

Contemporary Art and Virtual Reality: New Conditions of Viewership

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Abstract

This article aims to respond to the lack of studies on the relationships between contemporary visual arts and VR, focusing on the role of “storytelling” and identifying what distinguishes VR art projects from other contemporary uses of VR, namely the criticism that they make of the VR medium itself. In the last five years, VR has developed a new language based on a specific visual grammar that has allowed for new forms of narration to arise. Visual artists have been attracted to VR in search of new modes of production and have exposed the negative impact of technology on our perception of reality, uncovering new mediated ways of seeing and distanced interaction with the world around us. The first part of the article will be dedicated to discussing Canadian artist Jon Rafman’s *View of Pariser Platz* (2016) and American artist Jordan Wolfson’s *Real violence* (2017), two of the first Oculus Rift-based art installations that developed a metalinguistic commentary on how VR, although promising immersion, produces, in fact, alienation, homogenization, brutalization and the loss of empathy. The article will continue with a discussion on the recent rise of tech companies that aim at producing contemporary artworks based on VR technology: Acute Art (London), Khora Contemporary (Copenhagen), and VIVE Arts (Taiwan). This is a new and expanding field that is changing the ontology of artmaking and redefining the artist’s role, mainly in light of the cooperation with technicians and programmers.

Keywords: Contemporary Art; Virtual Reality; Visual Culture; Media; Dystopia; Empathy.

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1 Promises of Immersion: The Evolution of VR in Contemporary Art

Since the introduction of the Oculus Rift in 2016, VR has developed a new language based on a specific visual grammar, allowing new forms of narration to arise. Visual artists too have been attracted to VR but, unlike most applications of VR in other fields, their goal is frequently that of exposing the negative impact of technology on our perception of reality, as uncovering the new mediated ways of seeing and distanced interaction with the world around us. By adopting the tools of contemporary art history, this article aims to respond to the lack of scholarship on the relation between contemporary visual arts and VR and will be based on a phenomenological analysis of artworks, as well as the investigative tactics of media and visual studies concerning the growing impact of audiovisual technologies. To identify the specificity of VR art projects in comparison with other contemporary uses of VR, the article will focus on the role of “storytelling,” highlighting how contemporary artists are less interested in exploring VR’s illusionistic and immersive dynamics than deconstructing the VR medium itself.

The first part of the article will be dedicated to discussing Canadian artist Jon Rafman’s *View of Pariser Platz* (2016) and American artist Jordan Wolfson’s *Real violence* (2017), two of the first Oculus Rift-based art installations that developed a metalinguistic commentary on how VR, although promising immersion, produces, in fact, alienation, homogenization, brutalization and the loss of empathy. The article will continue with a discussion on the recent rise of tech companies that aim at producing contemporary artworks based on VR technology: Acute Art (London), Khora Contemporary (Copenhagen), and VIVE Arts (Taiwan). The artists discussed have perfected a characteristic type of VR storytelling that is based on micro-narratives, not so much a linear story that develops over time but an intense, sensational, and emotional condition for the viewer. While reconfiguring the viewer’s experience in the exhibition space, these VR art projects also developed metalinguistic reflections on the very mechanisms of VR, reclaiming the McLuhanesque dictum that “the medium is the message” (McLuhan, 1966: 5).

Every time a new medium becomes available, artists adopt it enthusiastically, fascinated by its newness and motivated by the desire to establish more direct relationships with their audience, or to reach new ones. This is what happened with film, the radio, the telephone, video technologies, the personal computer, and the Internet. Usually, these processes were triggered by the commercialization of specific devices, a key example being the Sony Portapak camera which was released in the late 1960s and encouraged the birth of video art. Virtual Reality had a similar impact: not only were visual artists eager to experiment with it, some of them even contributed to the evolution of its technology. From 1977 to 1984 David Em, pioneer artist in American computer imaging, worked at NASA’s Jet Propulsion Laboratory Graphics Lab and created the first navigable virtual worlds, interestingly reminiscent of the landscapes painted by Surrealist artists such as Salvador Dalí and Yves Tanguy.

American computer scientist, artist, and writer Jaron Lanier had a pivotal role in the advancement and popularization of VR, notably through the development of wearable devices such as the DataGlove, the EyePhone, and the DataSuit produced by VPL Research, a company he founded in 1984. Lanier considered VR an empowering technology that allowed for new forms of self-liberation and community-bonding, in line with the experiences that had emerged in American counterculture during the 1960s such as the Whole Earth Catalog, USCO, and E.A.T., and with contemporary computer idealists such as Apple leader Steve Jobs. In a 1989 interview, Lanier declared: “There are a few special things about Virtual Reality to keep in mind, the things that make it important. One is that it’s a reality in which anything can be possible, provided it’s part of the external world. It’s a world without limitation, a world as unlimited as dreams. It’s also a world that’s shared, like the physical world is, no more, no less” (Lanier, 1989: 110).

As VR headsets started to circulate in the early 1990s in the videogame market (e.g., the Sega VR headset was commercialized in 1991) and be fantasized about in mainstream sci-fi cinema (e.g., *The Lawnmower Man*, 1992), more and more visual artists were attracted by the immersive potential of this technology. British computer artist William Latham explored the psychedelic dimension of VR, plunging viewers into computational ecosystems populated by organic life forms generated by algorithms (his is also a pioneering case of A.I. art), reminiscent of sea anemones, mushrooms, fossils, and viruses. He was influenced by fractals and Froebel’s language of shapes, as well as by evolutionary theories. In the 1980s, together with programmer Stephen Todd,

Latham established the Mutator VR team, which is still active today. Their last installation, produced by VIVE Arts, was featured in the 2020 exhibition *Neurons: Simulated Intelligence* at Centre Pompidou, Paris.

Another key figure in the evolution of VR in contemporary art is Australian artist Jeffrey Shaw. Shaw emerged in the late 1960s in association with expanded cinema and radical architecture practices and approached computer technology in the 1980s. His *Virtual Sculpture* (1981) was a pioneering augmented reality installation: viewers could tilt a monitor implemented with a Fresnel lens and a semitransparent mirror and visualize computer-generated figures floating in the surrounding space. Shaw's most groundbreaking project with VR — this one too with no headset — is *Legible City* (1989–1991), an interactive installation that allowed visitors to navigate a computer-generated cityscape by riding a stationary bicycle in front of a screen. Although based on the maps of real cities (Manhattan, Amsterdam, Karlsruhe), 3D words and phrases took the place of buildings. Concurrently to exploring immersion, the work exposes the major role played by computer imaging in eliciting the epochal shift from a text-based to an image-based culture, what W.J.T. Mitchell famously termed “the pictorial turn” (Mitchell, 1994).

Scholars have identified various origins for VR, the most “recent” ones being 19th-century pre-cinema optical devices, such as the cyclorama, the stereoscope, and the kinoscope. Some situated the earliest examples of VR in Renaissance perspective and Baroque illusionism. In his seminal book on the topic, *Virtual Art: From Illusion to Immersion*, German art historian and media scholar Oliver Grau goes back to the frescoes found in Roman houses (Grau, 2003). Nevertheless, a major shift from ancient forms of illusionism to current VR applications has been enacted by the evolution of computer technologies, notably the advent of wearable devices that offer users sensory immersion and the illusory capacity to interact with a virtual environment. Therefore, it would be more accurate to identify the roots of VR in American filmmaker and inventor Morton Heiling's *Sensorama* (1962) — the first machine to offer a proper multi-sensory immersion — and, more importantly, in Lanier's wearables of the 1980s.

Italian media scholars Francesco Casetti and Andrea Pinotti have identified three main axes of the contemporary immersive experience: unframedness, presentness, and immediateness. By “unframedness,” they are referring to the loss of the frame. The screen and the frame — crucial elements of “traditional” forms of the filmic narrative experience — seem to vanish in VR. With a 360 degrees horizon, the edges of the frame collapse allowing the user to explore the field in its entirety. “Presentness,” they suggest, “should be understood in a double sense: of the user feeling present in the environment (a condition frequently referred to through the formula ‘being there’), and of the digital objects perceived as actually present in the space-time of the user” (Casetti and Pinotti, 2020: 204). By “immediateness” they refer to the feeling of being fully absorbed in a virtual world, a feeling destined to be increased the more technologies are connected with, or become an extension of, our body.

Early experiments in the use of VR in the visual arts were conducted from the 1970s to the 1990s by artists like Em, Latham, and Shaw, and were characterized — as was also the case with other technologies — by an investigative take on the aesthetic and narrative possibilities offered by the new medium. They were galvanized as much as those who adopted VR in other fields. Interest in VR waned during the late 1990s, but starting from 2016, in coincidence with the commercialization of the Oculus Rift — and the development of user-friendly software such as Unreal Engine and Unity — a new wave of VR art projects emerged. The Oculus Rift VR system, designed by American entrepreneur Palmer Luckey in 2010, was launched in 2012 through a Kickstarter campaign and famously purchased by Facebook in 2014 for \$3 billion, thus entering the market in 2016. Its groundbreaking impact was due to the headset display's 90Hz frame rate coupled with low latency, allowing users an all-encompassing experience.

For Luckey and most of the early Oculus Rift adopters, VR was meant to intensify their gaming performance. “I've always loved games. They're windows into worlds that let us travel somewhere fantastic,” asserts Luckey. “My foray into virtual reality was driven by a desire to enhance my gaming experience; to make my rig more than just a window to these worlds, to actually let me step inside them” (Luckey, 2014). Along with the videogame industry, the past few years have seen a growing use of VR in cinema, entertainment at large, and even medicine (e.g., VR programs used in the rehabilitation of Alzheimer patients). More and more museums and archeological sites have adopted VR too, so as to offer visitors immersions into painted scenes, strolls through Greek *polises*, or terrifying encounters with dinosaurs. However, most of these VR applications are nothing more

than intensified versions of ancient forms of illusionism, and follow the logic of entertainment, the market, and pedagogy.

2 Empathy Lost: Jon Rafman's and Jordan Wolfson's VR Installations

Rafman and Wolfson, who emerged in the late 2000s, are two of the best-known contemporary artists that deal with automation, alienation, and identity crises concerning technology and the Internet. Their works often induce anxiety, and confront the audience with the dehumanizing impact of virtual life with regards to work, education, and leisure activities. Rafman's prolific output includes appropriated Internet screenshots, CGIs (static, animated, or 3D-printed), and videos made up of found footage from various sources. His work is associated with the so-called post-Internet movement and the work of peers such as Ed Atkins, Camille Henrot, Oliver Laric, and Amalia Ulman. Wolfson is known for videos and kinetic installations that tackle issues of violence, sexism, and racism. Both artists have recurrently used body surrogates such as avatars, trolls, and animatronics to explore psychoanalytical dynamics related to identity fragmentation and issues of desensitization engendered by digital technologies.

Rafman's appropriationist approach is characterized by the same lo-fi style of artists that emerged in the early 2000s such as Cory Arcangel and Ryan Trecartin. With them he shares an interest in the psychopathologies associated with virtual communities of fans and gamers, the dynamics of self-representation on social media platforms based on user-generated content, and the standardizing impact of web applications. Rafman's best-known work is *Nine Eyes of Google Street View* (2008–ongoing), a collection of screenshots from Google Street View, presenting unusual scenes caught by the cold eye of the camera mounted on top of a Google Car: prostitutes, dying animals, criminal activities and so on. Throughout the 2010s he explored the growing online presence of memes, trolls, bots, and avatars, notably through works based on the virtual world Second Life, where he placed the Kool-Aid mascot in the role of tourist guide or two women avatars performing in situations prescribed by sexual fantasies in *Dream Journal* (2016–2019).

View of Pariser Platz (2016) was a site-specific VR installation Rafman made in collaboration with Samuel Walker for the 9th Berlin Biennale, which was curated by New York-based art collective and post-Internet networkers DIS. The work was installed on the terrace of the Akademie der Künste, which faces Pariser Platz and the Brandenburg Gate. A staff member instructed single visitors to wear the Oculus Rift (only one headset was available). The VR experience started with a panoramic CGI replica of Pariser Platz from the user's point of view. All of a sudden, the atmosphere became dark and foggy, the surrounding sculptures of animals eating other animals in one bite came to life (these too were works by Rafman), the terrace's floor began to crumble, and faceless, disarticulated, seemingly foam-filled dummies started to float around, falling. The square, usually crowded with tourists, was turned into a surreal universe controlled by a superior, invisible force (Figure 1).

As the terrace collapsed, the user precipitated into an abyss, becoming just another faceless dummy among impotent lookalike bodies, beings less sentient than lifeless corpses. The desire for an immersive experience that normally stimulates users to wear a VR headset led to apprehension: a commentary on how digital technologies produce, in fact, homogeneity and insensitivity. The work overturned and exposed the illusory feeling of omnipotence that one normally encounters in user-controlled navigation systems, two examples being GPS receivers and videogames. Borrowing the codes and aesthetics of dystopian sci-fi cinema, *View of Pariser Platz* produced an experience of immersion into a reality in which one is neither the protagonist nor identified with the hero: one is just another anonymous dummy falling; an image that also, inevitably, echoed the desperate "jumpers" of the World Trade Center during the tragic events of 9/11.

The abyss was physical as much as psychological: the metaphor of a mind losing control while deluded to be in control. Rafman has explored similar dynamics in other works too, although these are not VR-based. *New Age Demanded* (2009–ongoing), for example, is a series of faceless CGI sculptural heads, deformed by an accelerated, invisible force, simulating different materials and covered with textures that recall pictorial abstractions, an example being the head that appears in the 2014 remake of the cyberpunk movie *Robocop*. Their monumental celebration of dis-identity is particularly grasping when they are 3D-printed. In the multi-screen animations *Poor Magic* (2017) and *Disasters Under the Sun* (2019), we are also confronted with faceless beings which join crowds running and smashing against walls or each other, jumping off high spots, being



Figure 1. Jon Rafman, *View of Pariser Platz*, 2016 (still). Virtual Reality Installation. Courtesy the artist, Sprüth Magers.
© Jon Rafman

squeezed through moving walls, as virtual crash test dummies are employed, or rather abused, to test how a human body can resist and survive violent impacts.

Rather than avatars, Wolfson employs Disneyesque animatronics to explore identity issues concerned with digital technologies. His most renowned work, *(Female figure)* (2014), is a life-size animatronic of a scantily clad blonde woman, reminiscent of pop singer Lady Gaga, who wears a witch mask and has signs of dirt on her body. She performs sensual but robotic dance moves in front of a mirror, to which she is attached to via a metal bar that protrudes from her stomach. She is also equipped with facial recognition software that enables her to establish visual contact with the viewers. Another animatronic by Wolfson, *Colored sculpture* (2016), is a boy with a diabolical look, reminiscent of Huckleberry Finn and the MAD magazine mascot. In an enclosed arena, the disarticulated, larger-than-life figure is suspended by heavy chains. Viewers can only walk around the perimeter and observe the cartoonish character being dragged around by the head, an arm, or a leg, as the chains are pulled and released by motorized tracks.

As an extension of his work with animatronics, Wolfson adopted VR to comment on the numbing effect of current technology. Unlike for Rafman's work, many users took off their headset before the full two-minute and twenty-five-second video came to an end in Wolfson's *Real violence* (2017). This VR installation was presented at the 78th Whitney Biennial, where it was available to ten users at a time, with a restriction on those who were under 18 years of age, who were made to stand around a counter (Figure 2). Isolated by the VR headset and noise-canceling headphones, users were shown a view of the sky, as if one was lying on the ground, and were later confronted with an act of extreme and gratuitous violence: a man in jeans and grey t-shirt, the avatar of Wolfson, beating to death a kneeling man with a red hoodie on a Manhattan sidewalk. Initially, he struck him with a baseball bat, and later, hit his body and head with stomps and kicks. The victim is seen as silent and condescending. As blood increasingly flows, the executioner finishes the man off by smashing his skull against the pavement, while life around him proceeds indifferently.

A historical work of art which exhibited a gratuitous act of violence was Chris Burden's performance *Shoot* (1971), which consisted in Burden being shot in the arm by a friend with a rifle from 5 meters. Unlike Wolfson's VR, Burden's performance was not a simulation. Besides, while Wolfson plays the role of the attacker, Burden is the victim, although one who is responsible for putting himself in such a passive role. Passivity and indifference are key elements in both works, metaphors of the sadistic position of voyeurs in which spectators/users are placed in by the media. Admittedly, Burden was concerned with the spectacularization of the Vietnam War,



Figure 2. Installation view, Jordan Wolfson, *Real violence*, 2017. Virtual reality headsets, high-definition video, color, Sound; 2:25 min. Whitney Biennial 2017, Whitney Museum of American Art, New York, 17 March – 11 June 2017. Credit: © Jordan Wolfson. Collection of the artist. Courtesy David Zwirner, New York, and Sadie Coles HQ, London. Photo: Bill Orcutt.

ongoing at that time, on television. According to American art historian Frazer Ward, a meaningful element in *Shoot* was the position of the audience, who did not intervene in a situation that might eventually have turned into a homicide, a small audience “defined by the suspension of judgment and choice. What should I do, in this situation? *Watch*” (Ward, 2001: 130).

If the act of violence is not real but a hyperrealistic CGI simulation performed by avatars, what then is the “real violence” advertised in the title of Wolfson’s work? The role of the audience, impotent but also voluntarily passive, plays a crucial aspect here too. However, while Burden was concerned with the passive telespectator, Wolfson is concerned with VR and, by extension, digital technologies and the Internet at large, or tools which delude us in thinking that we are active users. The “real violence,” then, is less the one performed than that enacted by the media, which are blamed for anesthetizing spectators, making them apathetic even in front of scenes of violence, abuse, and murder. Sherry Turkle, the author of various recent books that analyze the psychological impact of technology, suggests that we are “being silenced by our technologies — in a way, ‘cured of talking.’ These silences — often in the presence of our children — have led to a crisis of empathy that has diminished us at home, at work, and in public life” (Turkle, 2015: 66). Silent and alienated behind screens, we have lost the curiosity for self-reflection and any form of empathy, even compassion towards other human life.

Rafman’s and Wolfson’s VR installations produce a particular type of storytelling, in antithesis with most VR uses in the fields of cinema, entertainment, education, and commerce. First, the setting: we are confronted with a replica of our surroundings — the terrace on which we stand in Berlin and a Manhattan street around the Whitney Museum — but we cannot explore or interact with it. Second, the narrative: in both cases, it elicits a metalinguistic reflection on VR technology itself. Third, the characters: faceless, lifeless dummies in one case and emotionless beings that perform a scripted act of violence, seemingly as an end in itself, in the other. Both artists are not interested in offering users an immersive experience to tell them a story (as in cinema), to navigate fictional worlds (as in videogames), or to explore life in another era (as in museum guides). They employ VR to expose the very effects of VR technology, as well as the alienating and at times dehumanizing impact of the mediated experience with virtuality that it offers.

3 The Rise of VR Art Production Companies: A New Hybrid Scenario

Proof of the recent interest in the relationships between visual arts and VR is the birth and increasing activity of companies aimed at producing VR art projects. Acute Art, Khora Contemporary and VIVE Arts, all born in the past five years, have steered their assets toward immersivity, opening new avenues for the convergence of art, technology, and innovation. Collaborations between visual artists, programmers, and technicians are not new in the history of art; the 1960s were a golden age, exemplified by the activities of the aforementioned E.A.T., a cooperative of artists and engineers. However, today’s production of VR art projects indicates an unprecedented phenomenon, which is impacting the modus operandi of many visual artists and the mindset of tech field developers. What is particularly striking today is that we are not talking about one-off collaborations but of proper companies whose business is based on such relationships.

This emerging hybrid scenario immediately raises a crucial question: why would a tech company need visual artists? Vice versa, why would a visual artist need a tech company to make a work of art? Most of the visual artists doing VR projects today employ media technologies simply because they are available to them and in order to reflect on society through the same tools that are at the basis of its establishment. On the one hand, their experimental opening towards technology leads to new business applications that could potentially be developed for the market or other fields, including education and media. On the other hand, many of these artistic experiments with technology develop new critical approaches to these tools. A new hybrid type of artist emerges, one that is on one side increasingly concerned with innovation, involved in an ongoing dialogue with programmers and technicians, and on the other side brings a critical gaze, pushing the tech field to reconsider its priorities.

Acute Art, Khora Contemporary and VIVE Arts have all chosen to cooperate with visual artists as their core business, believing that artists could trigger innovative ideas. Active since 2017, Acute Art is probably the best-known of the three companies. Its self-declared mission, as stated on their website’s homepage, is to

“collaborate with the world’s leading contemporary artists, providing access to cutting-edge technologies that allow them to translate their creative vision into new digital mediums — including virtual, augmented and mixed realities.” The list of artists involved with Acute Art includes figures whose popularity has transcended the limits of the art world such as Marina Abramović, Jeff Koons, Olafur Eliasson, and Anish Kapoor. These artists always pushed the boundaries between art and entertainment. Addressing VR was a logical step.

Interestingly, these artists approached VR for the first time thanks to Acute Art. The company’s peculiar ability is to stimulate already established artists to meet new challenges towards immersive technology and create new synergies between them and technicians. It is not by chance that a noteworthy contemporary art curator, the Swedish Daniel Birnbaum, was chosen to be the company’s artistic director. Birnbaum is a renowned name in the contemporary art world, having directed the 53rd Venice Biennale in 2009 and the Moderna Museet in Stockholm from 2010 to 2018. Birnbaum’s nomination as the head of Acute Art in 2019 is proof that the very definition of artist and the entire art system has embarked on a massive process of change. Experimenting with new forms of cultural production through the adoption of technology is a way to bypass the art market’s logic and contribute to technological innovation on different premises than those of any other tech business.

The curator’s role is essential in assigning credibility to these companies’ activities, in framing these hybrid productions as works of art rather than mere forms of media entertainment. For instance, Birnbaum represents a true bonding figure between the company, artists, and the cultural world at large. He has the skills to steer the work of artists who normally produce on different terms. On the occasion of a summit on “art in the digital age,” which took place in Verbier in Switzerland in 2018, Birnbaum had the chance to discuss VR with Canadian novelist and artist Douglas Coupland. With great enthusiasm, he claimed: “It seems that once or maybe twice every century, a technological breakthrough occurs that changes fundamental conditions of our being-in-the-world” (Birnbaum and Kuo, 2018: 15). What emerges is not necessarily a utopian outlook on VR but an acknowledgment of the major role played by VR in addressing issues of identity, materiality, perception, and empathy.

In Abramović’s *Rising* (2018), one of the early projects produced by Acute Art, users enter an intimate virtual space and come face-to-face with the avatar of the charismatic Serbian-American artist. The user can finally fulfill the common desire of touching her body, as this haptic dimension is at stake in most of the artist’s projects, from her early performances of the 1970s to the popular event *The Artists Is Present* (2010) which was staged at MoMA in New York. After establishing contact with the artist, one finds oneself in a dramatic setting, surrounded by melting polar ice caps. Acute Art developers captured the artist’s unique facial expressions in order to create a realistic avatar that could transmit an emotional vibe, albeit no technology could ever recreate the aura that characterizes her presence in the flesh (Figure 3). *Rising* is not a site-specific installation; users are allowed to experience it on-site, in the case of presentations in exhibition spaces, or remotely, from any location, wearing immersive headsets.

Carrying on the “performative” narration typical of the artist’s oeuvre, the body becomes a door through which one experiences the traumatic impact of global warming. Trapped inside a glass tank that is slowly filling with water, Abramović asks the user to help her before it is too late, before the water level rises above her head and drowns her. The scene is a metaphor for rising sea levels; choosing to save the artist, the user saves the planet. As in the works by Rafman and Wolfson discussed before, one finds oneself immersed in an emotionally intense micro-narrative based on a dystopian scenario that ultimately addresses the very role of VR. “With virtual reality, technology players will be immersed in a dystopian world,” states the artists in a behind-the-scenes documentary on the project. “It seems increasingly likely to be the future of our planet. I hope to explore the questions if immersive play will increase empathy for the present and the future victims of climate change and how this experience will affect players’ consciousness and energy” (Abramović, 2018).

The work of Khora Contemporary unfolds along the same line of Acute Art. The company’s mission, as it appears on its website, is to “provide artists with best assistance to develop and unleash their imaginative visions exploring this new media and its limitless possibilities.” Chinese artist Yu Hong’s VR piece *She’s Already Gone* (2017), produced by Khora, is based on a virtual extension of the artist’s painting practice. Her portraits of Chinese women, at various ages, hint at the psychological impact of the social transformations that are taking place in her country. Presented at Faurshou Foundation in Beijing, in this VR work the user follows the life of a Chinese woman, from birth to old age, moving within different spaces. A defining feature of this piece is the

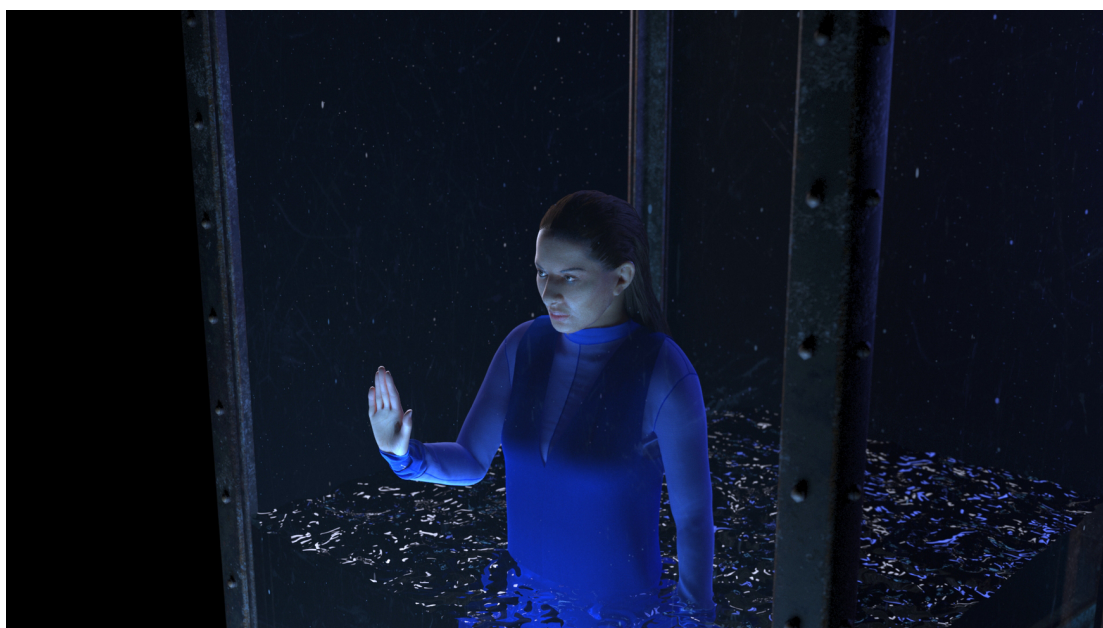


Figure 3. Marina Abramović, still from *Rising*, 2018, Courtesy of Acute Art

hand-painted feeling of each space, characterized by visible brushstrokes, which adds a layer of physicality to the virtual world and at the same time reinforces the power of painting in addressing a mental state through an expressionistic approach informed by memory and culture.

Unlike Acute and Khora, VIVE Arts is not exclusively involved in visual arts projects. Its productions are articulated in four different areas: cultural heritage; art and photography; architecture and design; and film and performance. Its distinctive feature is that its projects are not self-initiated but always developed in partnership with institutions ranging from museums to biennales, and from film festivals to fashion shows. VIVE Arts projects explore the immersive potential of VR thanks to the high-end technology and expertise of Taiwanese corporation HTC, of which VIVE is a division, and are rarely interested in metalinguistic forms of criticism on the medium itself. For example, Cai Guo-Qiang's *Sleepwalking in the Forbidden City* (2020) for Palace Museum, Beijing, is a mesmerizing virtual fireworks ceremony akin to the gunpowder choreographic spectacles-as-art-events, normally staged outdoors, for which the Chinese artist has been known since the 1980s.

A one of a kind VIVE production is French artist Dominique Gonzalez-Foerster's *Endodrome* (2019), made for the 58th Venice Biennale (Figure 4). Gonzalez-Foerster emerged in the early 1990s in association with the Relational Aesthetics movement theorized by Nicolas Bourriaud, and is known for creating interactive installations based on a twisted perception of everyday spaces. With *Endodrome* — whose title combines the Greek word *endon*, meaning “internal,” and *dromos*, meaning “race” —, the artist proposes an immersive exploration into an abstract space that is a metaphor of an altered state of mind. Reinforced by Corine Sombrun's soundtrack, the eight-minute journey envisions a shamanic trance experience. The work is reminiscent of the psychedelic light shows of the 1960s, with the only difference that, thanks to the “unframedness” of VR, one feels to be experiencing this virtual space in one's own head, like a true hallucination. Moreover, it is also a critique of the isolationist dynamics of the VR medium.

4 The Primacy of Sight: From Viewership to Empowerment

This essay was conceived during the COVID pandemic, a state of global emergency that has accelerated our dependence upon technology. We are still waiting for proper responses by artists to such a difficult moment, and the changes society and human life is undergoing. The effects of extreme measures such as lockdowns,



Figure 4. Dominique Gonzales-Foerster, *Endodrome*, 2019. Virtual reality environment. Duration and dimensions variable. Soundscape by Corine Sombrun. Supported by HTC VIVE Arts. Exhibition view: May You Live in Interesting Times, 58th International Art Exhibition – La Biennale di Venezia, Venice 2019. Courtesy the artist; 303 Gallery, New York; Corvi-Mora, London; HTC VIVE Arts; Esther Schipper, Berlin. Photo © Andrea Rossetti

social distancing, and the online shift of most of our daily activities, including education, work, and leisure, or anything that traditionally involved a physical encounter with other human beings, have proven to be hard challenges. However, if we look at the VR art projects that have been discussed, we can see how they prefigured some aspects of the current state of fear and concern. To make sense of the pandemic, we do not need to wait until the art projects being made right now will be disclosed; it is enough to look at some of the art that was made in the past five years. The futuristic impulse that characterizes most of the art approaches to technology often implies the prefiguration of future scenarios.

In most cases, as with VR, the speculative approach that contemporary artists have with regards to technology brings them to imagine dystopic futures. It is not that artists are anti-technology or anti-progress. Quite the contrary: most artists have praised the arrival of new technologies, but they have also proposed different applications for them. In the 2018 conversation mentioned above with Birnbaum, Coupland talked of a certain feeling he normally experiences with VR, which he referred to as “VR sadness”: “People put these things on and they come out,” he said, “and they never quite return to the full world, and a part of them is invested in this machine” (Birnbaum and Kuo, 2018: 54). This is precisely one of the points raised by some VR art projects such as those by Wolfson and Abramović, who employed VR to empower users, to awake their conscience, with the hope they would return to the real world determined to take action, or at least a position, with regards to the problems that affect the world whether it be violence, climate change, or something other.

The VR works of art considered here have elicited such introspective dynamics thanks to an inversion in the media mechanisms of VR and the modes of narration associated with them. Whereas most VR applications imply a shift in the user’s position, from viewer to storyteller, in most VR art projects one is confronted with the inescapable condition of passive viewership, no matter how illusionistic the immersion and interaction with a VR space is. We are helpless in front of the person being beaten to death in Wolfson’s work. We can only watch the disaster of our earth in Abramović’s work: whether we decide to save her avatar from drowning or not, we know this will not have an actual impact on the planet. By pushing us to a condition of impotence, both these works reestablish passive dynamics that are characteristic of the modes of narration of classic media such as cinema and television. Like the audience in Burden’s *Shoot*, we are confronted with the fact that we can hardly escape our condition of spectatorship.

Many contemporary artists that employ VR overturn the modes of storytelling typical in most applications of this technology, namely an immersive version of traditional cinematographic narrative forms that depend on the user’s movements and ocular behavior. Sure, one has the feeling of moving and experiencing a customized immersion in a VR space, whether one is standing or sitting in a room. However, the users cannot move, they can only watch; this is the true condition of VR which the artists discussed above expose in their works. Their idea of storytelling is less based on exploring the illusionistic dynamics of unframedness, presentness, and immediateness and more focused on improving the viewer’s critical awareness regarding the very mechanism of VR. Therefore, the narration becomes less dynamic and more based on the act of seeing, which, although it implies (and often exploits) the possibility of movement, as in cinema and television, leaves the body at rest.

By restoring the primacy of sight over movement, the artists discussed in this article show how VR’s appeal relies on the fact that it offers new and exclusive ways of seeing. According to Italian media scholar Simone Arcagni, “to access another visual world, it is necessary to completely turn off the ‘real’ one through a headset that first eliminates sight and then activates a new one. Virtual reality is therefore born within a reset of vision, a sort of initial blindness that marks a clean break from any other visible up to this moment realized” (Arcagni, 2018: 110). While most VR applications in gaming and cinema exploit this aspect to allow users to experience illusionistic forays into virtual worlds, visual artists seem to be more interested in opening up a discussion on our current technological condition. Rather than an excited explorer of phantasmagoric universes, stimulated at various sensorimotor degrees, the user is reminded that most of one’s life is increasingly being conducted from behind a screen: from the illusory feeling of immersion, one can only get frustrated.

In the past decade, pioneering VR developer Lanier has turned into a prolific writer that polemicalizes against the contemporary Internet industry, notably social networks, through successful books such as *Who Owns the Future* (2010) and *You Are Not a Gadget* (2013). Unlike these, *Dawn of the New Everything: Encounters with Reality and Virtual Reality* (2017), which came out when VR was becoming relevant again, is animated by the same technophilic attitude that characterized his 1980s experiments and early wearables. “VR is one

of the scientific, philosophical, and technological frontiers of our era,” argues Lanier in his book. “It is a means for creating comprehensive illusions that you’re in a different place [...] And yet it’s also the farthest-reaching apparatus for researching what a human being is in the terms of cognition and perception. Never has a medium been so potent for beauty and so vulnerable to creepiness. Virtual reality will test us. It will amplify our character more than other media ever have” (Lanier, 2017: 1).

Lanier’s enthusiastic view of VR has not changed over time. According to this visionary father of VR, unlike other technologies, VR has always represented a tool for self-analysis, in the 1980s as well as forty years later. The visual artists discussed so far have developed a similar approach. There is not necessarily a critique of the medium per se, but of how it is used. In developing forms of storytelling based on metalinguistic investigations of the medium, these artists are recovering an intrinsic characteristic of VR, namely its capacity to allow users the chance to “[research] what a human being is in the terms of cognition and perception” (Lanier, 2017: 1). This is precisely what Gonzalez-Foerster’s *Endodrome* is about: the artist takes the role of the shaman who, by manufacturing a virtual trance state, induces the user to an altered state of consciousness, also known as *state of flow*, in which one is in complete control and voluntarily merges with the surrounding nonphysical reality.

Besides Lanier, hardly any of the recent studies on VR discuss this technology in similar terms or as a psychological introspection device. In *Storytelling for Virtual Reality: Methods and Principles for Crafting Immersive Narratives* (2017), for example, John Bucker examines how classical storytelling modes can be applied to VR, focusing on cinema and animation. According to Bucker, there are two main storytelling approaches to VR, one in which the user watches a scene played out in the surrounding space, and the other one where the user becomes the camera. Bucker argues that “Storytelling in Virtual Reality is less about *telling* the viewer a story and more about letting the viewer *discover* the story” (Bucker, 2017: 7). What this and other studies on VR fail to acknowledge is VR’s capacity to enhance the user’s consciousness. If storytelling in VR is, as Bucker suggests, about letting the user discover a story, then most VR art projects rely on a type of storytelling that pushes one to discover, or rather be confronted with, oneself.

Is VR bound to vanish and soon become an obsolete technology? Considering its fluctuating progress, particularly the fact that around the turn of the millennium it did not garner much attention, this is highly foreseeable. Another indicator is the decrease in sales in the video game industry after an early phase of excitement. Aside from entertainment consumerism, VR might be increasingly used to create realistic simulations with training or testing in fields as diverse as the military, medicine, education, the automotive industry, and space agencies. It is not a coincidence that one of the early adopters of Lanier’s wearables in the 1980s was NASA. Considering the current COVID pandemic and related future scenarios based on social distancing, VR applications might be developed to perform daily activities at a distance, from work to leisure to sex, as VR pornography is a field that is being highly debated. However, many technological advancements need to be made, particularly concerning the unwanted symptoms caused by the prolonged use of VR.

When artists adopted the Sony Portapak in the late 1960s, some of them analyzed the mechanism of video as a medium and how it was being used in the television industry. Others, associated with the Guerrilla Television movement, experimented with new forms of storytelling that eventually brought to new ways of doing journalism, documentaries, and filmmaking at large. With VR today, we seem to be on a similar threshold: some artists are deconstructing the mechanisms of VR as medium and language, even in narrative terms; others are proposing new applications of it, in strict collaboration with high-end companies that are able to turn even conceptual approaches into workable solutions. These artists are not interested in exploring the immersive, multi-sensory experience offered by VR for its own sake, but in exploiting it to make users aware of the alienating and desensitizing impact of digital technologies, empowering them to distinguish actual reality from its surrogates, no matter how illusory these might be.

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