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VNS Matrix-Pilled: Three Propositions for Revisiting 1990s Cyberfeminist Art Now

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Did you take the red pill or the blue pill? Or did you get black-pilled or crypto-pilled or Christ-pilled? Perhaps Gramsci-pilled? By the end of this article, you will be VNS Matrix-pilled. The red and blue pill reference comes, of course, from the Wachowski sisters' classic 1999 science fiction film *The Matrix,* the urtext of the cyber fin de siècle. Morpheus, a rebel leader fighting against robots who exploit humans through mind control, offers the two pills to Neo, the film's protagonist (and proxy for the audience):

> You take the blue pill, the story ends—you wake up in your bed and believe whatever you want to believe. You take the red pill, you stay in Wonderland, and I show you how deep the rabbit hole goes.[1]

In *The Matrix,* the red pill stands for the truth, an escape from the blinkers of false consciousness. In the post-Trump era, the suffix 'pilled' has become a pop cultural meme and joke.[2] To say you have been 'something-pilled' is to flag, often with some degree of irony, that you have opted into a new ideology. Right-wing message board users say they are 'red-pilled', meaning that they reject what they perceive as an elite global liberal democratic order. Leftist academics, enthused by the Marxist political philosopher Antonio Gramsci's theory of hegemony, might say that they are 'Gramsci-pilled'. Art historians may be Krauss-pilled or Groys-pilled or Steyerl-pilled. One gets the idea fairly quickly.

The pills of the 1990s are up for discussion again; so is the decade more generally. In 2015, the cultural studies scholar Jeremy Gilbert began posing the idea of 'the long 1990s', a way of framing a post-End of History period of technological advancement, cultural stagnation, and increasingly entrenched neoliberalism.[3] Technological advancement has come in the form of widespread personal computers and mobile phones connected to global networks, mostly run by a small group of transnational corporations. Cultural stagnation has come in the form of 'retromania', a fetish for rehashing tropes and forms of past eras.[4] Neoliberalism is

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a capacious term used to describe current global economic configurations and their philosophical justifications—the responses to the decline of advanced capitalist economies since the 1970s.[5] It is the ideological justification behind key features of the twenty-first century: decreased state responsibility, deregulated global financial markets, increased personal and state debt, rising global inequalities, and a culture that values individualism. Looking back at the 1990s from 2015, it seemed, according to Gilbert, that 'everything [had] changed, but nothing [had] changed'.[6] The primary point of difference was that the bloc made up of Silicon Valley executives and agents of finance capital (for which Gilbert's synecdoche is 'Big Tech and Wall Street') had become even more influential.[7]

The 1990s are when many of the forces that structure our lives today begin in earnest. Major world events of this century—the war on terror, the global financial crisis, and, more recently, the rise in populist nationalism, increasingly destructive climate change events, and the shocks of the COVID-19 pandemic—have destabilised some of the key cultural, economic, and political features that defined the era. In 2022, Alex Williams and Gilbert posited that we are entering a new epoch of mass global change: 'We are in a moment of grand realignment, where different cycles of world history have clicked together to produce a rare instant where more or less anything could be possible'.[8] Whether this hope for a more equitable society will be realised remains to be seen. However, their hypothesis that the long 1990s are over is worthy of interrogation. Has a new period begun? Looking back at the 1990s is one way of interpreting the powerful forces that shape the world today.

How is this relevant to the discipline of art history? For art historians researching artists of the 1990s, especially artists working at the then-nascent intersection of art and technology, Gilbert's proposition is a useful starting point. What defined the art of the 1990s ideologically and aesthetically? How can restaging the conceptual gambits and formal experiments of artists working at this time add historical context to current debates in the discipline about art's relationship to technology?

To consider these questions, I turn to the Australian cyberfeminist art collective VNS Matrix. VNS Matrix are a group of Australian artists who are now globally recognised and are considered among the most significant early net artists.[9] Their work explored the relationships between sex, gender, and technology, most famously in the viral poster *A Cyberfeminist Manifesto for the 21st Century* (1991). The 1990s is the period where the collective were at their most prolific and prominent. Here, I outline key biographical information about VNS Matrix and review the existing scholarly literature on the group. I contend that the group, like the decade, is overdue for comprehensive critical reassessment. Subsequently, as a starting point for this project, I set out three propositions for considering VNS Matrix's artworks in light of current discourses at the intersection of art, technology, and feminism. Firstly, VNS Matrix wanted to abolish the family computer—by which I mean change the patriarchal structures of attachment that shaped how women and queer people approach new technology. Secondly, VNS Matrix's playful exploration of queer cyborgian sexuality pre-empted the ways in which sex,

gender, and technology have become entwined in our 'pharmacopornographic' age.[10] Thirdly, feminism, art history, and the academy have come under increasing pressure to decolonise.[11] In the context of net art, these demands reveal the need to situate dematerialised digital artworks on the land that supports their production.

Who are VNS Matrix?

The VNS Matrix mythic origin story is that the group 'crawled out of the cyberswamp in the particularly hot summer of 1991'.[12] The 'cyberswamp' was Tartanya/Adelaide. VNS Matrix is made up of four collaborators: Virginia Barratt, Francesca di Rimini, Julianne Pierce, and Josephine Starrs. Barratt and di Rimini had both held the Executive Officer position at the Australian Network of Art and Technology (ANAT).[13] Pierce and Starrs met in a Masters Women's Studies course.[14] The group's formation was casual and organic: spending nights out together at clubs, creating queer pornography, hanging around writing poetic polemics, and experimenting with computers.[15] Members shared a collective interest in creating a feminist counterpoint to the patriarchal bent of the 1990s computer culture. At the time, technology had been marketed as a place of sterile masculinity and increased productivity. As Barratt describes:

> The machines were mostly in service to the patriarchal overlords of commerce, science, educational institutions. Access by women was limited and usually mediated by a male 'tech'. The idea of 'play' and 'creative production' or simply 'research' with no outcomes that were necessarily useful in terms of capitalism were anathema to the tech industries.[16]

VNS Matrix believed art could be an avenue to contest this state of affairs.[17] Barratt, di Rimini, Pierce, and Starrs drew together their disparate skills and interests and started making artwork together. The art did not engage with the obscured history of women coders and programmers (people like Ada Lovelace and the ENIAC coders) but largely consisted of astringent cyberfeminist texts responding to current conditions.[18] VNS Matrix's first and most influential artwork was *A Cyberfeminist Manifesto for the 21st Century* (1991), a baby-pink graphic poster displaying a block of writing framed by a decorative border of vagina-eye symbols. The text sets out the group's manifesto:

> We are the modern cunt
> positive anti reason
> unbounded unleashed unforgiving
> we see art with our cunt we make art with our cunt
> we believe in jouissance madness holiness and poetry
> we are the virus of the new world disorder
> rupturing the symbolic from within
> saboteurs of big daddy mainframe

> the clitoris is a direct line to the matrix
> the VNS MATRIX
> terminators of the moral codes
> mercenaries of slime
> go down on the altar of abjection
> probing the visceral temple we speak in tongues
> infiltrating disrupting disseminating
> corrupting the discourse
> we are the future cunt.[19]

The *Manifesto* went viral, and VNS Matrix's success compounded as the artists were propelled into a national and international exhibition and conference circuit. VNS Matrix showed as part of the International Symposium of Electronic Art (ISEA) at Helsinki in 1994 and at Naarm/Melbourne's Australian Centre for Contemporary Art (ACCA) in 1995, in addition to exhibiting at galleries in Adelaide, Sydney, Toronto, and San Francisco.[20] In 1996 they received $100,000 from the Australia Council for the Arts to develop a CD-ROM.[21] Members of the group became crucial voices in two key connected cyberfeminist projects in an internationally expanding discourse: the First Cyberfeminist International conference held in Kassel as part of the *documenta* 10 in 1997, and the Old Boys Network (OBN), a dispersed cyberfeminist collective who published the manifesto '100 Anti-Theses.'[22] During this period, VNS Matrix were part of a thriving global cyberfeminist movement, which also included artists like Linda Dement, Shu Lea Cheang, Cornelia Sollfrank, and Faith Wilding.

Towards the end of the 1990s, after nearly a decade working together, members of VNS Matrix began moving towards other projects. The group officially stopped working together as a collective in 1997.[23] After an extended hiatus, VNS Matrix reunited in 2014, and have since worked sporadically on collaborative projects, most notably with the video artists Soda_Jerk and the contemporary art publication *Runway Journal*.[24] Each member has also had prolific solo output.[25] These efforts are outside the scope of this article but are worthy of further attention.

The Matrix Library

Before looking at VNS Matrix's artworks in more detail, it is crucial to outline the group's relationship to the intellectual history of cyberfeminism and sketch recent developments in the discourse. 'Cyberfeminism' is a term that reached its zenith in the 1990s. Etymologically, 'cyber' has roots in the Greek *kybernētēs*, 'steersman', which was widely adopted in the 1980s and 1990s as a prefix to denote new technologies. For example, a popular portmanteau coined by the science fiction writer William Gibson in *Neuromancer* was 'cyberspace':

> A consensual hallucination experienced daily by billions of legitimate operators, in every nation… A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable

> complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding … [26]

'Cyber' was one of the first linguistic attempts to capture the affective experience of being online. In its broadest sense, feminism refers to the movement against gender-based oppression and exploitation, but its history has seen it take many different forms and political positions. Feminism is conventionally divided into temporal 'waves', with cyberfeminism falling around the 'third wave' of the 1980s and 1990s (to hark back to Gilbert's idea of the 'long 1990s', there is no consensus on when or even if the third wave ends).[27] Sociologist Jesse Daniels defines cyberfeminism as 'neither a single theory nor a feminist movement with a clearly articulated political agenda. Rather, it refers to a range of theories, debates, and practices about the relationship between gender and digital culture'.[28] As Mindy Seu writes,

> combining cyber and feminism was meant as an oxymoron or provocation, a critique of the cyberbabes and fembots that stocked the sci-fi landscapes of the 1980s. The term is self-reflexive: technology is not only the subject of cyberfeminism, but its means of transmission. It's all about feedback.[29]

The 1990s was a period of rapidly developing technological capacity and cultural shifts, and cyberfeminism was a quick response to sexist tropes being thoughtlessly multiplied. It was popular and seductive.

One text had a profound influence on cyberfeminist discourses. Donna Haraway's essay 'A Cyborg Manifesto' (1985) sets out key theoretic ambitions of cyberfeminism: 'an ironic political myth faithful to feminism, socialism, and materialism'.[30] There are a few central tenets of the manifesto relevant to VNS Matrix's work: that the binary distinctions that underpin Western, Judeo-Christian Enlightenment epistemologies should be rejected;[31] that theorisation will always be partial (Haraway advocates for a feminism fundamentally structured by the acknowledgment of difference);[32] and, crucially, that human bodies are in intersubjective relationships with the non-human (namely, technology and animals).[33] VNS Matrix's re-use of 'manifesto' and the 'cyber' prefix are obvious homages to Haraway. Another influential component of Haraway's manifesto was her engagement with French feminist theory of the era. 'French feminists like Luce Irigaray and Monique Wittig, for all their differences, know how to write the body; how to weave eroticism, cosmology, and politics from imagery of embodiment', Haraway writes.[34] VNS Matrix voraciously repurposed key words and idiosyncratic concepts from the French feminists.

Irigaray and Wittig, along with their contemporaries Julia Kristeva and Hélène Cixous, were loosely connected by a shared interest in Lacanian psychoanalysis and by attempts to show how writing and language shape gendered subjectivity. Their work features recurrent reference to tactile, corporeal processes, feminine morphology, and genitalia.[35] Irigaray's most well-known essay, 'This Sex Which is

Not One', blends erotic passages on feminine sexuality with a refutation of Freudian schema, and instead posits an alternate model of philosophical thinking defined by circuitous, touching, pluralistic relations.[36] This mode, based on the tactile qualities of 'female' sexual organs, is framed in opposition to the perceived singular, phallic logic of Freudian psychoanalysis.[37] In Wittig's *Les Guérillères*, a lesbian feminist fable, an Amazonian coterie commune with nature in a bucolic lakeside settlement, basking their genitals in the sun and reading to one another.[38] Cixous' contribution is the theory of '*écriture féminine*', or 'feminine writing': women must 'write about women and bring women to writing, from which they have been driven away as violently as from their bodies'.[39] Perhaps the most influential theory to emerge from this discourse is Kristeva's concept of abjection, which describes the process where the subject must disavow the liminal borderlands of the body—manifested in apparitions such as corpses, milk, blood, wounds, and congealment—in order to continue as a stable entity.[40] As VNS Matrix's *Manifesto* states, cyberfeminists 'go down on the altar of abjection/probing the visceral temple we speak in tongues/infiltrating disrupting disseminating/corrupting the discourse'. From Irigaray, Wittig, Kristeva, and Cixous, the artists developed a penchant for declarative written statements; focussed on haptic, sensory experiences over what they saw as disembodied rationalism; had a theoretical basis for their sexually explicit artworks; and privileged ideas of symbolic femininity and gender transgression that challenged patriarchal models of psychoanalytic thought.

Throughout the 1980s, Haraway and the French feminists' work gained currency among postgraduate students and artists such as VNS Matrix, resulting in an explosion of cyberfeminist discourse in the 1990s.[41] One of the most prominent figures in the cyberfeminist arena was Sadie Plant, a philosopher and media theorist who was briefly based at Warwick University, where she was associated with Nick Land and the now-notorious Cybernetic Culture Research Unit.[42] Her 1997 book *Zeroes + Ones* is a gonzo polemic on gender and technology.[43] At the time, it was framed as the cyber *Female Eunuch*. Plant feverishly argues against any 'quest for enlightenment which equates truth and reason with sight and light, the fear of anything wet, dark, and tactile, the prohibition on error, illusion, multiplicity and hallucination'.[44] Plant was not a direct influence on VNS Matrix—her book was published after most of their major works were completed. But taken together, their outputs signal the intellectual ambition, stylistic panache, and anti-logic word spew that characterised cyberfeminism in the 1990s.[45] The writer Claire L. Martin has memorably described the relationship between Plant and VNS Matrix as one of 'Steam Engine Time: that moment in history when a technology, or an idea, is so bound to happen that it's invented by several people at once'.[46]

The new millennium marked a period of slowing, but certainly not halting, interest in cyberfeminism. In 2020, American designer and educator Mindy Seu published the invaluable Cyberfeminism Index, an archive of all known cyberfeminist publications from 1990 to the present.[47] Looking over the Index, it is clear that there was a slowing in the production of cyberfeminist art projects and

academic literature in the first decade of the twenty-first century. But from the early 2010s onwards there was a bump of renewed interest—a new movement aimed to contest and build on the 'cyber' legacy. This is most evident in a major conference held in London in 2017 and two new publications published in the following years. The Post-Cyber Feminist International Conference, held at the Institute for Contemporary Art, paid homage to the First Cyberfeminist International Conference at *documenta* 10 in 1997 (attended by VNS Matrix) and gathered together scholars working on connections between art, gender, and technology.[48] Two 'post-cyber feminist' manifestos and one book were subsequently published by attendees: *The Xenofeminist Manifesto: A Politics for Alienation* (2018), by the collective Laboria Cuboniks; *Xenofeminism* (2018), by gender and cultural studies theorist Helen Hester; and *Glitch Feminism: a Manifesto* (2020), by curator Legacy Russell.[49]

These publications historicise and critique cyberfeminism, offering new perspectives. Cuboniks' xenofeminist ('XF') manifesto sought to reclaim rationalism—a rebuke to Plant and VNS Matrix's avowed anti-rationalism.[50] The Cuboniks collective offered a set of cyberfeminist propositions updated for the twenty-first century ('XF rejects illusion and melancholy as political inhibitors'; 'From the home to the body, the articulation of a proactive politics for biotechnical intervention and hormones presses'; 'If nature is unjust, change nature!' [51]). Hester is a member of Laboria Cuboniks. Her book, *Xenofeminism,* expanded on many of the provocations of the manifesto. VNS Matrix are mentioned as 'significant predecessors' of the xenofeminist project. However, the focus of the book is political science and healthcare justice—art is incidental. *Glitch Feminism* drew closely on Black feminist theory and work by Black contemporary artists. Russell critiqued the centrality of whiteness in many prominent cyberfeminist art projects and shared personal experiences growing up on the internet of the early twenty-first century.[52] The Cuboniks publication implicitly addresses VNS Matrix, Hester mentions the group briefly as inspirational predecessors, and Russell explicitly mentions them as an example of a cyberfeminist group who publicly critiqued racism.[53] All three texts make original contributions to post-cyber feminism, providing a crucial theoretical update. However, none make substantive analytical additions to art historical scholarship on VNS Matrix.

Despite VNS Matrix's centrality to cyberfeminist projects in the international art world—at *documenta* in Kassel, the New Museum in New York, and the ICA in London—the group have largely been overlooked in Australian art history. There is, for example, no VNS Matrix monograph. Three articles published in this journal make briefest mention of the group.[54] Comments on VNS Matrix in books and articles about art and digital culture primarily note them as one example among others typifying a particular era of net art.[55] The most comprehensive publication on the artists is the Australian feminist literary scholar Kay Schaffer's chapter 'The Game Girls of VNS Matrix: Challenging Gendered Identities in Cyberspace', in a history of sexualities reader.[56] Schaffer's article is useful but utilitarian, recounting the group's formation and discussing the mythic origins of their imagery.[57] There

are rich digital primary source materials recently made available for researchers interested in VNS Matrix. An archive published online in 2018 on an independent website holds an extensive collection of scanned documents, artwork scripts, flyers, publications, and essays on the group.[58] Additionally, a series of interviews conducted by the artist and media theorist Claire L. Evans are invaluable oral histories of the collective.[59] However, although these sources present historical information and celebrate the group's achievements, the majority of them do not offer substantial critical perspectives on VNS Matrix. In light of that lack, this is a timely juncture to offer new analysis of VNS Matrix's oeuvre and current significance.

Three Propositions for Looking at VNS Matrix's Art Today

1: Abolish the Family Computer

The experience of using a computer can be emotional, emotions are influenced by gendered social dynamics, computer culture often reflects patriarchal social structures, and this can and should be changed. These are key ideas in VNS Matrix's artworks. An electronic device can become imbued with the same 'structures of feeling' that shape flesh-and-blood life.[60] Or, as Helen Hester neatly puts it, 'technology is as social as society is technical'.[61] The media theorist Brenton J. Malin has tracked how media technology has influenced emotions (and vice versa) throughout the twentieth and twenty-first century, sketching out shifting, ideologically inflected responses to technologies like the telegraph or the Apple computer.[62] Malin's method involves tracking 'how a group of people envision themselves, their technologies, and their emotions, how this vision is communicated, and the consequences of this vision'.[63] This is an effective approach when considering the production, reception, and legacy of emotions in VNS Matrix's art of the 1990s.

VNS Matrix's most famous work, *A Cyberfeminist Manifesto for the 21st Century*, exemplifies how the artists envisioned their artistic project, what technologies were at hand to convey it, and the emotional dynamics they brought to artistic production. The outcome was a now-canonical piece of early net art. The poster was exhibited as a billboard in Adelaide (censors required that 'cunt' be altered, so 'kunst' was used instead), and displayed on the exterior wall of the Tin Sheds Gallery at the University of Sydney.[64] A British university student on holiday in Australia took a photo of the billboard and passed it on to Sadie Plant, who was writing *Zeroes + Ones* at the time.[65] Plant subsequently lectured on the *Manifesto* at Warwick University.[66] VNS Matrix also faxed the poster to the American writer Kathy Acker, media theorist Allucquére Rosanne 'Sandy' Stone, and the influential technology magazine *Wired*.[67] For cyberfeminists, these are notably analogue modes of image sharing, but VNS Matrix also disseminated the work via text chat rooms such as LambdaMOO. The *Manifesto* brought popular feminist theory—cyborg and French psychoanalytic—into early 1990s cyberspaces. Stylistically, the work is reminiscent of Jenny Holzer and Barbara Kruger's text-based artworks of the 1970s and '80s, which critiqued the affective excesses of American

consumerism in stark sans serif fonts. VNS Matrix added futuristic graphic elements and critiqued the excesses of hypermasculine technocultures.

The artists argued that they were pushing back against dominant cultural narratives of technology in the early 1990s. As a 1992 profile stated, VNS Matrix 'take on the testosterone zone of Gameboy teen cult … No keyboard cowboys and jerking off and featureless chrome silver suzi fem-bots here'.[68] At the time, the artists saw Nintendo's personal gaming device Game Boy (and computers more generally) as being marketed as a new kind of toy truck or model railway—for boys' play only. Meanwhile, representations of women and technology were often eroticised, a dynamic encapsulated in a 'fem-bot' archetype. In the Australian market, following the US market, the computer had transitioned from the 'intimidating "giant brain" of the 1960s down to the friendly "information appliance" of the 1990s'.[69] But VNS Matrix wanted more from new technology than gendered toys and productive business tools. Their *Manifesto* called for readers to be 'saboteurs of the big daddy mainframe'.

What does it actually mean to be a saboteur of the big daddy mainframe? A mainframe is a computer with the capacity to undertake major processing and storage tasks. Large organisations use mainframes; they are the industrial opposite of a personal laptop. VNS Matrix's use of 'mainframe' positions the word as a kind of technological means of production. 'Big daddy' is an ironic phrase referring to symbolic paternal authority—it is a jumble of psychoanalytic language that suggests Freud's Oedipus complex, the pop psychology term 'daddy issues', and Lacan's 'big Other'.[70] As such, the 'big daddy mainframe' conflates the psychic structure of the patriarchal nuclear family unit with the physical infrastructure of the industrial computer. Saboteur is fairly self-explanatory; VNS Matrix wanted to incite their followers to infiltrate and take control of the big daddy mainframe. In practice, this seems to have been less about literally destroying the technological apparatus than breaking down the cultural illusion of masculine confidence and technological acumen that had begun to develop in both hacker and commercial cyber-discourses. *A Cyberfeminist Manifesto for the 21st Century* is a piece of feminist agitprop. In much the same way that middle-class second wave feminist discourses had urged housewives to defy patriarchal expectations and leave the domestic sphere, cyberfeminists urged women to get onto the computer. As Barratt said at the time, the artists' aim was to 'whip up some enthusiasm, and maybe a little hysteria, amongst women about actually using the technologies'.[71] The word choice is telling: 'hysteria' is a feminist emotional bugbear, criticised for its long-standing association with 'unstable females' (its etymological origins are in the Greek word for womb).[72] Barratt's deployment of the pathologised emotion in the context of using new technologies was a self-conscious provocation. Instead of nerdy businessmen utilising IBM computers to calculate profit margins, VNS Matrix wanted to conjure the image of wailing women purging their emotions through keyboards. The idea of abolishing the family computer is not the destruction of the personal Apple Mac a housewife does the family budget on; instead,

VNS Matrix created art that aimed to undermine what they saw as the tyrannical emotional dynamics of the patriarchal nuclear family unit.

2: Have Sex in the Matrix

Another key theme of VNS Matrix's 1990s artworks is the mediation of queer eroticism through new technology. While the artists rejected the 'fem-bot' archetype, they were firmly on the sex positive side of the feminist sex wars.[73] VNS Matrix put key debates on porn, sex, and agency into artistic practice in scripted games, manifestos, and video art works. A clear legacy can be drawn between VNS Matrix's ideas of sex, gender, and technology and current discourses in gender and cultural studies. In particular, ideas in the artists' work recur in xenofeminist commitments to anti-naturalism and Paul Preciado's influential concept of the pharmacopornographic era.[74] The xenofeminist anti-naturalist position challenges the primacy and legitimacy of the natural body, critiquing Earth Mother ecofeminist arguments that it is desirable for the body to be free from technological intervention.[75] This position is most compellingly outlined by Laboria Cuboniks member Helen Hester, who updated Shulamith Firestone's technofeminist *Dialectic of Sex* in her 2018 book *Xenofeminism:* 'Biology is not destiny, because biology itself can be technologically transformed, and should be transformed in the pursuit of reproductive justice and the progressive transformation of gender'.[76] A prominent example of this ethos put into practice is Preciado's auto-theory book, *Testo Junkie: Sex, Drugs, and Biopolitics in the Pharmacopornographic Era* (2008), published in English in 2013. Preciado's near-unpronounceable titular neologism refers to 'the processes of a biomolecular (pharmaco) and semiotic-technical (pornographic) government of sexual subjectivity—of which "the Pill" and *Playboy* are two paradigmatic offspring'.[77] According to Preciado, modern bodies and sexuality are policed and regulated by powerful pharmacological and pornographic regimes. Rather than engaging in an ultimately futile rejection of this, he argues for a queer, hedonistic response. As a form of sexual experimentation and regime resistance, the writer begins taking the topical pharmaceutical TestoGel. He writes:

> I'm not taking testosterone to change myself into a man or as a physical strategy of transsexualism; I take it to foil what society wanted to make of me, so that I can write, fuck, feel a form of pleasure that is postpornographic, add a molecular prostheses to my low-tech transgender identity.[78]

Testo Junkie is transgressive and beloved for Preciado's performance-art-like approach to body and gender modification; he is a Derridean, transmasculine version of the infamous French body modification artist Orlan. A similar spirit can be seen in VNS Matrix's artworks of nearly twenty years earlier.

VNS Matrix's members were deeply interested in how queer sexuality might be expressed through new technologies, both external and coterminous with the

body. This is most evident in their video artwork *Beg and Gen in the Bonding Booth* (1993), which anticipated Hester's and Preciado's vernaculars of transgression, provocation, and biohacking. *Beg and Gen in the Bonding Booth* was a key component of the multi-part installation *ALL NEW GEN,* shown at the Australian Centre for Contemporary Art in Naarm/Melbourne in 1995. *ALL NEW GEN* is a project that took multiple forms, initially exhibited as a series of lightboxes and sound works at the Third International Symposium on Electronic Art (TISEA) in Sydney in 1992 before being reconstituted for subsequent exhibitions and conferences.[79] The ACCA version of *ALL NEW GEN* was comprised of a scripted interactive game, a *Manifesto* billboard, a soundscape, an erotic video, and a lounge-like screening room.[80] The conceit of the text-based computer game is that the player, guided by 'DNA Sluts', must 'Destroy the Big Daddy Mainframe' and his minion 'Circuit Boy' in order to reach 'data liberation'.[81] Visitors to the exhibition could play the game on a computer installed in a Tardis-like decorative stand. Walking past the *Manifesto* billboard, visitors could then enter the 'Bonding Booth' screening room where they could watch a lo-fi 5:35 minute VHS erotic film featuring Barratt and a friend. The film was soundtracked by a voice-warped cyborg reading speculative fantasy fiction. 'In the bonding booth, I'm psyching for some hard downtime with a free radical. My pathways are open', the cyborg intones. 'My receptors are buzzing. I check my parameters'.[82]

Beg and Gen in the Bonding Booth blends soft pornographic aesthetics with cyberlingo to present a vision of sex in an advanced, imagined future-pharmacopornographic era. The narrative of the voice-over is driven by the speaker taking on technological bodily modifications to engage in a digital sexual encounter with an artificially intelligent entity. 'I construct an appropriate bio/psych system for the session. I image a muscular hybrid, a cold warm, wet dry invertebrate. I apply the filters smartskin and erotomania … I lock into the morph'. The video does not depict sex merely documented or aided by new technology, but rather sex entwined with and made possible by new (imagined) technology. Rather than subscribing to a simple binary of dehumanised technosex (fem-bots, online porn) or normative, 'natural' sex (in extreme, a non-medicated heterosexual couple having procreative sex), the artists present a third option. Queer subjectivity extends to technological sexual encounters. [83]

The group's speculative art-porn hypotheses would become more and more realistic as gender and body-modifying technologies entered the twenty-first century mainstream. Consider VNS Matrix's description of technical preparations in the *Bonding Booth* video: 'I apply the filters smartskin and erotomania', the cyborg proclaims. The filters—bodily modifications—take place in a speculative simulation. But the scenario seems remarkably prescient when considered next to Preciado's eroticised description of applying TestoGel at the genesis of a techno-sexual encounter:

> I rip into the aluminum-coated paper; out comes a thin, cold, transparent gel that disappears immediately into the skin of my left shoulder. A cool vapor remains, like a memory of icy breath, the kiss of a snowwoman.[84]

The skin absorbs the technological addendum. The body is neither wholly natural, nor wholly technological. Donna Haraway's famous 1985 proclamation that she would 'rather be a cyborg than a goddess' becomes more and more feasible every day.[85] Now, artworks examining these possibilities are at the centre of the international contemporary art world (for example, Preciado's curation of Shu Lea Cheang's Taiwan pavilion in the 2019 Venice Biennale, wherein the artist created a panopticon modelled on Hugh Hefner's control room in the Playboy Mansion). But in the 1990s, these ideas were countercultural; VNS Matrix's cyberfeminist art was a domain where the potential of desiring cyborg bodies could be explored outside of the legitimising discourses of medicine and productivity. *Beg and Gen in the Bonding Booth* is a lo-fi fantasy of a sexual future that, as Preciado, Cheang, and artists like Wu Tsang, Sin Wai Kin, and Eric Pussyboy show us, is now starting to arrive.

3: Cyberspace Starts on Indigenous Land

Indigenous and colonised peoples continue to argue for postcolonial and decolonial critiques of feminism, art history, and the academy in general.[86] In the twentieth century, postcolonial theory emerged from decolonisation, the political movement forcing the withdrawal of colonial powers from colonised territories.[87] Today, as Indigenous writer Tristen Harwood has proposed, decolonisation can also refer to a practice that 'interrogates and decentres dominant settler-colonial and Western epistemologies, opening space for subjugated ways of knowing and being'.[88] In the context of net art, one outcome of this practice is the acknowledgement that dematerialised digital art production has a material basis. This framing is related to theorisations of technomaterialism. Hester argues that technomaterialism seeks to anchor 'that which has been frequently mischaracterized as free-floating and disembodied within its infrastructural requirements and within the obstinate physicality of its users and producers (including those workers engaged in repetitive and poorly paid labour on electronics assembly lines around the world)'.[89] The digital must be seen as inextricable from the material, which includes hardware, labour, and land. For art historians looking at VNS Matrix, land is a crucial element. VNS Matrix's art practice began in the settler-colonial state of South Australia, not the amorphous non-space of the international net art world of the 1990s.[90] There is a long lineage of scientific experimentation in South Australia, and narratives that track the genesis and impact of VNS Matrix are deepened by knowledge of this crucial context.

South Australia was never a convict colony. Founded in 1836, the state prided itself from the outset on being a place of progressive liberal humanism and international connections—a cultivated reputation contingent on the dispossession and destruction of Indigenous land.[91] International connections included relationships with other state actors conducting technological experimentation. These networked activities were in large part due by South Australia's status as a colonial ally geographically far from the eyes of the metropoles. During the twentieth century, the United Kingdom and the United States militaries worked in South Australia

funding Cold War and post-war experiments and weapons testing (secretive machinations of defence departments are often at the forefront of new technological developments).[92] These experiments were supported by Australian state and federal governments and violently disregarded Indigenous peoples' ongoing residence on land considered for all intents and purposes to be *terra nullius*. This dynamic is most evident in the nuclear testing undertaken in the late 1950s and 1960s at the Woomera Prohibited Area on Anangu Pitjantjatjara Yankunytjatjara lands.[93] Testing had catastrophic effects on the lives of people living in the area, as artists Yhonnie Scarce and Lin Onus, among others, have shown.[94] Connections continued over the decades. In 1967, the first Australian satellite was launched by the Weapons Research Establishment Satellite (WRESAT) project, a collaboration between the United Kingdom–Australia Weapons Research Establishment (WRE) and the United States Department of Defense.[95] Scientists at the University of Adelaide built the satellite from a spare missile shipped by the US and launched it from Woomera.

The Australian Network of Art and Technology (ANAT) began in Tartanya/Adelaide in this context.[96] The organisation started as a pilot project of the Experimental Art Foundation and the South Australian Ministry of Technology in 1985, aided by funding from the Commonwealth Employment Scheme. In 1988, the project received Australia Council funding to run more substantive operations.[97] The organisation became a hub of experimental artistic activity, connecting artists with computers and perhaps more significantly, with other artists. VNS Matrix members Virginia Barratt and Francesca da Rimini were Executive Officers at ANAT, and VNS Matrix drew on the organisation's technical resources.[98] As Barratt recounts,

> Francesca had been involved in a project of Australian Network for Art and Technology to connect artists with machines, facilitating artist access to institutions and their resources, specifically computers and software.
>
> This kind of access was unprecedented, since computers were not personal and certainly not ubiquitous.[99]

It would be overly simplistic to link VNS Matrix's success solely to the access to technology that ANAT provided, but ANAT undeniably played a role in birthing VNS Matrix. And there are long-term connections between ANAT and colonial infrastructural entities, including state organisations, state funding, and universities. The relationships between these institutions did, in some small way, foment the conditions that allowed VNS Matrix to begin making artworks together in Tartanya/Adelaide in the 1990s. *A Cyberfeminist Manifesto for the 21st Century* would proliferate globally, but it is crucial to acknowledge that the artwork was initially coded on Kaurna land. The colonial history of technological development in South Australia is inseparable from the net art history of VNS Matrix.

VNS Matrix have made public statements that demonstrate an engagement with the settler-colonial context of their art practice. Their website features an Acknowledgement of Country. The group also sells merchandise and donates 80% of all profits to 'anti-racist and aboriginal [sic] deaths in custody organisations and funds'.[100] 'In post-white-feminist times', the artists say, 'VNS works to ABOLISH WHITE SUPREMACY, BURN DOWN BIG DADDY MAINFRAME and PAY THE RENT'.[101] But recounting gestures from the artists does not fulfil the same role that a substantive narrative of the context of the group's formation can. Writing a technomaterialist history of net art entails asking questions that elicit more specific details than an Acknowledgement of Country can provide. Who had access to new technology? What was the technology? Who paid for it? Where were they? What were the effects of uneven distribution? This brief recount of some key moments in the South Australian history of technological experimentation relative to VNS Matrix offers one example of the challenges that technomaterialism poses for post-1990s historians of net art. Technomaterialist frameworks ask historians to reckon with the relationships between new technology, the settler-colonial state, and its material infrastructures, conditions that fundamentally underpin digital artistic production.

Conclusion

The long 1990s are over. Everything has changed; nothing has changed. The digital pirates and hackers of *The Matrix* era are now historical relics. Many of the speculative hopes of VNS Matrix and their milieu either petered out or remain in the esoteric hobby-zone of art school academia. Silicon Valley seemed like a fiendishly profit-focussed boy's club at the time *A Cyberfeminist Manifesto* came out. Now, the phrase denotes a hegemonic global order of technological power and finance capital. But if Williams and Gilbert are to be believed (and I hope they are), we are at critical juncture; now is the time to 'win back' the world.[102] Resistance to Big Tech and Wall Street is growing. As such, looking back to the ambition and energy—and failed utopian gambits—of the original cyberfeminists can provide critical insight. As I have argued, VNS Matrix's artworks offer three possibilities for considering how artists can challenge dominant narratives of technology, sex, and gender. In the VNS Matrix schema, networked life should not be seen as emotionally neutral; rather, it is a site of gendered structures of feeling. Sex will be increasingly technologically mediated, but feminists need not approach this development with fear. In our pharmacopornographic era, art can be an arena for people to seek out new pleasures and new kinds of bodily agency. Net art is becoming increasingly legitimised by scholarship and institutions, but decolonial critiques of art history mean that a technomaterialist approach is crucial for rigorous analysis of net art works; all that is digital begins in the physical. Whose land is the computer hardware on? Ultimately, the aesthetics of VNS Matrix's art might seem as archaic as a candy-coloured plastic iMac desktop computer, but the ideas the group were thinking through remain urgent.

Acknowledgments

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Notes

1. *The Matrix*, directed by Lana and Lily Wachowski, Los Angeles: Village Roadshow Pictures, Warner Bros. Pictures, Silver Pictures, 1999, https://www.stan.com.au/watch/the-matrix-1999.
2. Angela Nagle, *Kill All Normies: The Online Culture Wars from Tumblr and 4chan to the Alt-Right and Trump* (Winchester: Zer0 Books, 2017).
3. Gilbert is riffing on Giovanni Arrighi's *The Long Twentieth Century: Money, Power, and the Origins of Our Times* (London: Verso, 1994); Jeremy Gilbert, 'Captive Creativity: Breaking Free from the Long '90s,' paper presented at *Capitalism, Culture, and Media* conference, University of Leeds, 7–8 September 2015. The phrase the 'end of history' refers to political philosopher Francis Fukuyama's proposition that capitalist democracy had become the de facto hegemonic global political order after the fall of the Soviet Union. Francis Fukuyama, 'The End of History?', *The National Interest*, no. 16 (1989): 3–18.
4. Simon Reynolds, *Retromania: Pop Culture's Addiction to Its Own Past* (New York: Faber and Faber, 2011); Jason Farago, 'The 1990s Never Ended', *BBC*, 5 February 2015, https://www.bbc.com/culture/article/20150205-the-1990s-never-ended.
5. Annie McClanahan, 'Serious Crises: Rethinking the Neoliberal Subject', *Boundary 2* 46, no. 1 (2019): 106–107.
6. Gilbert, 'Captive Creativity'.
7. Alex Williams and Jeremy Gilbert, *Hegemony Now: How Big Tech and Wall Street Won the World (And How We Win It Back)* (London: Verso, 2022), 9.
8. Ibid., 7.
9. Net art today is best defined by the Rhizome Net Art Anthology project: 'Net Art Anthology aims to represent net art as an expansive, hybrid set of artistic practices that overlap with many media and disciplines. To accommodate this diversity of practice, Rhizome has defined "net art" as "art that acts on the network, or is acted on by it". Rhizome prefers the term "net art" because it has been used more widely by artists than "internet art", which is more commonly used by institutions, or "net.art", which usually evokes a specific mid-90s movement. The informality of the term "net art" is also appropriate not only to the critical use of the web as an artistic medium, but also informal practices such as selfies and Twitter poems'. Rhizome and the New Museum, 'Net Art Anthology', June 2019, https://anthology.rhizome.org/.
10. Paul B. Preciado, *Testo Junkie: Sex, Drugs, and Biopolitics in the Pharmacopornographic Era*, trans. Bruce Benderson (New York: The Feminist Press at CUNY, 2013).
11. For examples, see Aileen Moreton-Robinson, *Talkin' up to the White Woman: Aboriginal Women and Feminism* (Brisbane: University of Queensland Press, 2000); National Gallery of Australia, 'Annual Lecture: Decolonise Your Feminism', recording of streamed virtual presentation as part of *Know My Name* conference, Thursday 12 November, 2020, video, 1:29:23; and Catherine Grant and Dorothy Price, 'Decolonizing Art History', *Art History* 43, no. 1 (2020): 8–66, doi:10.1111/1467-8365.12490.
12. VNS Matrix, 'The Artists', VNS Matrix Archive, https://vnsmatrix.net/the-artists (accessed 18 September 2022).
13. Melinda Rackham, 'Manifesto' (2018), VNS Matrix Archive, https://vnsmatrix.net/essays/manifesto#fn-cite-3 (accessed 28 January 2021).
14. Kay Schaffer, 'The Game Girls of VNS Matrix: Challenging Gendered Identities in Cyberspace', in *Sexualities in History: A Reader*, ed. Barry Reay and Kim M. Philips (Abingdon: Routledge, 2002), 439.
15. Claire L. Evans, 'An Oral History of the First Cyberfeminists', *VICE*, 12 December 2014, https://www.vice.com/en/article/z4mqa8/an-oral-history-of-the-first-cyberfeminists-vns-matrix.
16. Ibid.
17. Schaffer, 'The Game Girls of VNS Matrix', 434–452.
18. For a detailed history of women at the coalface of technological development, see Claire L. Evans, *Broad Band: The Untold Story of the Women Who Made the Internet* (New York: Penguin, 2018).
19. VNS Matrix, *A Cyberfeminist Manifesto for the 21st Century*, 1991, digital image, dimensions variable, https://vnsmatrix.net/wordpress/wp-content/uploads/cyberfeminist-manifesto-vns-matrix-english-sphere-final-bleed-artwork.jpg.
20. Schaffer, 'The Game Girls of VNS Matrix', 438.
21. Ibid., 439; VNS Matrix, 'Bad Code', VNS Matrix Archive, https://vnsmatrix.net/projects/bad-code (accessed 2 February 2021).
22. Cornelia Sollfrank, *First Cyberfeminist International* (Hamburg: OBN, 1998), 1, 89.
23. Barratt left in 1996. Da Rimini, Pierce, and Starrs officially disbanded in 1997. Melinda Rackham, 'Game-Girl' (2018), VNS Matrix, https://vnsmatrix.net/essays/game-girl (accessed 2 February 2021).

24. VNS Matrix, 'Timeline', VNS Matrix, https://vnsmatrix.net/#timeline (accessed 9 February 2021).
25. VNS Matrix, 'The Artists'.
26. William Gibson, *Neuromancer* (New York: Penguin, 2003), 49.
27. Mary Holmes, 'What are the Politics of Gender?', in *What is Gender? Sociological Approaches* (Los Angeles: Sage, 2007), 110.
28. Jessie Daniels, 'Rethinking Cyberfeminism(s): Race, Gender, and Embodiment', *Women's Studies Quarterly* 37, no. 1/2 (2009): 102.
29. Mindy Seu, 'About', Cyberfeminism Index, first published online in 2020, compiled by Mindy Seu (continually updated), https://cyberfeminismindex.com/.
30. Donna Haraway, 'A Cyborg Manifesto', *Manifestly Haraway* (Minneapolis: University of Minnesota Press, 2016), 3.
31. Haraway lists 'mind and body, animal and human, organism and machine, public and private, nature and culture, men and women, primitive and civilised'. Haraway, 'A Cyborg Manifesto', 10–11.
32. Ibid., 15.
33. Ibid., 5.
34. Ibid., 52.
35. One of the major sticking points of this discourse in contemporary feminist debates is whether the invocation of binary, biological sexual difference is natural or essentialist or, as is argued by most participants, operating on a symbolic level.
36. Luce Irigaray, *This Sex Which Is Not One*, trans. Catherine Porter with Carolyn Burke (New York: Cornell University Press, 1985), 28.
37. Ibid., 24.
38. Monique Wittig, *Les Guérillères*, trans. David Le Vay (Urbana: University of Illinois Press, 2007).
39. Hélène Cixous, 'The Laugh of the Medusa', in *New French Feminisms: An Anthology*, eds. Elaine Marks and Isabelle De Courtivron (New York: Schocken Books, 1981), 245.
40. Julia Kristeva, *Powers of Horror: An Essay on Abjection* (New York: Columbia University Press, 1982), 45.
41. See the Cyberfeminism Index, https://cyberfeminismindex.com/.
42. The Cybernetic Culture Research Unit (CCRU) was a renegade organisation associated with Plant and the accelerationist philosopher Nick Land. See CCRU, *Writings: 1997–2003* (Falmouth: Urbanomic, 2017); Simon Reynolds, 'Renegade Academic: The Cybernetic Culture Research Unit', *Energy Flash*, 3 November 2009, https://energyflashbysimonreynolds.blogspot.com/2009/11/renegade-academia-cybernetic-culture.html.
43. Sadie Plant, *Zeros + Ones: Digital Women and the New Technoculture* (London: Fourth Estate Publishing, 1997).
44. Ibid., 178.
45. It is also worth wondering what Sadie Plant has come to think of cyberfeminism in intervening years—she subsequently retreated from public intellectual life.
46. Claire L. Evans, 'Feminist Worldbuilding in the Australian Cyberswamp', *Rhizome*, 27 October 2016, https://rhizome.org/editorial/2016/oct/27/cyberfeminist-worldbuilding/.
47. Along with the digital archive https://cyberfeminismindex.com/ there is also a book version of this project: *Cyberfeminism Index*, ed. Mindy Seu (Los Angeles: Inventory Press, 2023).
48. Post-Cyber Feminist International Conference program, Institute for Contemporary Art (London, 2017), https://archive.ica.art/sites/default/files/ICA%20PCFI%20PDF.pdf; Helen Hester, 'After the Future: *n* Hypotheses of Post-Cyber Feminism' (2017), *Res*, https://beingres.org/2017/06/30/afterthefuture-helenhester/ (accessed 15 December 2022).
49. Laboria Cuboniks, *The Xenofeminist Manifesto: A Politics for Alienation* (London: Verso Trade, 2018); Helen Hester, *Xenofeminism* (Cambridge: Polity Press, 2018); Legacy Russell, *Glitch Feminism: A Manifesto* (New York: Verso, 2020).
50. Cuboniks, *The Xenofeminist Manifesto*, 13.
51. Ibid., 23, 47, 53.
52. Russell, *Glitch Feminism*.
53. Hester, *Xenofeminism*, 151. Russell unfortunately misspells 'VNS' as 'VNX'. Russell, *Glitch Feminism*, 26.
54. Anna Munster, 'Low-Res Bleed: Congealed Affect and Digital Aesthetics', *Australian and New Zealand Journal of Art* 3, no. 1 (2002): 82–83, doi:10.1080/14434318.2002.11432706; Justin Clemens, 'Virtually Anywhere Real-Time New-Old Avatar-Human Entertainment Art: Cao Fei Online', *Australian and New Zealand Journal of Art* 11, no. 1 (2011): 131, doi:10.1080/14434318.2011.11432620; Louise R. Mayhew, 'Collaboration and Feminism: A Twenty-First Century Renascence', *Australian and New Zealand Journal of Art* 15, no. 2 (2015): 225, doi:10.1080/14434318.2015.1089821.
55. See Melissa Gronlund, *Contemporary Art and Digital Culture* (New York: Routledge, 2017), 107–108; David Burrows and Simon O'Sullivan, *Fictioning: The Myth-Functions of Contemporary Art and Philosophy* (Edinburgh: Edinburgh University Press, 2019), 426–427; and Alex Galloway, 'A Report on Cyberfeminism: Sadie Plant relative to VNS Matrix', *Switch* 9, 14 June 1998, http://switch.sjsu.edu/archive/nextswitch/switch_engine/front/front.php%3Fartc=225.html.
56. Schaffer, 'The Game Girls of VNS Matrix', 434–452.
57. Ibid., 438.
58. VNS Matrix, 'Projects', VNS Matrix, https://vnsmatrix.net/projects (accessed 31 March 2023).
59. Evans, 'An Oral History of the First Cyberfeminists'; Evans, 'Feminist Worldbuilding in the Australian Cyberswamp'; Claire L. Evans, '"We Are The Future Cunt": Cyberfeminism in the '90s, *VICE*, 21 November 2014, https://www.vice.com/en/article/4x37gb/we-are-the-future-cunt-cyberfeminism-in-the-90s.

60. Raymond Williams, 'Structures of Feeling', in *Structures of Feeling: Affectivity and the Study of Culture,* eds. Devika Sharma and Frederik Tygstrup (Berlin: De Gruyter, 2015), 20–26.
61. Hester, *Xenofeminism*, 11.
62. Brenton J. Malin, *Feeling Mediated: A History of Media Technology and Emotion in America* (New York: New York University Press, 2014), 32.
63. Ibid., 32.
64. Schaffer, 'The Game Girls of VNS Matrix', 440; Burrows and O'Sullivan, *Fictioning*, 427.
65. Evans, 'Feminist Worldbuilding in the Australian Cyberswamp'.
66. Evans, 'An Oral History of the First Cyber-feminists'.
67. Evans, 'Feminist Worldbuilding in the Australian Cyberswamp'.
68. Lisa Pears, 'Forget Barbie, Let's Slime', *Temper* 1 (1992): 30.
69. J. Abbate, 'Getting Small: A Short History of the Personal Computer', *Proceedings of the IEEE* 87, no. 9 (1999): 1695–98, doi:10.1109/5.784256.
70. Adrian Johnston, 'Jacques Lacan', *The Stanford Encyclopedia of Philosophy* (Spring 2023 Edition), ed. Edward N. Zalta & Uri Nodelman, https://plato.stanford.edu/archives/spr2023/entries/lacan/; Emily Zakin, 'Psychoanalytic Feminism', *The Stanford Encyclopedia of Philosophy* (Summer 2011 Edition), ed. Edward N. Zalta, https://plato.stanford.edu/archives/sum2011/entries/feminism-psychoanalysis/.
71. Lisa Pears, 'Virginia Barratt', *Temper* 1 (1992): 23.
72. Ilza Veith, *Hysteria: The History of a Disease* (Chicago: University of Chicago Press, 1965), ix.
73. The term 'sex wars' refers to a constellation of 1980s debates, mainly in the US, on feminist perspectives on sex and sexuality. The key topics were porn, sex work, BDSM practices, and the nature of women's agency. For recent scholarship problematising overly simplistic narratives of the sex wars, see Lorna Norman Bracewell, 'Beyond Barnard: Liberalism, Antipornography Feminism, and the Sex Wars', *Signs: Journal of Women in Culture and Society* 42, no. 1 (2016): 23–48; and Amia Srinavasan, *The Right to Sex: Feminism in the Twenty-First Century* (New York: Farrar, Straus and Giroux, 2021), 63–76.
74. Preciado, *Testo Junkie.*
75. Hester, *Xenofeminism*, 37–38.
76. Ibid., 22.
77. Preciado, *Testo Junkie*, 31.
78. Ibid., 14.
79. A full list of the work's various iterations is compiled on the VNS Matrix archive. VNS Matrix, 'ALL NEW GEN', VNS Matrix Archive, https://vnsmatrix.net/projects/all-new-gen (, accessed 18 September 2020); Alessio Cavallaro, Ross Harley, Linda Wallace, and McKenzie Wark, *Cultural Diversity in the Global Village: The Third International Symposium on Electronic Art* (Sydney: Australian National Institute for Art and Technology, 1992), 67.
80. Schaffer, 'The Game Girls of VNS Matrix', 434.
81. VNS Matrix, 'ALL NEW GEN: The Rules of the Game' (1992), VNS Matrix Archive, https://vnsmatrix.net/wordpress/wp-content/uploads/all-new-gen-vns-matrix-1992-contested-zone-rules-of-the-game-final-version-text.pdf (accessed 22 September 2020).
82. VNS Matrix, 'Bonding Booth script' (1992), VNS Matrix Archive, https://vnsmatrix.net/wordpress/wp-content/uploads/all-new-gen-vns-matrix-1992-bonding-booth-video-script-final-version-text.pdf (accessed 27 February 2023).
83. VNS Matrix's approach is reminiscent of twenty-first century research into 'post-pornography'. Astrid Lorange and Tim Gregory have argued that post-pornography is 'characterised by three aspects—the denaturalising of sex, the de-centring of the spectator, and the recognition of media and technology as inseparable from sex'. Tim Gregory and Astrid Lorange, 'Teaching Post-Pornography', *Cultural Studies Review* 24, no. 1 (2018): 138, http://dx.doi.org/10.5130/csr.v24i1.5303.
84. Preciado, *Testo Junkie,* 16.
85. Haraway, 'A Cyborg Manifesto', 67.
86. See Moreton-Robinson, *Talkin' up to the White Woman*; National Gallery of Australia, 'Annual Lecture: Decolonise Your Feminism'; Grant and Price, 'Decolonizing Art History'.
87. Gurminder K. Bhambra, 'Postcolonial and Decolonial Dialogues', *Postcolonial Studies* 17, no. 2 (2014): 118, doi: 10.1080/13688790.2014.966414.
88. Harwood is a descendent of Numbulwar where the Rose River opens onto the Gulf of Carpentaria. Tristen Harwood, 'Love and Decolonisation in actu', *un Magazine* 10, no. 2 (2016), 5.
89. Hester, *Xenofeminism,* 8.
90. Cyberfeminism has largely taken place in the West, in particular in the US and Europe. Mindy Seu, 'About', Cyberfeminism Index, https://cyberfeminismindex.com/about/.
91. Robert Foster and Amanda Nettelbeck, *Out of the Silence: The History and Memory of South Australia's Frontier Wars* (Adelaide: Wakefield Press, 2012), 1.
92. For an extended discussion of connections between military operations, statecraft, and new technology, see the chapter 'Computation' in James Bridle, *New Dark Age: Technology, Knowledge and the End of the Future* (London: Verso, 2018), 34–77.
93. Elizabeth Tynan, *Atomic Thunder: The Maralinga Story* (Sydney: NewSouth, 2016), 6.
94. Lin Onus, *Maralinga,* 1990, fibreglass, synthetic polymer paint, acrylic and paper stickers 163.0 x 56.0 x 62.0 cm, Art Gallery of Western Australia, Perth; Yhonnie Scarce, *Thunder Raining Poison*, 2015, glass assemblages, glass, wire, metal armature, 500 cm (dimensions variable), National Gallery of Australia, Canberra.
95. 'ALL SYSTEMS GO… Wresat Circles the Earth', *The Canberra Times,* November 39, 1967, https://trove.nla.gov.au/newspaper/article/106985303/11658054#.
96. Australian Network of Art and Technology, *The Australian Network for Art & Technology (ANAT)*

1988 Annual Report (Adelaide: Australian Network of Art and Technology, 1989), 1.
97. Ibid.
98. Evans, 'An Oral History of the First Cyberfeminists'.
99. Ibid.
100. VNS Matrix, 'VNS Matrix: Slime Merch: About', Threadless, https://vnsmatrix.threadless.com/about (accessed 22 February 2023).
101. Ibid.
102. Williams and Gilbert, *Hegemony Now*.