

Fractured and fragmented selves: queer approaches to designing virtual experiences

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(150 words or less)

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Abstract

This article presents an overview of three queer Virtual Reality projects, *Virtual Drag* (2016), *Domestika* (2017) and *Untitled* (2020). These are considered alongside other examples and design experiments by the authors that also take a critical, queer approach to representing bodily forms in virtual environments. This consideration includes looking at how bodies are represented in the environment that the participant explores, as well as the embodied experience of the participant visiting the environment either via a Head-Mounted Display or via desktop. Through the discussion of queerly performed embodiment offered by these precedents, we propose a queer sensibility of disembodied presentness for Virtual Reality that embraces a position of immersion and presentness in multiple physical and virtual realities at once, as a theoretical and aesthetic grounding principle. Queering of presentness is a key concept that emerges through these works, in part due to the multiplicity of perspectives that VR affords.

In *Virtual Drag* (2016) by Alison Bennett, Megan Beckwith & Mark Payne, we see the use of photogrammetry and glitch aesthetics to bring ideas of queer performativity and drag “realness” to the fore when imaging bodies with permeable, porous boundaries in Virtual Reality. In *Domestika* (2017) by Jacolby Satterwhite, the virtual environment is populated with multiple avatars that repeat recordings of the artist’s dance performances; in this multiplicity of repeated traces, a viewer is unable to settle on a fixed representation of the artist’s self. This effect is amplified by the participant’s non-corporeal presence, demonstrating the creative potential of queer disorientation in virtual environments. In *Untitled* (2020) by Tarik Ahlip and Tactical Space Lab, we are immersed in a cinematic environment, a virtual film set, filled with simulated light. There, we encounter the artist’s

body, disembodied and forcing the viewer into the role of virtual voyeur and onlooker to actions out of time.

Through the discussion of queerly performed embodiment offered by these precedents, we propose a queer sensibility of disembodied presentness for Virtual Reality that embraces multiplicity and variance as a theoretical and aesthetic grounding principle.

Introduction

This article is an exploration of queer ways of thinking about bodies, bodily representation, and embodiment in Virtual Environments. It examines a variety of precedents as well as one of our design experiments in order to point towards the queer affordances of the medium. We propose a queer sensibility of disembodied presentness for Virtual Reality that embraces malleability of identity as a theoretical and aesthetic grounding principle. Of particular interest is the notion of a queering of presentness that occurs in these works and that we see as a unique affordance of this queer approach to virtual environments. We will see that this queering of presentness works in opposition to many of the stated aims of embodiment in more mainstream contemporary VR.

In our discussion, we are cognizant that there is an extensive history of digital networked technologies and early internet infrastructures, such as virtual environments created through text-based chat portals, which queer communities have long used to explore anonymity and the contingent, varied ways of manifesting identities in online spaces. We see contemporary queer approaches to VR as a continuation of these earlier sensibilities, using a medium closer to the body and offering a set of new affordances.

What we are exploring here in regards to VR falls outside of the mainstream regimes of avatars and the familiar visual vocabularies of bodies that might be encountered in a standard video game. It also stands apart from a move towards a general digital ubiquity as offered by the mainstream tech industry, and in particular, its faltering vision of a universal and totalising metaverse¹. Instead, we look for expansive, critical, and queer alternative approaches to representing bodily forms in virtual environments and how principles of

malleable identity and disembodied presentness can act as facilitators for queering experiences of Virtual Reality.

Central to this article, we will examine three queer Virtual Reality artworks, not just for the images or visual language used to represent bodies in virtual space, but also the embodied experiences — or indeed disembodied experiences — they enable. These works represent a small cross-section of time starting in 2016 when the Oculus Rift, in combination with game engines such as Unity, enabled consumer-level access to exploring VR's potential in a varied and diverse manner — leading up to Facebook's rebrand to Meta in 2021, which kickstarted Meta's campaign to set the agenda for what VR should (and should not) be. At this point, VR as a medium became inextricably linked to the concept of "the Metaverse" under Meta's aegis. We will also touch on some precedents to the discussed works from this short period and see that creative Queer practice has been pushing beyond the expectations and power-holds of the tech hegemony in this space for some time.

The works discussed are *Virtual Drag* (2016) by Alison Bennett, Megan Beckwith & Mark Payne, *Domestika* (2017) by Jacolby Satterwhite and *Untitled* (2020) by Tarik Ahlip and Tactical Space Lab. We use these works to frame how the virtual self is experienced for participants as well as how it is represented and experienced by others within the same environment. In this analysis, we are motivated by queer perspectives such as Sara Ahmed's *Queer Phenomenology* (2008) and José Esteban Muñoz's *Cruising Utopia* (2009), both of which have been highly influential for New Media creative practitioners.

Queer Frameworks for VR

In our own consideration of these VR works, we are drawing on the scholarship of Sara Ahmed in her key theoretical text *Queer Phenomenology* (2008), as well as the work of José Esteban Muñoz in *Cruising Utopia* (2009). *Queer Phenomenology* offers a reconsideration of queer identity through a phenomenological lens, understanding queer identity and desire as a spatial, temporal experience that reinforces over time; queerness becomes defined by the continual, repeated process of turning away from heterosexuality and towards queer desires. Meanwhile, *Cruising Utopia* shows the potential of hope as a critical worldbuilding strategy, examining how ephemeral cultural practices in queer spaces lay the groundwork for queer futures.

In *Queer Phenomenology*, Sara Ahmed uses the concept of compulsory heterosexuality from Adrienne Rich alongside Merleau-Ponty's phenomenological writing to develop a theory of Queer phenomenology. Ahmed understands sexuality as a spatial process, in which straight lines of heterosexual norms are enforced through the availability of certain life decisions. Her work shows orientation to be an ongoing, spatial experience of reinforcement, and this malleability of identity also suggests the power to disrupt certain (heterosexual) lifepaths. Discomfort and disorientation, in Ahmed's *Queer Phenomenology*, become crucial tools for turning away from straightness. Ahmed's work sticks to bodily consideration of the political, thinking about the intimacy and contact of skin surfaces as the meeting point of self and world; bodily experience is understood as a process of constant malleability and interaction between environment and self.

Using this framework to think about embodiment in VR leads to a queer perspective that prioritises embodied experiences as an opportunity to disorient and to frustrate the repetition of straight narrowness. It encourages a consideration of skin surfaces and contact and emphasises how performance of the body against the grain can be a queer act. In using Ahmed's understanding of Queer Phenomenology, we look at VR experiences to see how they shape and reposition "the direction of our desire" (Ahmed 2008: 1) and how the production of bodily experiences in virtual reality re-inscribe or disturb straight lines of being.

Cruising Utopia by José Esteban Muñoz presents a formation of critical queer utopianism, drawing on the hope and utopianism of Ernst Bloch. Through analysis of art, performance and spaces of queer community (such as nightclubs), Muñoz argues for a mode of queer utopianism that draws on the past to envision a queer future, emphasising the value of ephemeral connection and partial worldbuilding. Muñoz's work is particularly valuable for its emphasis on spatial transformation into queerness as a way to contrast and work against oppressive heterosexual norms. Esteban Muñoz, as a scholar of performance studies, links queerness with the performative; he argues that "queerness is also a performative because it is not simply a being but a doing for and toward the future" (Esteban Muñoz 2009: 1). A queer understanding of VR that draws on Esteban Muñoz pays close attention to "the gesture and its aftermath, the ephemeral trace... [as these] ...matter more than many traditional modes of evidencing lives and politics" (ibid.: 81).

By extending on Esteban Muñoz's work, we suggest that VR, as a medium that cannot be total or all-encompassing, can provide a space of ephemerality where queer utopias can be manifested and performed, if only for a moment; it also brings forward gesture and

ephemeral trace as essential queer strategies for manifesting and performing malleable queer identity. Both Ahmed's and Esteban Muñoz's texts have been highly influential for creative practitioners and scholars alike, and their influence and resonances are seen in the following VR works that we will discuss².

We also see alignments with feminist theory that understands gender as an act of doing, rather than being. For example, when Judith Butler states that “[t]here is no gender identity behind the expressions of gender; that identity is performatively constituted by the very “expressions” that are said to be its results” (Butler, 1990: 24), we understand that these “expressions” are both “forms of” and “forming of” gender and Queer identities—not only in the physical, but also virtual environments. We will see that Bennett et al. take up this notion in their discussion of “Virtual Drag”. Haraway's figure of the Cyborg—as boundary rider, crosser of thresholds and “leaky” dweller of the spaces between animal, human and machine (Haraway, 1991)—also comes to mind; the Queer VR experiences we will describe all invite a viewer into this role, taking on the mantle of Haraway's feminism and extending it to an understanding of Queer boundary crossings from the physical, to the virtual (and the spaces in between).

In bringing Ahmed and Esteban Muñoz (and the varied lines of thought in the wider field of Queer Theory) into conversation with contemporary VR projects we are keeping in mind Kara Keeling's article *Queer OS* (2014), which argues that “[as] an evaluation of contemporary intersections of LGBT studies, queer theory, and cinema and media studies suggest, the materiality, rhetorics, forms and ontologies of new media readily lend themselves to a theoretical encounter with queer theory” (2014: 152). While primarily concerned with *Queer OS* as a scholarly project, the call for a *Queer OS* as a mode of

analysis for New Media Studies as well as creative practice has been extended in *QueerOS: A User's Manual*, which engages “with the challenge of understanding queerness today as operating on and through digital media and the digital humanities” (Barnett et al. 2016: 51). This considered response brings forward Queer understandings of *interface, user, kernel, applications, memory, I/O* and *warning*, drawing on eclectic sources to guide their Queer framework. In their discussion of *interface*, the authors of *QueerOS: A User's Manual* ask, “what would it mean for an interface to take self-modification as its ontological premise, such that interaction with an interface might transform both the user and the system?” (ibid.: 52). While we do not refer specifically to self-modification, we aim to continue to this thematic focus by bring forward examples of how the affordances of VR have combined with queer understandings to create experiences of what we refer to as malleability of the self.

While the VR projects we discuss in this article do not intend to recreate the specific positions of scholars such as Ahmed and Esteban Muñoz in VR, by bringing together theory and creative practice, we intend to draw forth the resonances and affinities of queer scholarly work and queer creative practice and consider what these commonalities and affinities offer for an understanding of embodiment in VR.

Embodiment in VR Research

For visitors to Virtual Reality environments, presence across virtual and physical spaces are one and the same phenomenological experience: Andrew Burrell has previously described this as “virtual environments... be[ing] seen as an extension of reality – the physical and the virtual sitting side by side with one, more often than not, bleeding into the other. The virtual is not separable from the physical and vice versa” (Burrell 2021: 92). The potential for this

porous membrane of the physical and the virtual to become the focus of creative engagement with VR invites examination through a range of queer approaches. This, in combination with Ahmed’s notion of the malleability of the contact surface between environment and self—a malleability that challenges a stable sense of embodiment—makes virtual environments a perfect zone, laying across a number of “fields of difference” (Haraway, 1991:29), for investigating what a particular and situated Queer embodiment may be.

What, then, does it mean to be embodied in a virtual environment? Embodiment is a key aspect of VR research — with concepts such as the Body Ownership Illusion (Slater et al. 2010) and Sense of Embodiment (Kilteni, Groten, Slater 2013; Fribourg et al. 2020) prominent in research for Avatar Design in virtual environments. We take our definition of embodiment from that offered by Kilteni et al. (ibid.) as being a sense of bodily autonomy within a virtual environment as a result of three related phenomena: the sense of self-location, the sense of agency, and the sense of body ownership. Jerald (2016: 45-48) offers a similar definition of embodiment, being a perception of the user's body within a virtual environment as a result of both immersion and presence³.

As a result⁴ of efforts to create an increased sense of immersion and presence to enhance the perception of embodiment in VR, there has been a general contemporary emphasis on working towards increasingly realistic illusions. The market has tended to be driven by a desire for visual verisimilitude, which should be considered along with the resulting ethical considerations by Slater et al. (2020). In opposition to this, there is also a challenging thread of what Jaron Lanier calls “homuncular flexibility” (Lanier 2017: 169) that tests the boundaries of what forms an avatar can take as a bodily representation in VR, and still be understood, or read, as the embodied self in virtual reality. Lanier is both a pioneer of virtual

reality and a staunch critic of contemporary tech frameworks. He is famously quoted as saying in a 1990 article for *Rolling Stone* magazine that in VR worlds, “you might be someone or something else. A lobster, an insect, a saxophone” (Levy 1990: 90). This sense of “homuncular flexibility” has survived into the contemporary popular imagination of VR, in that virtual embodiment can allow a user to “be” someone or something else.

As an example of this thinking, a recent post in the popular US-based blog *HomoCulture* (Kivi 2022: n. pag.) refers to the possibilities of this (imagined) type of self-representational flexibility by saying, in reference to the emerging metaverse, that “VR is quite literally a place where you can be anything you want. You could likely find yourself flying on a farting doughnut through space while talking to a hella sexy horseman with abs” (ibid.). There is an obvious disconnect in the popular imagination here, which celebrates the distance from reality and expansive range of possibilities for avatars, compared to the model of the “metaverse” as offered by the likes of Meta, which emphasises recreation of “accurate” real-world selves.

But more importantly, the “sexy horseman with abs” hypothetical reveals an underlying philosophy regarding how the process of embodiment works in Virtual Reality. It equates a sense of embodiment in VR with a false notion of a stable and entire transfer of a self into “becoming” the thing via abandonment of the “real” body, rather than experiencing a malleability of self that allows for an experience of the thing, with the body — an experience that remains and cannot be forgotten or left behind with the simple removal of the headset. This sense of embodiment in VR as part of an ongoing malleable self—as part of a blended continuum of physical and digital — is a much more queer approach; it understands that even before Virtual Reality, the embodied self is an ongoing, situated, experiential process.

This continuum of physical and digital is fraught with layers of possible shifts in a viewer's relationship with their own self and *the other*. At one end of the continuum, there is the notion that you "become" that other, and in doing so, you are abandoning the "real" physical self. Towards the centre of the continuum is an "inhabiting" of this other, and at the other extreme, a disembodied voyeuristic view of the other, from an outside looking in. These positions, laying on a continuum as they do, shift and bleed into one another. From these possibilities and the combinations that lay in between, a virtual body then forms, but ever present are gaps between the physical and virtual body. It is in these gaps that a queer approach to VR finds its ability to reveal other malleable selves within and from the fragments.

Interestingly, in the same Rolling Stone article that Jaron Lanier discusses "homuncular flexibility", Laurie Anderson (Levy 1990: 92) is quoted as saying in response to her first immersion in VR that "There's no dirt in here!". In many ways, what contemporary practitioners who have taken up the task of queering VR have been doing is looking for ways to bring some dirt into VR, with the incorporation of fragmented, multiplied and varied digital traces of the body that reveal the "substrate" materials of VR and disrupt the polished veneer. In these explorations, they have expanded beyond normative modes of embodiment and representation, encouraging instead modes of creative practice with VR that turn from the goal and efficacy of realism towards the exploration of queer aesthetic and political meanings for VR as a medium. We see the glitch taken up as not only an analogy for, but as a virtual counterpart to physical dirt. This is much more than a simple glitch aesthetic taking advantage of well-worn tropes in computer graphics and sci-fi, but instead a deeper exploration of digital-borne dirt and how this might be embraced as part of a queering of VR,

rather than optimised out of existence. This glitch/dirt is not created as an extra or afterthought, but is instead produced as part of the material processes of creating the virtual environment itself.

The projects we discuss do not focus solely on closing the gap between the physical and virtual body, and they do not manifest this layered experience of embodiment as a linear transfer from one to another. Instead, they take the continual presence at the juncture of physical and virtual as an opportunity to perform queer strategies of meaning-making in digital environments. They are exploring malleable digital selves as a way to reflect on the queer malleability of self in general. By looking to these creative works, we can see visual and spatial languages developing that are enabled by the digital technologies used to develop virtual environments, as well as the way these visual and spatial strategies queer experiences of presentness in Virtual Reality.

Virtual Drag

Virtual Drag (2016) by Alison Bennett, Megan Beckwith and Mark Payne is a Virtual Reality "encounter" with 3D recordings of drag queens and kings in a fantasy 3D landscape. The work shows the featured performers reconstructed as 3D figures created through a photogrammetry process, with these figures manifesting and repeating throughout the landscapes. These virtual renditions of bodies have simple, uncannily and almost non-human movements animating them.

Figure 1: Alison Bennett, Megan Beckwith and Mark Payne, *Virtual Drag*, 2016. Virtual Reality Experience. 10-minute 360 Video. Available at: [Virtual Drag - 360 VR Video](#). Screenshot captured by authors and used with courtesy of the artists.

Figure 2: Alison Bennett, Megan Beckwith and Mark Payne, *Virtual Drag*, 2016. Virtual Reality Experience. 10-minute 360 Video. Available at: [Virtual Drag - 360 VR Video](#). Image courtesy of the artists.

360 photogrammetry was used to record the drag performers for *Virtual Drag* and produce their Virtual Reality counterparts. 2D photographs captured from all angles surrounding the performer were transformed into a 3D model, often with tell-tale artefacts of the algorithm's "failures" during the compilation process. These glitchy, edge-fragmented artefacts are embraced by the creators of *Virtual Drag*. Rather than aiming for mimesis, they critically engage with what it means to have "realistic" representations in virtual mediums, presenting the glitchy, porous 3D recordings of bodies that reveal their means of production as digital artefacts. Some of the untidy edges of the physical world feel like they are penetrating the virtual, as if the dirt that Anderson felt she was missing has found its way in.

The recordings are placed in the environment as huge repeated 3D objects, or hovering clouds in a dark void; their incorporation into the digital environment as aspects of the landscape trouble the expectations of bodily representation as separate from the environment.

The performers' embodied experiences are present as virtual traces, with 360-degree imaging that has captured one momentary performance, which has then been reconstituted and spawned in a digital landscape as a bodily non-presence. The re-presentation of this moment of capture skews our sense of presence and presentness — past and present are conflated, and figure and ground are smeared and troubled at the peripheries.

In their own explanatory exegesis presented both in text format and in a spoken video essay form (Bennett, Beckwith, Payne 2016), they explicate the theoretical groundings of the project, particularly how their approach to Virtual Reality is grounded in queer understandings of performativity and drag “realness”. They ask: “What could drag reveal about the emergence of virtual cultural practices? What is the virtuality of drag? What might the drag concept of ‘realness’ reveal about the structures that constitute virtual reality?” (Bennett 2016: 2). They cite Judith Butler’s 1990 essay *Imitation and Gender Insubordination* (ibid.: 2), in which “Butler argues there is no original gender expression. She positions gender as simulacra, a copy of a copy. Heterosexual gender is also performative but seeks to position itself as ‘original’. The performance of drag reveals these structures” (ibid.: 2). They put forward the argument that the theoretical and aesthetic qualities of VR, as a liminal virtual space, is highly compatible for manifesting queer performances of gender; they emphasise how “gender expression is a process, a transition, a becoming” (ibid.: 2). Deeply embedded in their work is Butler’s notion of gender (and gender identity) performativity, in which gendered relations and identity emerge as a result of doing, as opposed to an understanding that sees gender as a pre-existing fixed and essential quality that results in a set of “authentic” gendered expressions. In *Virtual Drag*, Queerness is quite literally performed across the physical/virtual threshold, and we are invited to “peer into” the cracks, dirt and glitches that form in the process. There is no solid, specific, objective and wholly accurate

representation of the performers. Instead, we are invited amongst the ongoing “doingness” in order to understand the performed, partial, multiple and varied enactments as their own form of queerly authentic embodiment for virtual environments.

Figure 3: Alison Bennett, Megan Beckwith and Mark Payne, *Virtual Drag*, 2016. Virtual Reality Experience. 10-minute 360 Video. Available at: [Virtual Drag - 360 VR Video](#). Image courtesy of the artists.

In contrast to the fragmentary, varied representations of the performers, visitors to this digital environment will find that their own presence isn't represented visually. Visitors are left disembodied — yet present in a way the performers are not — as they gently float through the landscape. While ghostly recordings of the performers haunt the landscape, the visitor is present but unable to interact with the environment around them, carried through the environment on a predefined course, able only to shift their view by looking around as they are propelled through the space. The lack of agency for the viewer prevents a sense of full immersion in the landscape, creating tension and a departure from an expected sense of control as a “first person” participant. This experience of disembodied presentness for the viewer — there and not there, present in virtuality but unable to act — works in tandem with the glitchy, repeated, monumental forms of the recorded drag artists to trouble a visitor's sense of bodily integrity and stability. This creates another form of immersion, a more complex experience where the boundaries of a malleable self collide with, and are fragmented by the VR space.

Looking at this work, we can see creative strategies in common with earlier cyberfeminist techniques and approaches to digital materiality. For example, in Linda Dement's landmark artwork *Cyberflesh Girlmonster* (1995), Dement used primarily 2D image-making strategies, with participants scanning body parts on a flatbed scanner, which Dement then collaged together into new monstrous forms. This scanning and collaging can be seen as a more manual, two-dimensional predecessor to 3D photogrammetry. In Dement's work, the body is malleable, flesh is exposed through porous skin, organs protrude, transforming into entities in their own right. The orderly visual structure of sterile, hard-edged pixels are no more in Dement's world of gashes and digital flesh, in which bodily disintegration and re-stitching combine to form images of "monstrous femininity" (Dement 2020). In *Virtual Drag*, the glitchy partiality of photogrammetry challenges conceptions of stable and whole gender performance and in doing so, puts forward an understanding of Virtual Reality that sees the unstable nature of presence in another space as something to be played with, challenged, deconstructed and explored.

Figure 4: Linda Dement, *Cybergirl Fleshmonster*, 1995. CD-ROM. Image courtesy of the artist.

Figure 5: Linda Dement, *Cybergirl Fleshmonster*, 1995. CD-ROM. Image courtesy of the artist.

Figure 6: Alison Bennett, Megan Beckwith and Mark Payne, *Virtual Drag*, 2016. Virtual Reality Experience. 10-minute 360 Video. Available at: [Virtual Drag - 360 VR Video](#). Image courtesy of the artists.

In *Virtual Drag*, it is clear that the recording and representation of performers' bodies within the landscape offers particular aesthetic strategies for a queer critical approach to virtual reality, and in addition, the viewer's lack of direct representation is crucial for generating a sense of disembodied presentness, in which the visitor feels present within the landscape, yet unable to touch or enact upon their surrounds. The range of effects this has for a viewer is something we are understanding as being central to this disembodied presentness; in the Virtual Environment, the self becomes malleable but is not replaced, container-less but not nonexistent.

Domestika

The VR experience *Domestika* (2017) by Jacolby Satterwhite combines familiar tropes of sci-fi space-ship-esque nightclubs and domestic home spaces in unfamiliar ways. Opulent and maximalist constructions of performers, creatures and machinery come together to form an uneasy amalgam of bodies, objects and spaces.

Inside the virtual environment, the viewer flies through the environment without an avatar form, with their path steered externally, and with surprising, sudden cuts that transport them to each different space in turn. These cuts are in direct opposition to “best practice” in VR as is imposed by hegemonic tech giants like Meta, who tend to prioritise comfort and continuity with the aim of a “seamless” experience.

In her article on *Domestika*, Sonia Misra (Misra 2020) argues that this lack of control for a viewer, as well as the abrupt editing, creates a sense of disorientation that should be understood as particularly queer, challenging dominant understandings of “appropriate” VR design. She asserts that the sense of being carried through a virtual environment without a bodily form can be further understood as a type of queer disorientation (Misra 2020: 41-42), with this queer disorientation taking on similar qualities to what we describe as disembodied presentness.

Misra argues that the disorientation created by this design approach is not just a bug that should be developed against, but is instead a critical aesthetic strategy that reveals VR’s potential as a “dis/(re)orientation device” (Misra 2020: 42). Taking this together with our own understanding of disembodied presentness and its disorienting force, we can see that queer strategies for Virtual Reality encourage critical reconsideration of normative standards for bodily experiences in Virtual Reality. Being present in a virtual environment without an avatar creates a disorienting force that detaches a viewer from their normal physical presence and habitual performances — instead, they become aware of the body through its absence. The experience of disembodied presentness then, destabilises the boundaries of physical and virtual and works against the traditional notion of immersion within the virtual environment — the viewer is unsettlingly aware of their dual, threshold experience of physical and virtual

being brought together. Queerness makes its presence known through the subjugation of normative principles of VR being a perfect simulation to lose yourself in; these principles are disrupted, and alternate principles are called to attention.

The varied fantasy landscapes of *Domestika* are populated by repeated recordings of the artist dancing, showing similar strategies of fragmentation, repetition and smearing of boundaries to *Virtual Drag*.

Discussing his practice more broadly with Art21, Satterwhite explained that:

“The way that our bodies exist virtually — it's a paradigm shift for the multiplicity of the body. Virtual space for me — it's a queer arena for my body to perform in.

Vogueing is all about performing realness. I feel like there is a perfect parallel between my practice and the ball scene.” (Art21 and Satterwhite, 2022)

These video recordings of the artist emphasise the recording of dance and movement, usually ephemeral performances, and enable these performed gestures to be activated and experienced as a multiplicity of virtual traces within the environment. There is no one definitive representation of Satterwhite's performances, and instead the chorus of partial, varied and ghostly recordings populate wildly different landscapes, bringing forward the queer potentiality of these imagined virtual worlds.

We might also think of these imagined worlds as the playground of Haraway's boundary-crossing figure of the Cyborg. We find the viewer journeying at a pace out of their control, where they must come to terms with “their joint kinship with animals and machines” (bodies

and dancefloors) and are “not afraid of permanently partial identities and contradictory standpoints” (Haraway 1991: 15). In *Domestika* we can also see a clear demonstration of the world building in and of queer nightclubs that Esteban Muñoz speaks to; the messy, the fragmentary, the hope and the salvation (Esteban Muñoz, 2009:108). The experience of disembodied presentness offered by this work and afforded by the medium of experimental VR offers a visceral embeddedness within and of the utopian queer futurity that is generated in physical, “real” nightclubs, recorded, re-generated, reimagined and made fantastic in this virtual world. In “Untitled”, the next work we will discuss, we can also see this worldbuilding in action, with filmic spaces being taken up in a fragmented, architectural virtual environment, where a voyeurism we have seen developing takes more of a central role.

Untitled - Tactical Space Lab X Tarik Ahlip

In 2020, the artist and filmmaker Tarki Ahlip worked with Josh Harle of the Tactical Space Lab to create a new experimental VR work. This untitled work presented a series of linked virtual spaces exploring filmic and experiential representations of bodies and spaces. The user explores these spaces without any bodily or avatar representation, though as Ahlip puts it, the sensory nature of working with virtual reality technology brought about an interest in the representation of his own body (TACTICAL SPACE LAB X Tarik Ahlip 2020: 20m30s). The user encounters fragments of bodies, for example, a rough 3D model of a torso, with video footage of Ahlip’s own torso virtually projected onto it, flesh manipulated by black-gloved hands. The viewer is left to wonder if these are the artist’s own hands, or someone else's?

Figure 7: Tactical Space Lab X Tarik Ahlip, *Untitled*, 2020. Virtual Reality Experience.

Screenshot captured by authors and used with courtesy of the artists.

The viewer is immersed in a cinematic environment: a virtual set filled with simulated light. This encounter with the artist's body is in a disembodied and sculptural form, multiplied and reinforced through projection. The viewer becomes voyeur and is both of and not-of a shared space with this body. The body, in this case, is very much not an extension of the user's own body, but this visceral representation with an emphasis on touch brings attention to the user's body in another way. With a sense of voyeurism and proximity to this virtual flesh, the user's own disembodied experience of the virtual space is brought to the forefront.

This experience also brings to the forefront an understanding of what Ahmed means when she states, "The body provides us with a perspective: the body is 'here' as a point from which we begin, and from which the world unfolds, as being both more and less over there. The 'here' of the body does not simply refer to the body, but to 'where' the body dwells" (Ahmed, 2006: 8). The disembodied presentness of Ahlip's and other queer VR experiences, not only fragments the 'where' of the body, it fragments the 'here' as well—a common phenomenological experience that is often hard to grasp in the physical world. Ahmed points to the resulting phenomena of 'reorienting' as a process in which the experiences of a body is "affected and shaped by its surroundings" (ibid.: 9). It is this affecting and shaping that is amplified in the queer VR environments.

The notion that the sense of embodiment in virtual space is emphasised through proximity to other representations of bodies (usually through avatars) is nothing new. Users of multi-user virtual environments such as *Second Life*® have reported this effect (Giles 2006) long before the advent of immersion via consumer grade head mounted displays into VR.

Other spaces in this work are starkly devoid of bodies. Architectural spaces, lit to evoke a cinematic sublime — where Kubrick’s signature style (TACTICAL SPACE LAB X Tarik Ahlip 2020: 22m 45s, 40m 14s) creates a distancing where the user is at once on a virtual stage set and an audience member viewing this empty stage waiting for the body of a performer to fill the void that their own absence has created.

Figure 8: Tactical Space Lab X Tarik Ahlip, *Untitled*, 2020. Virtual Reality Experience.
Image courtesy of the artists.

Other spaces reference the clinical and technical lighting setups known as the Cornell box, used to test the rendering of realistic lighting in 3D graphic environments. In these spaces the architecture itself becomes another body and forces the user into a disembodied present as they encounter these spaces; as stated by Ahlip, these spaces have been purpose-built to “explore paternalistic structures and male attitudes toward the body” (ibid.: 23m). We would add that in this exploration it also challenges these structures, turning the user towards a reflection on their own embodiment through this disembodied encounter.

Queer approaches to representation and virtual embodiment

Virtual Drag, Domestika and Ahlip's untitled work all fly the viewer through the environment, removing their agency to move freely at will through the virtual space. Alongside other scholars, we argue that this disembodied form of presentness within the virtual environment is a particularly queer strategy that can be emphasised with the aesthetic design choices of the environment itself.

It is evident that these works approach the limitations and affordances of these non-interactive journeys with a queer sensibility, with close attention to how to destabilise and reconfigure experiences of embodiment and bodily representation in 3d virtual environments. Each of these works, from a queer phenomenological approach, create embodied experiences that prioritise a sense of discomfort or disorientation within the embodied self, disturbing the notion of VR as a total transfer of soul into a new, perfect illusory body; instead, the ongoing becoming-ness and experience of the virtual space creates a sense of malleable self squeezed between real and virtual.

Body Traces

The works discussed in this article have been key precedents for practice-based experiments of our own. One key experiment, Body Traces, focused on translating the body into Virtual Reality through touch and friction rather than image recording or video. This is an ongoing investigation by Alexandra Chalmers Braithwaite as part of her PhD in Design, and will be discussed momentarily in the form of a first-person reflection upon practice.

This process involved tracing my own body with VR controllers in a 3D drawing program, and then transferring these traces into a designed interactive virtual environment where they are given colour and texture.

Figure 9: Alexandra Chalmers Braithwaite, *Body Traces*, 2021, Digital Drawing. Image courtesy of the artist.

*These traced forms and their subsequent transferral into a new environment show many of the same visual and performative strategies we've already discussed; each trace is a partial, momentary recording, rather than a totalising depiction, and uses the surface threshold between physical and virtual to complicate the performance of self. In Ahlip's work, an anonymous hand massages a recording of a headless torso; in *Body Traces*, the visitor's own controllers run along the surface of their unseen body.*

The participant — in this case, myself — inscribes herself into the virtual space through this physical movement, generating the digital traces through touch. In this experiment, I draw along the boundaries of an otherwise disembodied self, using the process to demarcate the threshold cross-over space between physical and virtual. My presence moves from disembodied to embodied by the mass of lines I stand inside; and once I step sideways I no longer occupy that moment of recording. For that moment, the membrane of virtual reality becomes something viscous and present across the surface skin of the virtual body.

By using a VR drawing program in this way, the boundary between user and the expanded canvas of the 3D void landscape is both illuminated and destabilised, and instead of the more

expected illustrative processes — gesturing in the empty air in front of you — this process brings alternative approaches to what VR controllers should be used for, and how, re-orienting the process for creating in VR. Through this performative process, the “here” of the body comes into being via this skin and controller contact, sensitising the user to this boundary; the body becomes established in contrast to the “there” of the apparently empty virtual environment. By then stepping aside, the traced form becomes part of the “there” of the world, my bodily “here-ness” present alongside it but once again visually disembodied.

Ahmed provides the provocation that she “want[s] us to think about how queer politics might involve disorientation” (2006: 158). She describes disorientation “as the ‘becoming oblique’ of the world, a becoming that is at once interior and exterior” (2006: 162). The processes of *Body Traces* deliberately disturb the Body Ownership Illusion (Slater et al. 2010) that is more usually a primary goal when developing embodied experiences for VR. Instead, it uses the act of tracing the body to create an experience that dislocates the visitor from their own sense of embodied self, a process of becoming oblique to one’s own virtual skin.

Figure 10: Alexandra Chalmers Braithwaite, *Body Traces*, 2021, Digital Drawing. Image courtesy of the artist.

These traces have been edited, moved about and repositioned in a new virtual environment separate to the one they were created in, as a collection or archive of moments of presence. They challenge the normative values of mimetic realism or humanistic avatar forms in VR, and instead show a form that is intimately tied to the physical contours of the body as an indexical trace, while also being partial, visceral and viscous.

Along with the previous three examples, this experiment demonstrates further strategies for expanding the visual and performative language of the body in VR, in which disembodiment and the performative processes of bringing embodied representations into being is a crucial strategy for queer worldbuilding.

Conclusion

Looking at these precedents and our own work we can see that the recording of bodies and performances — with photogrammetry, video recordings, and physical tracing — can be crucial queer strategies for ghostly presences in VR, all approaches that trouble the prioritising of mimetic “accuracy” of perfectly recreating a visual representation of a physical body. When working with these recordings as queer traces, each VR piece prioritises multiplicity, repetition and partiality, with numerous instances and layered moments coming together as a constellation of ephemeral glimpses of malleable embodied processes that suggest queer digital worlds.

Each of these works offers creative techniques and methods that challenge normative practices for VR design, using disorientation and disembodied presentness to create a sense of squishiness or troubled boundaries for a visitor to these worlds.

Our own work, such as *Body Traces*, takes up this line of thinking to experiment with the process of entering VR, manifesting the transition or threshold experience of moving from disembodied to embodied with traced forms. This performative aspect of tracing and “stepping into” a virtual body — and then stepping out of it — becomes a way to surface the invisible skin between the real and the virtual, encouraging a reconsideration and awareness

of the ongoing, performed nature of self in virtual worlds; instead of a pure transfer from one state to the other, selfhood becomes a messy, combinatory process of continual re-orientation.

Across these examples, we can see that queer-specific virtual reality projects take critical and specific approaches to embodiment and bodily representation. The body — or more accurately, bodies in the processes of embodying — are explored as a layered site for specific aesthetic and experiential strategies that reveal the queer qualities of Virtual Reality. Instead of having participants choose an avatar that looks as close to themselves as possible, visitors to these virtual worlds instead occupy environments invisibly, or partially, through experiences of disembodied presentness and ephemeral performed and malleable selves.

If “QueerOS seeks to identify digital interactions, both intentional and serendipitous, that lead to new pleasures and possibilities both online and off” (Barnett et al. 2016: 51), the works we have discussed here show the access points of those new pleasures and possibilities; pleasures not of transcending the body but of bringing the body into the nexus of physical and virtual, of continuing to occupy this virtual layering without ownership or mastery.

Instead of aiming to have a “seamless”, comfortable, and convincing virtual experience, there is instead a prioritisation of disorientation, even confusion, and blurring of boundaries, exploitation of scale shifts and repetition of performed traces that reveal the digital substrates of the worlds inhabited. The various recording and manifestation strategies bring queer sensibilities to the fore, destabilising the binary division of virtual and physical and revealing the contingent multiplicities of these queer virtual worlds.

Ahmed argues that “queer objects support proximity between those who are supposed to live on parallel lines, as points that should not meet. A queer object hence makes contact possible. Or, to be more precise, a queer object would have a surface that supports such contact. The contact is bodily, and it unsettles that line that divides spaces as worlds, thereby creating other kinds of connections where unexpected things can happen” (2006: 69). We would argue that these Virtual Reality experiences act as such queer objects, generate this supporting surface for artists and participants alike, disturbing the line between virtual and physical, body and background, disembodiment and embodiment, presence and absence.

These approaches reject the mainstream drive to re-create visual simulacra of “real” bodies, while also troubling the logic of avatars themselves as empty containers that the mind can leap into, out of the physical body. Instead, each of these works sits at the uneasy layering point of physical and virtual and uses this productive tension to create queer ways of being in Virtual Reality. By disturbing habitual bodily orientation with VR, these works use that embodiment to open other possibilities for our virtual worlds; they enact queer utopianism of Esteban Muñoz in that they are “about a desire for another way of being in both the world and time” (2009: 96).

Together the works discussed here, along with our framing of disembodied presentness as a queer approach to representation and embodiment in virtual experiences, exposes this digital medium as a malleable, unreal illusion, in much the same way that the stable sense of self becomes a performed illusion.

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End Notes

¹ Of particular note here is Meta/Facebook's foray into developing "the Metaverse" during the COVID pandemic, a moment in time when it might have seemed that conditions were ripe for such a technology, yet consumers rejected the banal vision offered, with Meta quietly shifting away from their dedication to this space in early 2023.

² For a more formal investigation of diverse queer uses of VR and virtual environments see (Freeman et al. 2022)

³ See also (Rubin 2018) for an in depth discussion of presence and its relationship to embodiment in virtual reality, in particular his discussion of the "rubber hand" experiment (Rubin 2018 pp.207-209).

⁴ There are other factors at play here, including a move towards realism in computer game graphics and real-time graphics for cinema and TV productions, the result of both a desire for verisimilitude and advances in technical capabilities.