically. I propose that to underpin her research is an ethical question concerning how beyond subjectivity, nature reflects the universal. Two elements, in particular, make evident Fernandez's interest in the purity of natural elements as a means of ecological disposition: her use of water and light as primary

² For a comprehensive classification of Fernandez's works including drawing, photography, sculpture, video, installation, and architecture, please refer to the artist's website: www.magdalenafernandez.com.

³ On the work of Latino-American Abstract Painters in the 1960-70s, we refer to the statement of the exhibition *Radical Geometry*, presented at the Royal Academy in London in 2015 (Barreiro and Phelps de Cisneros 2015).

sources of investigation. In fact, in her work, both light as pure energy and rain as a form of renewal affect sensory perception and the conscious mind. This translates into material sources of human expressivity which Fernandez experientially and visually enacts by drawing analogies with sound and geometry respectively. Significantly, through these elements, Fernandez shifts away from the formalist interest for composition towards the inherent qualities of these sources given as reverberations of the natural world. Further, this informs her synthetic method of investigation, which she applies to the use of analogue, digital and multimedia.

Differently from the idealistic position of the master artists in the 20th century, Fernandez deals with nature through an ecological and ethical position. This is a choice that is not only determined by the affective intentions of the artist particularly in relation to Venezuelan landscapes, but more extensively by her early training in physics and mathematics education that provided her the tools to reflect upon natural laws through a reductive and rigorous method of analysis. Commenting on Fernandez's work in the exhibition *Surfaces*, at Museo de Arte Contemporáneo, Caracas and Cisneros Fontanals Art Foundation, 2006, the art critic and curator Alicia Torres, states: "the work engages the process of naturalization of the abstract and abstraction to the natural" (Torres 2006, 14). This ecological approach allows Fernandez to displace the ideality of the language of geometric abstraction within the substrate of nature in ways that make her work an event configured in the process of actualizing the universal as virtual.

Genealogy and ecology are the fundamental features of Fernandez's appropriation of geometric abstraction. Her work opens up to a system of events and subject-object's relations as seen already in her early installation works such as *2i000*, 2000, a site-specific piece consisting of seventy spheres of iron and black elastic band drawing a relativistic and multiple geometry⁴ in the gallery's space of Galleria Disegno Arte Contemporanea in Mantua in 2000. To follow up on Pinardi's thought, these positionings determine the material and contextual frames of Fernandez's work, giving emphasis to processes of practice and production as a means of action and assuming a political function as the patent of her work within

⁴ Although not exhaustively contemplated in this study, the reader must acknowledge the extensive debate centuries in the field of geometrical representation and which posed into critique the traditional system of Euclidean geometrical representation to advance proposition concerning categories such as manifolds and space-time continuum in the field of differential geometry (Riemann 1854; Poincaré 1900; Einstein 1905).

the context of exhibit. “The relational character of the works of contemporary art,” as Pinardi defines it (Pinardi 2019), supersedes the traditional critical function of the work of art to translate into a mode of experimenting with and “being among the others,” a function that is not a way of structuring a substance, but an action that expresses and modifies the social political fabric of production and experience. Pinardi’s observations well apply to a reading of Fernandez’s work because they explain the artist’s interest in critiquing the formalist neutrality of some modernist abstract composition to deploy, instead, an ethical and relational connotation to geometric abstraction. This implies, as Pinardi remarks, that the work of art as an event is produced and perceived in a materialist, performative, and bodily process, functioning as a critical and reflexive substrate for the spaces of signification (Pinardi 2019). This is evident in Fernandez’s practice because her artworks are not objects, neither forms. Fernandez’s works are rather events visualized in the realm of experience and configured through forms of digital agency which make the work of art a dispositive for the production of possible relations and experiential knowledge. This is most apparent in Fernandez’s videos and multimedia-installations which operate by means of algorithmic and cryptic formulae and animation – thus, the title of her works – and corresponding to her use of a black and white register – a stylistic quotation of the modernist style in art and design (AG Fronzoni 2000) – which all make her use of geometrical figures subject to a process of becoming and immersion.

Drawing from these contextual and stylistic observations, this paper argues that Fernandez’s work challenges the formalist use of the pictorial language of geometric abstraction by articulating processes of genealogy and ecology into forms of digitalization and multimedia arts. To justify this formal shift, in the next section, this paper analyzes one of the most emblematic works by Fernandez, the *Mobile Painting 2ipm009*, 2009, through a reading that interprets Pinardi’s commentary through the thinking of the postmodern literary critic Katherine Hayles, who, in *Writing Machines*, 2003, examines how the introduction of digital practices such as electronic literature, first-generation hypertexts, and multimedia language have determined an opportunity for rigorous interaction between contents and environment in the literary context (Hayles 2003, 7). The advent of digital practices in contemporary literature, Hayles remarks, allows expanding the boundaries between text and sensorial perceptions by deepening connections as

ways to master text into a context as signifying practices (Hayles 2003, 7). Through a comparative reading of digitally informed artistic and literary languages, this paper examines the new orientation suggested by Fernandez, and aims to deploy the conditions for thinking about geometric abstraction in terms of digitalization and multimediality.

3. *2ipm009*: A mobile painting integrating sound effects and digital animation

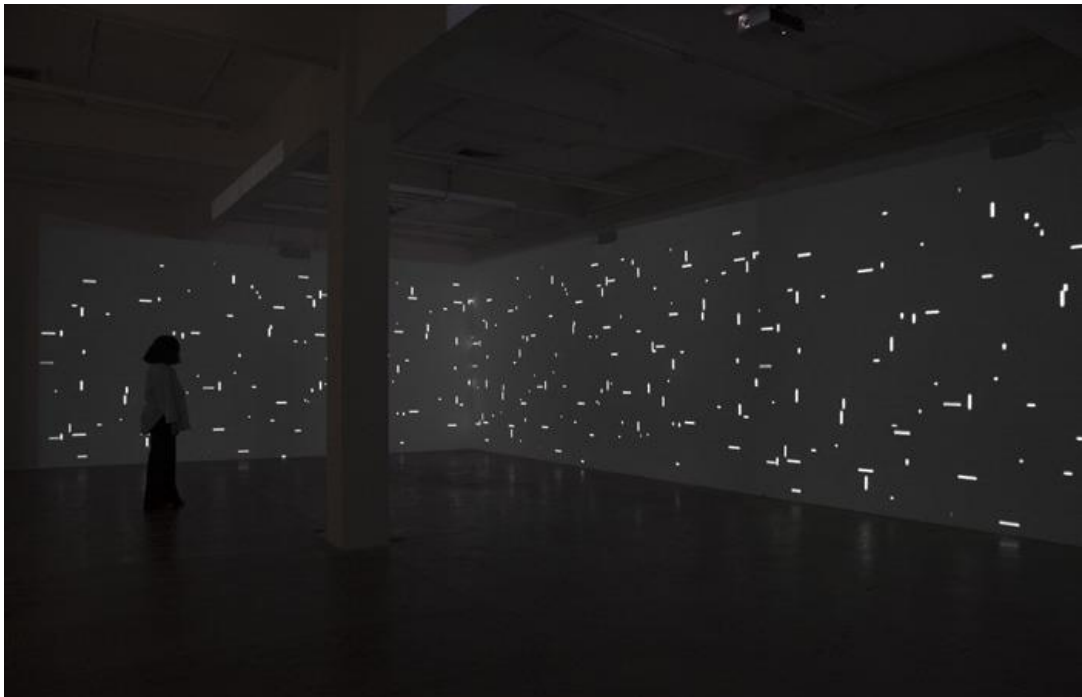


Figure 1. Magdalena Fernandez, *2ipm009*, 2009, series *Pinturas Móviles/Mobile Paintings*;
 Videoinstallation, digital animation, loop, 1' 56'';
 Digital animation: Marcelo D'Orazio;
 Rain sound effects: corporeal percussions, courtesy by the vocal group Perpetuum Jazzile;
 Installation view from "Objetos Movientes: Estructuras";
 Periférico Caracas/ Arte Contemporáneo;
 Caracas, Venezuela, 2011

One of the most emblematic works by Fernandez is the mobile painting *2ipm009*, 2009, a large-scale installation comprising a multiplicity of registers that encompass pictorial and digital animation techniques with sonorous effects and lighting patterns in a video projected in a darkened room [Fig.1]. Not only because of the ambitious scale of the installation format, but the mobile painting *2ipm009* is also an eloquent example for thinking about the potential and the potency of a digitally informed style of geometric abstraction. This is because the artwork is conceived as an event that plays between the specificity of particular environments, be they understood as physical spaces or cultural contexts, and the universal meaning

suggested by the style of abstract art. This is demonstrated by the resonance that Fernandez's mobile painting *2iPM009* has had internationally, as documented by the numerous exhibitions and contexts in which the work was presented. Examples of such as include the show *Poetics of Water* for the 10th International Biennial of Cuenca, 2009 (Cárdenas 2009), the exhibition *Complete Concrete*, at Haus Konstruktiv, in Zurich in 2010 (Von Rotenhan 2010), the show *Objetos movientes: Estructuras Periférico Caracas/Arte Contemporáneo*, Caracas, 2011 (Zapata, et al. 2011) the site-specific solo-show *Rain: Magdalena Fernández at the Houston Cistern*, Buffalo Bayou Park Cistern in Houston, coinciding with the exhibition at Frost Museum, Florida International University, 2011 (Herzberg, Brodsky 2012), the exhibition *Contingent Beauty Contemporary Art from Latin America*, The Museum of Fine Arts, Houston (Rivero 2015; Rangel, 2015), and culminating with the show *Rain: Magdalena Fernandez at the Houston Cistern in Houston*, 2016-2017, which posed one of the most challenging and spiritual environments for display, according to Fernandez (Fernandez and Buoso 2018).

From a genealogical viewpoint, with *2iPM009*, Fernandez gives homage to Piet Mondrian's theory of geometric abstraction, referencing his early written work *Church at Damburg*, 1914, and his later pictorial work *Composition n.10 – Pier and Ocean*, 1915. Both works epitomize the artist's theorization of abstract composition by drawing an analogy between musical rhythm and pictorial composition through the black and white marks of horizontal and vertical lines onto a pictorial plane. Yet, in *2iPM009*, Fernandez interprets Mondrian's neoplasticism through both a reductionist and a structuralist method of investigation by implementing motion through the video-animation of a geometric surface flickering with the crossing of vertical and horizontal lines through sounds and lights effects, given in a video progression and repeated in a loop. As the basis of her experimenting and expanding within the parameters of geometric abstraction through digital media, Fernandez introduces a video-animation technique which synchronizes sonorous effects by the vocal group Perpetuum Jazzile, with the flickering of light's effects amplifying the potency of the pictorial plane through the designing of an animated surface. The artist further expands this conscious yet physical experience through video-installation, as if configuring an immersive landscape where horizontal and vertical lines appear, disappear, and overlap, sonorously and visually evoking the event of a rainy storm in a virtual field.

From an ecological perspective, *2iPM009* suggests an immersion into a natural yet simultaneously virtual environment, visualizing a rainstorm appearing in a dark starry night. Here, primary elements like light and the sound of rain are essential to the artist's reductive and rigorous view since Fernandez chooses to explore their inherent qualities – energy and motion – beyond physical forms. This suggests a formal analogy that makes them pure affective forms and their unity functions a means for reflection. The experience of this work is well described by the art-historian and curator, Julia P. Herzberg who, in the essay *Decomposing – Recomposing: Concepts, Processes, and Sources*, 2011, reports from the 10th Cuenca Biennial, 2009. Herzberg states:

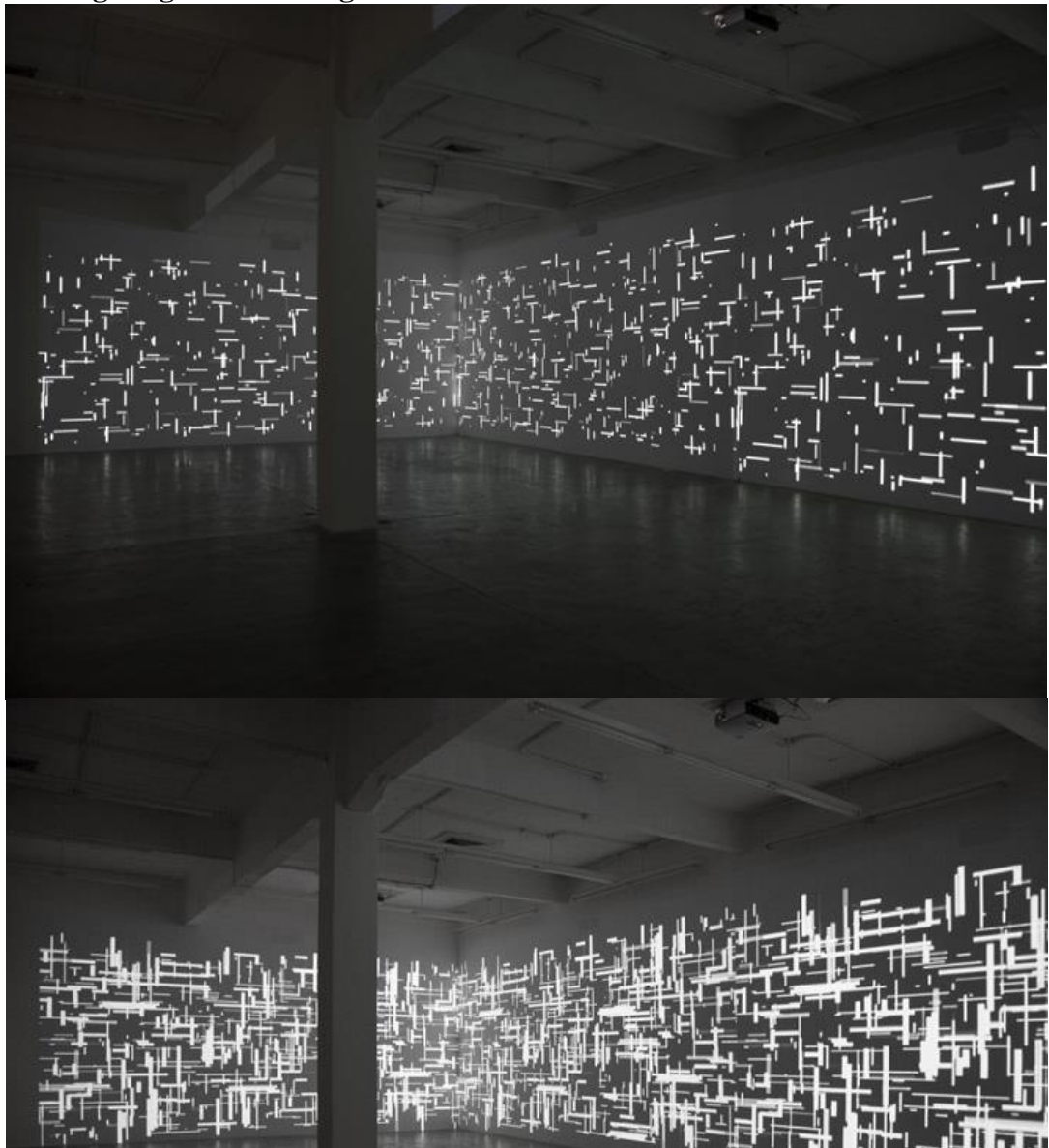
2iPM009, a video one minute and fifty-six seconds (on a loop), begins with barely audible sounds of light rain and the appearance of barely visible tiny dots. In perfectly measured timing, the dots begin to appear in greater quantity and with greater frequency, in effect evoking, however momentarily, a twinkling starry night... Progressively these lines increase in size, becoming longer and wider, moving in horizontal and vertical directions across the screen, creating a cascade of intersecting white lights. It is the sound of the rain that determines the velocity of movement, and as the sound becomes incrementally louder, it effects a virtual downpour. Suddenly a crash of thunder causes the lines to reach their maximum density... The video ends when the sound of pattering rain and the tiny moving dots disappear. (Herzberg 2011)

Drawing from Herzberg's detailed description of *2iPM009*, it is evident how Fernandez introduces her ecological vision to geometric abstraction by suggesting her essentialist view of an event: the visualization of sound of raindrops crossing lines of a visible light staged onto the background of a nocturnal nightscape. Whilst quoting Mondrian's interest in spirituality and abstract geometry, Fernandez proposes a form of rigorous reductionism that focuses on the configuration of an event whose effects expand and resonate within the frameworks of immersion.

Given these features, this paper further examines how these aspects are made explicit by Fernandez's integration of digital tools. As the art-critic and curator María Luz Cárdenas suggests, with *2iPM009*, Fernandez proposes a new direction for composition through linear structures and chromatic rhythms that move from the surface to the environment with an infinite multiplicity of registers (Cárdenas 2009). This position is also reiterated by critic and curator Gabriela Rangel, who

rigorously examines the digital tools employed by the artist, focusing on how software programs – algorithms and animations – make the artwork a quasi-operatic performance that plays between geometry and alphanumeric codes, mathematics, and mechanical possibilities, in which everything is quantized and multiply through the concept of interface (Rangel 2015). In line with Cárdenas's and Rangel's readings, this paper next proposes an in-depth analysis of Fernandez's turning the modernist pictorial register into a digital grammar of geometric abstraction.

4. A digital grammar for geometric abstraction



Figures 2-3. Magdalena Fernandez, *2iPM009*, 2009, series *Pinturas Móviles/Mobile Paintings* videoinstallation, digital animation, loop, 1' 56";
 digital animation: Marcelo D'Orazio;
 rain sound effects: corporeal percussions, courtesy by the vocal group Perpetuum Jazzile;
 installation view from 'Objetos Movientes: Estructuras';
 Periférico Caracas/ Arte Contemporáneo;
 Caracas, Venezuela, 2011.

In *2iPM009*, Fernandez revisits Piet Mondrian's theory of Plasticism, as posited in the essay *Natural Reality and Abstract Reality*, 1929-20, 1968. Plasticism here, is a form of non-representational and non-objective art supported by a method of pictorial composition that searches for non-illusionistic expressions derived from forms and colors on the surface of the canvas through the conventions of space and forms. Mondrian states:

[...] New plasticism is pure painting: the means of expression still are form and color, though these are completely interiorized; the straight line and flat color remain purely pictorial means of expression. Although each art uses its own means of expression, all of them as a result of the progressive cultivation of the mind, tend to represent balanced relations with ever greater exactness. The balanced relation is the purest representation of universality, of the harmony and unity which are inherent characteristics of the mind. (Mondrian 1968)

Drawing from the principles of Neoplastic art – space, composition, equilibrium, rhythm, lines, and color – with *2iPM009*, Fernandez posits a grammar for the language of geometric abstraction that challenges the pictorial register into a multimedia language [Figs.2-3]. To justify this position and for the purposes of contextualization, it may be useful here to cite the work of the early pioneer of digital art and 3D animation, Michael Noll, who in 1964, presented the experimental piece *Computer Composition with Lines*, which reproduced one of the most emblematic Mondrian's works, the abstract painting *Composition with Lines*, 1917, as a computational image. In *Human or Machine: A Subjective Comparison of Piet Mondrian's "Composition with Lines" (1917) and a Computer-generated Picture*, 1966, Noll firstly observes how Mondrian's abstract painting makes specific use of geometry by theorizing the marking of black and white vertical and horizontal lines as a synonymous of the masculinity and femininity, together epitomizing a symbolic synthesis of the universal. But further, his study aimed to demonstrate that the plastic effects of Mondrian's painting are not simply scattered forces randomly painted onto the surface. According to Noll, Mondrian's composition was instead determined by a methodic planning and studies on proper relationships, all subject to a predetermined scheme or program (Noll 1966, 2). Drawing from these observations, in his experimental piece, Noll states that whilst any picture can be transformed numerically – e.g., segmented or not segmented lines and dots – numerical data cannot be inversely transformed into a

representation and in this sense, they are the highest and purest form of synthesis (Noll 1966, 3). Thus, in examining Mondrian's plasticism from a mathematical viewpoint, Noll posits an interesting, yet far-sighted question on the relationship between human, mathematics and technology. Here, his experimental piece *Composition with Lines* resonates as a meaningful antecedent of Fernandez's interest in implementing animation and digital techniques in painting, both because of historical advancements and of rigorous and methodic experimentation.

One of the fundamental features of Fernandez's work is the introduction of a spatial investigation derived from Mondrian's reflections on space in abstract painting. This idea of space supersedes conventional geometry – the measuring of length, height, depth – to shape a fourth dimensional view given as a form of plastic expression. Mondrian states:

This aspiration has been ascribed to our stronger awareness of the fourth dimension, a conception that actually does come to the fore in recent art as partial or complete destruction of three-dimensional naturalistic expression and reconstruction of a new plastic expression, less limited in its vision. (Mondrian cited in Henderson 2020)

According to Mondrian, the “plastic dimension” of abstract painting is achieved through a process of destruction and construction of space in ways that set the formation of an expressive level of engagement with the pictorial plane. Quoting Mondrian's neoplastic theory of space in painting, Fernandez, in *2ipm009*, experiments with and extends the parameters of such a plastic investigation by rethinking the notion of the pictorial plane through video and installation. This allows her to explore the potential of geometric abstraction in the virtual space of a surface-screen which she further structures in relation to the context of the work's emplacement. In wider context, this choice draws from the artist's spatial practices and design during the 1980-90s, when she formulated her unique spatial modular methodology which aimed to explore the possibilities of space in relation to an existing environment.⁵ However, in the case of *2ipm009*, by further introducing digital animation techniques through the format of a video-installation, Fernandez

⁵ For further references, please see AG Fronzoni's commentary on the occasion of *Latin-American Artists of the Twentieth Century*, exhibition held at the Museum of Modern Art, New York, 1993 (Fronzoni 1993).

answers the modernist question of realistic expression by configuring a fifth and a sixth spatial dimensions which implement a temporal condition in video and explore the dynamics between the artwork and the context of exhibit. Drawing from previous observations, these two features correspond to Pinaridi's proposition that in contemporary art, the work of art is itself an event presented in the space of the common. Further support for this argument is offered by the literary critic Katherine Hayles in the chapter *The Time of Digital Poetry: From Object to Event*, 2006, which, from a literary poststructuralist viewpoint, the author examines how the support of digital forms has modified the parameters of producing and experiencing poetic language, suggesting a new space-time dimensionality. Hayles observes how, in digital media, to speak about poetry as an event means – regardless of its contents – to make a difference that produces a difference. In other words, Hayles states that digital dispositives introduce a temporal dimension into texts, a temporal deferral that challenge the understanding and the perception of them as static objects, thus addressing a question concerning time and motion (Hayles 2006, 182). Digital media, Hayles adds, reorganize the critical function and the sense perceptions of texts by creating possibility-space for events to merge, appear, and disappear from “a rich matrix in which to explore the varying dynamics of freedom and constraint produced/performed by durable marks and flickering signifiers” (Hayles 2006, 6). Furthermore, the author remarks how these features become evident as intensities and surface effects which all convey a system of reflexive strategies and new aesthetic experiences (Hayles 2006, 6). Pinaridi's and Hayles's propositions are useful here to discuss how, in *2ipm009*, Fernandez's choice of integrating digital and animation mediums supports a spatial investigation which supersedes the limits of the pictorial plane in modernist term, to structure instead a virtual dimension by crossing vertical and horizontal lines that disappear onto the surface. In her work, the digital – because of algorithm and animation – is the condition that enables the configuring of an event. The flickering of signs as signifiers in a state of virtuality makes her work reverberating with intensities and surface effects in a duration and experientially emphasized by the video-installation format chosen by the artist. In this sense, in Fernandez's mobile painting, the plastic function of Mondrian's pictorial plane translates into pure energy as an agential, formative force which actualizes the image in video. By orientating and structuring this force, Fernandez extends the dimensionality of painting focusing on the

visualization of an event in time: the occurrence of a rainstorm seen as a pure action through forms of digital geometric abstraction given in a state of virtuality. According to multimedia theorist and critic Philippe Quéau in the 1995 essay *Virtual Thought*, the virtual, as a paradigm of postmodernity, does not belong merely to the realm of the visual but is a category that rests between seeing and knowing, the visible and the intelligible (Quéau and Ridel 1995, 313). The virtual, he adds, is what enables a simulation and to experience an image not as a visual reference but as a point of view coexisting with others (Quéau and Ridel 1995, 324). Quéau's argument on the virtual resonates with the paradigm followed by Fernandez in her work, who similarly sets the condition for the virtual to solicit and amplify pictorial experience through the frames of a video-installation. In so doing, *2ipm009* plays between the background and the foreground of the surface-screen of the video and, simultaneously, deploys a structural dimension in relation to the context of exhibit by expanding the action range of the video-image.

A second important aspect of Fernandez's approach to geometric abstraction is her rethinking of the traditional canons of pictorial abstract composition and particularly the neoplastic notions of "equilibrium" and "rhythm." Whilst according to Mondrian, abstract composition must pursue a formal balance between plastic elements and surfaces effects in a sense of geometry, abstraction, unity, harmony, and stillness (Mondrian 1968), in *2ipm009*, Fernandez frees the modernist notion of composition from pictorial and formalist aesthetic preoccupations. She displaces the traditional representation of the pictorial field to draw a geometrical field of horizontal and vertical lines that, all in all, sits within a darkened, immersive installation environment. Thanks to algorithm and animation technologies, the artist investigates the potentiality of abstract geometry beyond the limits of the pictorial field, experimenting with digitally informed video and video installation formats. From a critical viewpoint, in so doing, Fernandez shifts and deconstructs the traditional schematism of Euclidean geometry and turns geometric investigation into an inquiry into the inherent, structural, and functional aspects of abstract configuration as a way of exploring the productive and relational functions of this language. Through digital technologies, the artist subverts the subjective viewpoint of formalist composition and addresses an ecological and ethical perspective which is remarked by her choice of using water and light as primary elements. This results in a heterogeneous system of abstract geometrical configuration concerning energy

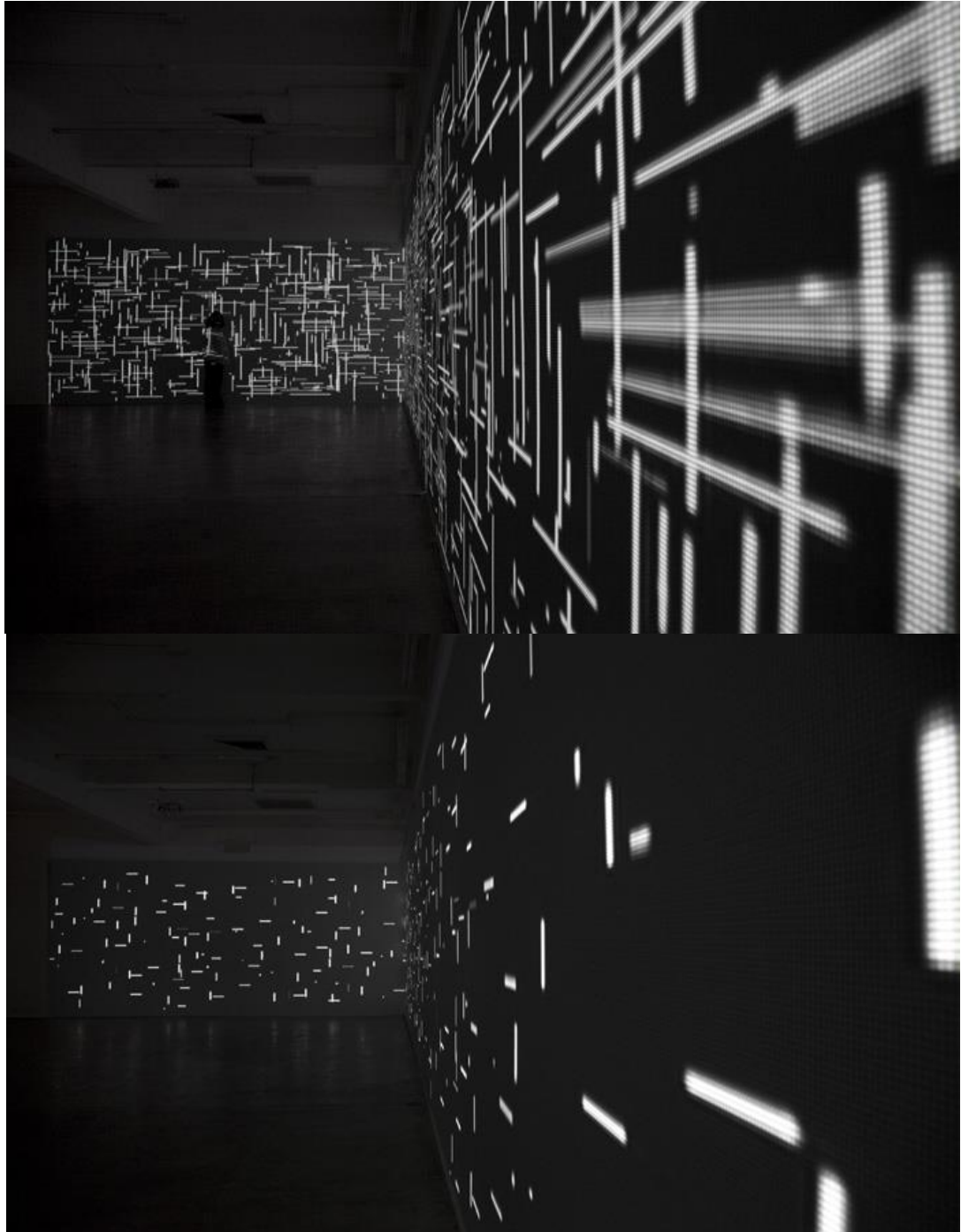
and reverberations. Further, she structures the installation between a synthetic operation achieved through the synchronization of sound effects and lighting design patterns, and the articulation of a multiplicity of registers that make geometric abstraction grounded into an experience and an environment. In her work, time and motion support what Fernandez defines as ‘an unstable equilibrium’ (Fernandez and Buoso 2008). The structural condition of her geometric investigation frees her video from any predetermined schematism and opens up to instability, motion, chance, and a new level of engagement with artworks. As noted by Rangel, in *2ipm009*, Fernandez proposes “a quasi-operatic performance... where everything is quantized and multiply” (Rangel 2015). These digital applications undo the canons of modernist abstract composition in ways that give structure to the merging of an event in time, as if designing an aural experience which acts by means of sound and light effects where chaos and chance collide in a discourse about multiplicity. In this sense, through algorithmic and animation techniques, Fernandez reinterprets the modernist ideal of pure forms of composition and replaces them with a system of pure events, actions, and relations, all derived from interpretations of natural laws and genealogical encounters in geometrical and abstract terms. Drawing from Hayles’s literary analysis in her 2008 *Electronic Literature*, it could be argued that in *2ipm009*, Fernandez replaces formalist composition with strategies of “computation” that comprise sound effects and digital animations. This, she argues, leads to forms of a “digital textuality” where conceptual meanings are replaced by the dynamics of networked and programmable media (Hayles 2008, 84-85). Within the framework of the poststructuralist theory of grammatology, Hayles reads the advent of computation as a condition that challenges the very notion of the work of art. Pinaridi, on the other hand, does not understand this as a static object, but as an event produced and acted through forms of expressivity and reflexivity. In Fernandez’s work, computation replaces the neoplastic notion of composition as a reaction against chaos, implying that the video is an active dispositive in the expanded field of the installation, and supporting a politics of space and motion, lending name to Fernandez’s choice of the series’ title – *Mobile Painting*.

In *2iPM009*, spatial design and computation support the third fundamental feature of Fernandez’s investigation: the artist’s interpretation of “abstract geometry,” which she articulates through the synchronization of horizontal lines

crossing vertically lines in the virtual dimension of the video-installation. In *The New Plastic in Painting*, 1917, Mondrian posits theoretical understandings of horizontal and vertical figures, defining them as both an ideal and as contrasting geometric representation of a cosmic duality between the visible and the invisible; a form of universal harmony believed existing under the nature's surface (Mondrian cited in Henderson 2020). Through algorithms and animations, in *2iPM009*, Fernandez chooses to connote these geometric signs with sonorous and visual effects by employing sound and light as primary elements. This strategy, whilst soliciting two different sensorial perceptions, is useful to visualize an event in time and make computation into the highest form of synthesis concerned with the universal translated in terms of geometry and the virtual. Yet the synthetic function of computation, here purely given by means of calculation and geometrical drawing, does not define a fixed category or a schema but instead posits a language for both numerical and intuitive representation, describing both a model of cognition and of affective perception. In fact, *2iPM009* resonates with the sound of raindrops reverberating from the black screen of the video and appearing through lines of light as if they are designing a nocturnal landscape characterized by a dramatic contrast between short and long waves and high and lower frequencies perceived as intensities and surface-effects crossing the surface-screen of the video. It must be here observed how the artist uses these sources to build an analogy – an analogy that serves both as a rationale for the algorithm that regulates her computation and, more extensively, as a form of dematerialization of the work of art itself. In other words, with the aim of deconstructing formalist composition through computation, Fernandez implements forces such as sound, water, and light, as pure energy related to space-time and the universal. In *2iPM009*, whilst the rain sound effects by the vocal group Perpetuum Jazzile evoke a deep ecological experience, the lines of light are meant to suggest a form of recollection with the space-time continuum.⁶ In so doing, Fernandez's analogy echoes Mondrian's statement: "Life and art must therefore be radiation. The ray is the symbol of radiation (the inwards). Although we cannot see the inner radiation or the ray, it is imagined in pure abstract thought (Mondrian cited in Henderson 2020)." Through

⁶ Although not fully contemplated, this analysis here suggests further readings on Fernandez's theorization of geometry in parallel to scientific studies on differential geometry (Riemann 1854), theories of Relativity (Einstein 1905) and the philosophical debate upon the images of the fold and the virtual (Deleuze 1988).

sound effects and digital animation, Fernandez allows freedom and the sensuous to enter the language of geometric abstraction to address a differential geometrical order which lies in a state of becoming, forces, intensities, and patterns.



Figures. 4-5. Magdalena Fernandez, *2iPM009*, 2009, serie *Pinturas Móviles/Mobile Paintings* videoinstallation, loop, 1'56'';
digital animation: Marcelo D'Orazio;
rain sound effects: corporeal percussions, courtesy by the vocal group Perpetuum Jazzile;
installation view Frost Museum, Florida International University, Miami, 2011.

Fourthly, in *2iPM009*, Fernandez draws from Mondrian's neoplastic theory of colors, which privileges the use of primary colors juxtaposed by contrasting

dualisms as a means of expression [Figs.4-5]. In Fernandez's work, the choice of adopting non-colors such as a "black and white" is justified by the modernist principle that this register reflects the pure synthesis of all possible relations. Further, Fernandez emphasizes an analogy between digital strategies, sound and light effects, and her use of a black and white register to support an idea of geometric abstraction in action. The notion of agency was already founded in Mondrian's theory of primary colors in paintings in his questioning of the visible and the invisible and differently from naturalistic painting. This feature is further elaborated upon by Fernandez in *2iPM009*, where her digital grammar of geometric abstraction coherently supports the essentialist choice of privileging a black and white register as a means of action within a system of possible relations. Perceptually, by connotating the black and white's register with different sensorial perceptions – a dramatic contrast between sound and the visible light – the video solicits different levels of engagement with the artwork in ways that lead to a conscious experience. This forms a synthesis that is not limited to the individual viewpoint of subjectivity but is a way of renegotiating nature-culture's relationships by being immersed in the virtual dimension of the video-installation.

Ultimately, Fernandez's grammar supports the digitalization of geometric inscriptions, which are not only pictorial as in Mondrian's work, but are a derivation of graphics and customized design. As discussed, this approach derives from the artist's practicing in graphic design in the 1980s. Additionally, as Fernandez often cites (Fernandez and Buoso 2008), her practice resonates with contributions from the German-Venezuelan artist Gego. Gego, one of the most recognized female artists to approach the language of geometric abstraction in the 1960-70s, was known for introducing geometric and kinetic movements through graphic signs, as seen in her series *Drawings without Papers*, 1980-1990, at the expense of formal expedients. With *2iPM009*, Fernandez makes explicit this lineage by rethinking the language of geometric abstraction as a digital text comprising pictorial, graphic, and computation. To support this proposition, we can refer to Pinaridi's analysis on the difficult evolution of modernism in contemporary arts. When theorizing the contemporary notion of the work of art as an event, Pinaridi ultimately dwells on the implications of such configuration in relation to a question concerning signifying practices. Specifically, the author states that to understand the work of art as an event means to reject binary opposition (traditionally the regime of the signifier –

the signified) and consider an “art-event” as enabling an interplay and a process of meaning-making (Pinardi 2019). In line with poststructuralist and postmodern linguistic theories, Pinardi suggests that to question signifying practices in art means to recognize the interplay both of inscriptions and of enunciation (sound for example in the case of Fernandez’s work), all entailed in a process of discursive formations. Aligned with Pinardi’s position is Hayles’s analysis of the different levels of signification of digital texts, as discussed in the chapter *The Feature of Literature: Prints Novels and the Mark of the Digital*, part of *Electronic Literature. New Horizons for the Literary*, 2007. In this text, she argues that in contemporary literature, print and electronic textuality deeply interpenetrate one another in a performative manner to constitute a complex dynamic, allowing print to take on new capabilities, aesthetics, and strategies (Hayles 2007, 159). To explain how these different registers operate in a digital text, Hayles proposes an ecology of digital texts. She examines the dynamic interrelations that exist between print and digital writings, and how they act upon each other in terms of competition, cooperation, mimicry, and symbiosis. These effects can be observed not in a physical sense, but in the ‘surface’ of digital texts (Hayles 2007, 159). Quoting the literary critic John Cayley, Hayles states:

These dynamic interrelations can be observed in the complex surfaces emerging in contemporary digital and print literature. As John Cayley remarks, “The surface of writing is and always has been complex. It is a liminal symbolically interpenetrated membrane, a fractal coast- or borderline, a chaotic and complex structure with depth and history. (Hayles 2007, 160)

According to Hayles, digital literature shifts the traditional attention from printed support towards the production of a textual surface that does not function as an object, but as a supplement extraneous yet necessary to the text, as it organizes both inscriptions and sense perceptions in a dynamic interplay. Here, Hayles shifts the binary opposition between the signifier and the signified, in support of free articulations of codes and mechanisms, littered by the marking of digital imprints. In this context, Hayles’s observations on digital literature apply to Fernandez’s interest in rethinking the language of geometric abstraction in terms of computation. Similar to the advent of digital texts, according to Fernandez, painting is neither

defined by traditional pictorial supports nor by reason of its objectness. Instead, the digital work of art (video-installation, in this specific case) is both a supplement (it is functional as a dispositive, a frame) and a surface (it is a text for both visual and written representation). These intertwining features all contribute to the actualization of an event and an experience. To understand this dynamic interplay means to justify the proposition that beyond text and language in the semantic sense, Fernandez contributes to the formulation of a grammar of geometric abstraction through digital art by focusing on the relationship between sign and space-time. This is expressed through the coding and decoding of algorithmic sequences actualizing geometrical lines and integrating graphic, design and digital texts, all evoked by the cryptic titles of her work. Succinctly, this is not simply a way to move from formalism to information in a postmodern sense. Rather, Fernandez uses digital forms of inscription through a hybrid approach that combines visual, sound and written texts to design a hyper-text. Through the marks of a digital geometric abstraction, the work *2iPM009* reveals itself as an interface; a membrane that acts in-between energy and materialization, the virtual and the actual, the cognitive and the sensuous. However, through deeper analysis, this interplay is not merely a dynamic movement. To paraphrase the words of the media theorist Brandon Hookway, it is agency. In his essay *Interface*, 2014, Hookway examines the model of the “interface” and describes it as a facing, a membrane defined not by separation but by the quality of actively facing that which it encounters (Hookway 2014, 11). According to Hookway, agency is and is expressed as a dynamic force, a behavior, and a cognitive process. It is a principle for constructing power’s relations and control (Hookway 2014, 11). Hookway’s argument here contributes to extend Hayles’s theory of digital texts as complex surfaces by suggesting that these should not be understood as neutral media, but as possibilities of agency and governance. In this analysis, these theoretical references add that between the video-screen and the virtual environment of Fernandez’s installation, *2iPM009* sits as an interface and involves forms of agency between the realms of logos and the sensuous, abstraction and nature, and vice versa.

Widely, these features demonstrate how Fernandez’s use of digital practices makes painting different from the neoplastic and non-objective meaning of Mondrian’s painting. Her video-installation configures a new level of engagement with the artwork, as an affective movement that recalls both a movement of

interiority arising from the relation between aural, visual, and written marks, as well as the experience immersion in a natural state of heterogeneity and multiplicity. Through agency, the virtual features of Fernandez's video-installation transcend individuality to reconnect with the universal in a state of existence and coexistence. As the art-historian and media theorist, Oliver Grau, observes in his essay *Virtual Art. From Illusion to Immersion*, 2003, virtual environments amplify sensory perception as a way of being in the images, almost as if being completely enveloped and floating on watery elements (Grau 2003, 198). Grau's observations apply to the experience of Fernandez's mobile painting, where immersion subverts any hierarchical order of composition testifying the absence of a center and functioning as a form of reflexivity and of enunciation. While affecting the viewer's conscious experience in a spiritual, cognitive, sensory and holistic manner, Fernandez's formulation of an abstract digital textuality puts into play dynamics that reconfigure the relations between ecology, humans, and technology, or in different words, between digital codes, geometry, and abstract language.

5. The ethos of geometric abstraction in multimedia language

Fernandez's mobile painting *2ipm009* is an emblematic example for thinking about geometric abstraction in digital terms because, in her work, the artist extends the canons of formal abstract pictorial composition by experimenting with video and video-installation formats. By addressing a digital grammar for the language of geometric abstraction, this analysis has examined the multiplicity of register – spatial, computational, sonorous, and lighting design along with the use of graphic and digital media – that merge in *2ipm009* in ways that contribute to an understanding of the work of art as an event and an experience in a constant renegotiation with environments and contexts. As discussed in this paper, *2ipm009* extends the parameters of pictorial abstract composition through the lens of an interface. In this work, in particular, the interface results as a surface screen that acts between the virtual dimension of the video and the actual field of the immersive installation, supporting an understanding of intertextuality as an 'intermediality'.⁷ This is a communication strategy that opposes formalisms to emphasize, as posited

⁷ Among major contributions in the field of intermedia studies, we refer to: Bennett (2007) and Petersson et al. (2018).

by Fluxus artist Dick Higgins, “the dialectic between the media” in terms of immediacy, communication, and the power of interrelations (Higgins 1967). As a form of meta-art, the intermediary feature *2ipm009* plays between the surface-screen of the mobile painting and the projection of an experience within the context of exhibit, adding new values to the politics of a work of art.

Fernandez posits the ethos of *2ipm009* by suggesting that the true spirit of geometric abstraction does not lie in the idealistic vision of Mondrian’s painting, but in a feeling and in an affective disposition that allows one to reconnect with intersubjective experiences between genealogies, nature, ecology, and technology. From the positioning of a female artist, Fernandez supersedes the subjective and critical point of view of geometric abstraction, opening up this language to a system of relations derived by the dynamic interplay of multiple registers. In so doing, the artist configures – in Pinardi’s words – an event that modifies perception, environment, and contexts. In Hayles’s words, the specificity of digital media involved in *2ipm009* suggests that geometric abstraction is not merely the fashioning of a spiritual and intelligible way of thinking but is instead a concrete act of making; a production that involves digitalization, manipulation, proprioceptive projection, movement, actions, and other physical senses (Hayles 2003, 183). For Fernandez, geometric abstraction is, in this sense, an act of making through the digital, a rigorous method for drawing subject-object’s relations in space and time through forms of synthesis and recollection. With *2ipm009*, Fernandez displaces the idealist sense of modernist spirituality and grounds this language onto the substrate of nature. This displacement – to use Rosi Braidotti’s posthuman theory (Braidotti 2006) – concerns a radical positioning that makes the universal spirit of geometric abstraction into an ethical affirmation.

The ethos of *2ipm009* “speaks” of a renegotiation between genealogy and nature-culture’s relationships in terms of agency and legacy. Following this orientation, Fernandez makes explicit the statement that the language of geometric abstraction is at first an event and an action - a form of enactment which articulates through the interplay of multiple registers and multiple experiences. By experimenting with and extending the parameters of abstract painting through a digital textuality and a sensuous, immersive experience, Fernandez sets the conditions for thinking about geometric abstraction as a multimedia language that “speaks” to a multiplicity of audiences.

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