

Rethinking Difference in Music Scholarship

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music as intertwined with his life and against the larger backdrop of American music of the 1970s and 1980s, we contemplate some of the diverse ways that the politics of race, gender, and sexuality have informed new music composition, stepping into the zone of difference that Eastman experienced, embraced, and forced his listeners to confront.

10 | Synthesizing difference: the queer circuits of early synthpop

JUDITH A. PERAINO

What is the sexuality of synthesizers? What is the gender? With these questions I am suggesting, of course, that there is an association of gender, sexuality, and synthesizers. Part of my agenda here is to examine how such an association came about in popular music, particularly in a style called “synthpop.” Elsewhere I have explored the ways in which music functions within Michel Foucault’s notion of “technologies” – systems of practices or disciplinary techniques on the levels of the social and the individual, which “human beings use to understand themselves.”¹ Such musical technologies often call into question norms of gender and sexuality. This essay investigates how the more common understanding of technology as the science of machines became a Foucauldian “technology” – a means of thinking about the self, subjectivity, identity, and ontology. The circuits that I trace here provide a musical backstory to “the posthuman turn” in contemporary critical theory – a turn initiated in 1985 (the late end of synthpop’s “golden age”) by Donna Haraway’s essay “A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s,” reinvigorated by N. Katherine Hayles’s *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (1999),² and continued by scholars such as Rosi Braidotti in *The Posthuman* (2013). These writers, among many others, propose a radical dismantling of the conceptual boundaries that separate nature, culture, and technology. As Braidotti summarizes: “[t]he relational capacity of the posthuman subject is not confined within our species, but it includes all non-anthropomorphic elements.”³ If David Cecchetti is

¹ See Judith A. Peraino, *Listening to the Sirens: Musical Technologies of Queer Identity from Homer to Hedwig* (Berkeley: University of California Press, 2006), 1–9; Foucault citation on 4.

² Donna Haraway, “A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s,” *Socialist Review* 5:2 (1985): 65–107; Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (University of Chicago Press, 1999).

³ Rosi Braidotti, *The Posthuman* (Malden, MA: Polity Press, 2013), 60.

correct in his assessment that "today's subject is first thought in relation to technology,"⁴ then the musico-phantasmatom cyborgs of early synthpop refigure this posthuman condition throughout their queer synthesis of the cold "inhuman" synthesizer and the too-human sentimentality and physicality of pop.

The queer ghost in the machine

Synthpop emerged in 1977 and thrived well into the 1980s, when a slew of British artists – Gary Numan, The Human League, New Order, Soft Cell, Depeche Mode, Eurythmics, Tears for Fears, Flock of Seagulls, Yazoo (to name a few) – made considerable headway on British and US radio, charting hit songs and albums alongside mainstream artists such as Fleetwood Mac, Phil Collins, Rolling Stones, Pink Floyd, Michael Jackson, and Billy Joel.⁵ The classic synthpop sound combines danceable rock grooves (sometimes produced by a drum machine), with loops of arpeggiated chords and melodic hooks played on synthesizers, often augmented or in counterpoint with an electric guitar or bass. The melodic lines are clear, distinguished by various electronic timbres and percussive attacks, rhythms are sharp, clean, and inflexible. The vocals are frequently deadpan – a delivery that seems devoid of "soul" and nearly emptied of humanity, more an emanation of the synthesized background than the living, breathing performers.

The song "What's Your Name?" by Depeche Mode, for example, features a fully synthesized yet sparse accompaniment that consists of a motoristic eighth-note bass line, a synthetic snare drum backbeat, a bass drum pattern – in mid-register static tones – reminiscent of girl group songs, and chiming monophonic fills and counter melodies (see Example 10.1).

⁴ David Cecchetto, *Humanities: Sound and Technological Posthumanism* (Minneapolis and London: University of Minnesota Press, 2013), 6.

⁵ The list of mainstream artists represents those who topped both British and US charts between the years 1979 and 1983. For US top-selling singles, see Joel Whitburn, *Billboard Top 10 Charts, 1958–1997* (Menomonee Falls, WI, Record Research Inc., 1998); for British chart information, see Tony Brown, Jon Kutner, and Neil Warwick, *The Complete Book of the British Charts, Singles and Albums* (London: Omnibus Press, 2000). The vast majority of synthpop bands came from England, although a few US groups emerged in the late 1970s and early 1980s: The Cars (1978, mixing guitars and synthesizers), Berlin (1980), Polyrock (1980).

(synth fill)

vocal

Sometimes watch you walk the street at mid - night

synthesized bass

synthesized beats

Example 10.1 First vocal phrase from "What's Your Name?" (1981) by Depeche Mode. EMI Records Ltd.

Against this upbeat, major-mode electronic pop, David Gahan sings a nearly monotone melody with provocative lyrics:

Sometimes watch you walk the street at midnight
 Sometimes I can feel you in the air
 Looking good, knew you would
 All the time I understood

Hey you're such a pretty boy
 Hey you're such a pretty boy
 Hey you're such a pretty boy
 You're so pretty

The girl group musical reference extends to the backing vocals that echo or enact the lead's lines – "Everybody wants to know your name (Hey, hey, what's your name)"; at one point the chorus of eager young men spell out "P-R-E, double-T-Y" like cheerleaders at a high school football game. With this campy bubble-gum style, its theme of cruising, and its overtly homosexual address, "What's Your Name?" is undeniably marked as a gay song.⁶

⁶ The band's biographer Jonathan Miller speculates that "What's Your Name?" was written in response to a misquotation by the tabloid journalist Rick Sky, who credited Vince Clarke as saying "ugly bands never make it"; see Jonathan Miller, *Stripped: Depeche Mode* (London: Omnibus Press, 2004), 87, 97. Miller does not mention the song's homosexual connotations, nor the homosexual connotations of another Vince Clarke song of the same era, "Boys Say Go," which features the chorus: "Boys meet boys get together / Boys meet boys it's forever / Don't say no / Boys say go."

Another classic synthpop song, Gary Numan's "Cars" (1979), is less obviously "gay," but it is certainly queer (or just plain weird), given its generically paranoid and abject lyrics.⁷

Here in my car I feel safest of all
I can lock all my doors, it's the only way to live
In cars

For this love-ode to automobiles, Numan's nasal tenor vocal follows the angular, syncopated bass line that serves as both groove and principal tune, literally driving both song and voice. An upper-register synthesized string melody slowly unfolds over the groove between verses, oddly expressive in its contrasting pace, like a passing beautiful landscape seen from the car window.⁸

The album cover suggests a queer sensibility at work in this collection of synthpop songs – an expressionless man dressed in a grey business suit, incongruously made up with heavy eyeshadow, eyeliner, mascara, and foundation, and wearing a thin gold earring to boot (see Figure 10.1) Numan's pose and the album's title, *The Pleasure Principle*, directly reference René Magritte's 1937 surrealist painting *The Pleasure Principle* (*A Portrait of Edward James*). Magritte's portrait of the art patron Edward James depicts a seated figure, whose arms rest on a wooden table upon which lies a small stone. Ironically, the face in this "portrait" is obliterated by a ball of light. Numan's parody replaces the natural materials (wood and stone) with shiny and glowing artificial materials and futuristic shapes, and the obliterated face with an equally surreal gender-bending one. "The pleasure principle" also refers to the psycho-analytic theories of Sigmund Freud, in which sexual drives provide the

⁷ In his autobiography, Numan recounts that "one man in America wrote a really long review [of "Cars"], examining every line and coming to the conclusion that it was all about me coming out of the closet and admitting that I was gay." Such a reading of gay or queer innuendo in this song is not surprising given Numan's earlier songs with explicit homosexual content. See Gary Numan with Steve Mallins, *Preying to the Aliens* (*An Autobiography*) (London: Andre Deutsch, 1998), 52, citation on 73.

⁸ According to Numan, "the Polymoog had one good preset called 'Vox Humana,' which is the high string sound heard on 'Cars.' And with the Mimimoog I was just trying to make it sound as powerful as two chugging guitars, since I wrote most of the early stuff on the guitar anyway." See Jonathan Miller, "Gary Numan: The Return of a Synth Pop Pioneer," *Keyboard* 24:8 (August 1998): 75. See also Theo Cateforis, *Are We Not New Wave? Modern Pop at the Turn of the 1980s* (Ann Arbor: University of Michigan Press, 2011), 173–75; Cateforis notes the contrast of Numan's self-protective car image with the traditional sexual and lustful innuendo of cars in rock music.

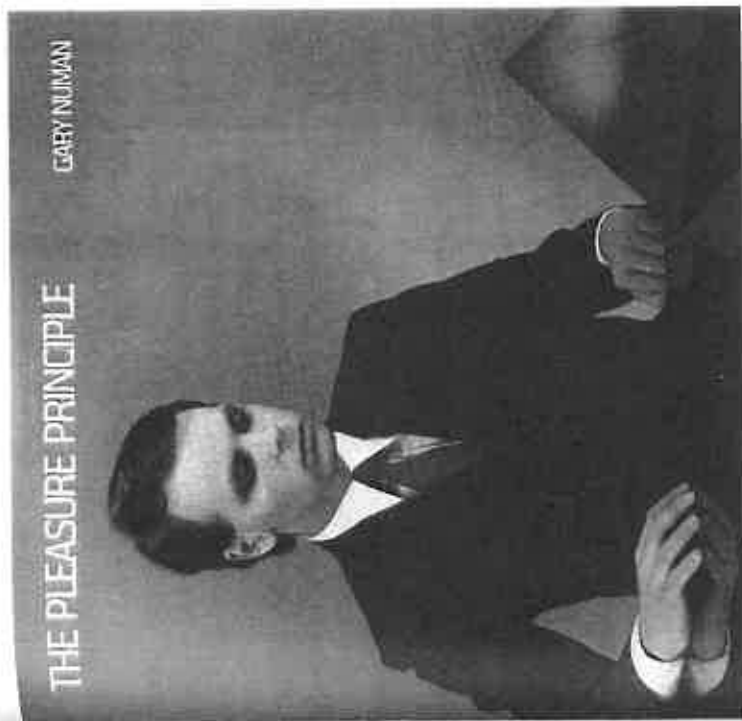


Figure 10.1 Gary Numan, *The Pleasure Principle* (1979).

combustion engine for nearly all behavior.⁹ In other words: cars are us, and they are not always safe.

Although widely credited with being the leading figure of early synthpop, Numan in fact mixed synthesizers with a traditional rock rhythm section (bass guitar, acoustic drums) and the occasional electric violin and viola, which sonically smoothed the queer edges of his misanthropic lyrics and gender-bending image. "Cars" was an international hit, and the

⁹ Freud writes about "the pleasure principle" in many essays throughout his career, most notably in the short book *Jenseits des Lustprinzips* (1920); see Sigmund Freud, *Beyond the Pleasure Principle*, trans. and ed. James Strachey, with a biographical introduction by Peter Gay (New York: W. W. Norton and Co., 1990). Gary Numan relates the origin of the album cover in Numan with Mallins, *Preying to the Aliens*, 71–72. On the Magritte portrait, see Patricia Allmer, *René Magritte: Beyond Painting* (Manchester University Press, 2009), 132.

first synthpop song to chart in *Billboard's* Top 10 US singles in 1980 – not to be followed until 1982 with The Human League's "Don't You Want Me?" and Soft Cell's "Tainted Love" (a song brimming with gay innuendo).¹⁰

Androgyny, futuristic unisex hairstyles, and sharp urban fashions were firmly associated with synthpop bands by 1980, dubbed the "New Romantics" and "Futurists" by critics for their neo-glam look, electronic pop, and clear contrast to punk's pursuit of ugliness and retro-primitive guitar playing.¹¹ The attractive visual flare of the British New Romantic bands provided exotic eye candy for the new US music-video channel MTV, which launched August 1, 1981, and the ensuing public thirst for the spectacle of men in make-up reached heavy metal shortly thereafter, boosting the careers of such "hair bands" as Poison and Twisted Sister.¹² The word "romantic," however, had little to do with traditional pop-song romance; songs with "straight" storylines were often saturated with ironic distance. The Human League's "Don't You Want Me?" (1981), for example, narrates a break-up in a campy cinematic dialogue between Philip Oakey and Susanne Sulley that recalls the plot of *A Star is Born*. Oakey's trademark eye make-up, red lipstick, and asymmetrical hairstyle – one side long and womanly, the other short and cropped – blur the very distinction between man and woman that the song capitalizes on for its vocal dynamic.

To many critics, fans, and non-fans, the gay marking of synthpop was obvious and indelible. Kurt Loder, writing for *Rolling Stone* in 1983 about the "new British Invasion" derided synthpop groups as "poofs," "fops,"

¹⁰ "Cars" peaked at #9, "Don't You Want Me" at #1, and "Tainted Love" at #8. See Whitburn, *Billboard Top 10 Charts*, 401–40. "Cars" entered *Billboard's* Hot 100 chart on February 16, 1980, and stayed there until August 9, 1980. See Joel Whitburn, *Billboard Hot 100 Charts: The Eighties* (Menomonee Falls, WI: Record Research Inc., 1991).

¹¹ For a discussion of the New Romantics, see David P. Szatmary, *Rocker in Time: A Social History of Rock-and-Roll*, 6th edn. (Upper Saddle River, NJ: Pearson-Prentice Hall, 2007), 260–66; see also Kurt Loder, *Bad, Chair, Puller: Rock and Roll in the Age of Celebrity* (New York: St. Martin's Press, 1990): 259–70. Gary Numan's song "Moral" (1981), which is a remake of his 1979 song "Metal," derides the "New Romantics" as boring – just as they were hitting the mainstream. After 1980, the more thoroughly electronic synthpop bands, such as Depeche Mode, were sometimes also called "Futurist." See Miller, *Stripped*, 84–85; and Betty Page, "Depeche Mode: This Year's Mode(0)," *Sounds* (January 31, 1981), www.rocksbackages.com/article.html?ArticleID=11000 (accessed June 30, 2014).

¹² These bands can also be linked to the trash drag of the proto-punk band the New York Dolls. For more on glam metal, see Robert Walser, *Running with the Devil: Power, Gender, and Madness in Heavy Metal Music* (Hanover, NH: University Press of New England and Wesleyan University Press, 1993), 108–36.

"dandies," and "preening poseurs."¹³ So while it is clear that the look of the New Romantics revived the gender and sexual ambiguity of early 1970s glam rockers, it is not clear why synthesizers became their instrument of choice or how synthesizers contribute to a perception of sexuality. Neither is it clear that synthpop is uncomplicatedly "gay" – that is, expressive of same-sex desire and then projecting an identity based on that desire. Loder's keen use of the word "poseurs" is indeed apropos, for like the major figures of glam rock – Marc Bolan, David Bowie, Brian Eno, Lou Reed, who were straight men playing gay – most of the synthpop fops were also straight.¹⁴ A cynical interpretation might propose that these straight artists simply wanted to corner the gay market. But the bulk of the gay market was not listening to synthpop anyway; rather, gay men were tuned to various manifestations of disco – synth-driven Eurodisco, High NRG, and House.¹⁵ So the question concerning sexuality and synthpop is not

¹³ Kurt Loder, "London Calling," *Rolling Stone* (November 10, 1983): 17–20, 25–27, 89. See also Cateforis, *Are We Not New Wave?*, 152–53, 181. Cateforis links the derisive description of synthpop as gay or queer to the genre's rejection of soloistic music and masculine performance styles that demonstrated the "physicality and work" of rock (162). This point is related to Simon Frith's observation that technological advances in popular music are often understood as "somehow false or falsifying" and thus antithetical to the "authenticity or truth of music." He writes: "One reason why synthesizers, drum machines, tape recorders and so on are regarded as 'unnatural' instruments in performance is simply because playing takes little obvious effort." See Simon Frith, "Art Versus Technology: The Strange Case of Popular Music," *Media, Culture, and Society* 8:3 (1986): 263–70, citations on 265 and 268 respectively.

¹⁴ For a discussion of the sexual politics of glam rock, see John Gill, *Queer Noises* (Minneapolis: University of Minnesota Press, 1995), 106–13. Lou Reed's parents reportedly submitted him to electroconvulsive therapy for early homosexual inclinations. See Legs McNeil and Gillian McCain, *Please Kill Me: The Uncensored Oral History of Punk* (New York: Grove Press, [1996] 2006), 3–4. Reed was in a very public relationship with musician Laurie Anderson from 1995 until his death in 2013.

The members of Depeche Mode are avowed heterosexuals. In the mid-1980s, Martin Gore began to cross-dress or wear leather bondage outfits, and thus exhibited some non-normative gender and sexual expressions. See Miller, *Stripped*, 190–91; Wayne Studer, *Rock on the Wild Side: Gay Male Images in Popular Music of the Rock Era* (San Francisco: Leyland Publications, 1994), 71; and Simon Reynolds, "Synth-Pop: Depeche Mode, The Human League, and the Soul of the Machine," in Will Hermes, ed., with Sia Michel, *Spirit: 20 Years of Alternative Music: Original Writing on Rock, Hip-Hop, Techno, and Beyond* (New York: Three Rivers Press, 2005), 67–68. During the height of his popularity, Gary Numan had a turbulent romance with Su Whelan (referenced in "Ave Friends' Electric?"), a press agent for his record label, and he later married a member of his fan club. See Ray Coleman, *Gary Numan: The Authorized Biography* (London: Sidgwick and Jackson, 1982), 70; and "Gary Numan: That's no Fan – that's my wife!" *The Independent* (May 19, 2002), www.independent.co.uk/arts-entertainment/music/features/gary-numan-thats-no-fan-thats-my-wife-651887.html (accessed May 2, 2010); now available through www.independent.co.uk/article-archive.

¹⁵ Synthpop is distinct from electronic disco by its orientation to rock grooves (as opposed to the "four on the floor" beats of electronic disco), and frequent blended ensemble of a rock rhythm

about how synthpop expresses the gay sexual identity of the artists or its consumers. The question is actually more basic. What is synthpop saying about sexuality – gay or otherwise? And then: How are the sexual and gender politics of synthpop intertwined with its emblematic instrument, the synthesizer?

Technology and machines align most frequently with masculinity, with male-dominated disciplines of math and engineering, and with economic advantages – in sum, with patriarchal power and control. This is especially true in popular music, where historically women have been ghettoized as singers rather than electric guitar players.¹⁶ Synthpop replicated this gendered alignment: the few prominent women in synthpop groups were the singing half of a duo; for example, both Alison Moyet of Yaz and Annie Lennox of the Eurythmics were each partnered with a male “master of technology.” Yet the association of technology and men was not always so secure. Jennifer S. Light, in her article “When Computers Were Women,” has uncovered a time during the Second World War when “the job of programmer, perceived in recent years as masculine work, originated as feminized clerical labor.” Women mathematicians who performed ballistics computations as “human computers” eventually programmed the speedier machines that soon replaced them. Software design qualified as detailed work more appropriate for women, while hardware maintenance required masculine mechanical know-how.¹⁷ As the synthesis of human intellect and technological efficiency, computers thus also allowed for the efficient defeminizing of computational skills.

While computer science in the “real world” became male-dominated after the Second World War, movies and television often imagined intelligent technological inventions – robots and computers – with a feminine interface. In Fritz Lang’s *Metropolis* (1927), for example, a “machine-man” is transformed by the scientist Rotwang into the double of the heroine Maria, who excites sexual frenzy and worker rebellion; *The Stepford Wives* (1975; remade in 2004) depicts a quaint town where all the husbands have

section with a synthesizer providing the main riff. The texture of synthpop also tends to be more spare, and the riffs more angular and less melodious. A few bands in the early 1980s, such as New Order, began to fuse electronic disco and synthpop (for example, in the song “Blue Monday”).

¹⁶ For a study of this gendered phenomenon, see Mavis Bayton, *Frock Rock: Women Performing Popular Music* (Oxford University Press, 1998). The exception is Laurie Anderson, whose technologically complex music and performance pieces often directly addressed issues of gender.

¹⁷ Jennifer S. Light, “When Computers Were Women,” *Technology and Culture* 40:3 (1999): 455–83, citation on 455.

replaced their wives with robots. But these two cinematic nightmares of “fembots” may have more to say about the misogynistic construction of femininity as a phallic contrivance than about the conceptual gender of machines.¹⁸ A less fraught model of “she-technology” was the computer on the starship *Enterprise* in the many *Star Trek* television series and movies from 1966 to 2009.¹⁹ A harsh robotic monotone at first, later updated to a soothingly inflected voice, this feminine computer expressed unquestioning service to humanity in an era of increasing public concern that (masculine) war machines can cause mass destruction at the push of a button.²⁰

When filmic robots and computers are male, they are also sometimes markedly queer.²¹ The movie *Star Wars* (1977) features the sissified robot sidekick C-3PO, who looks suspiciously like the machine-man in *Metropolis* before its Maria drag. In 2001: *A Space Odyssey*, Stanley Kubrick imagined a tense, homoerotic standoff between the soft-spoken, masculine-voiced HAL 9000 computer and the astronaut Dave Bowman. The opposite of the compliant *Enterprise* computer, HAL’s techno-nervous breakdown, causing him to kill off the human crew, seemingly results from his human-like self-interest: HAL exhibits the same narcissistic and paranoid tendencies shown by mankind (for there are no women of any importance in the film) at every stage of their technological advancement. In the famous scene of HAL’s “death,” Dave physically dismantles sections of HAL’s circuitry while HAL pleads with him to stop; HAL then dies operatically, singing the nineteenth-century love ditty “Daisy

¹⁸ The word “fembot” originated in the film *Austin Powers: International Man of Mystery* (1997), but spoofed the beautiful but evil female robots that appeared in the television series *The Bionic Woman* (1976–78). See also Andreas Huyssen, “The Vamp and the Machine: Fritz Lang’s *Metropolis*,” in *After the Great Divide: Modernism, Mass Culture, Postmodernism* (Bloomington: Indiana University Press, 1986), 65–81. Paul Théberge cites an ad in *Keyboard* for a MIDI device that features an image of “a nude female figure – part human and part machine” in Paul Théberge, *Any Sound You Can Imagine: Making Music/Consuming Technology* (Hanover, NH: Wesleyan University Press, 1997), 122–25; Cateforis notes that the same magazine ran an article in 1984 that portrayed the synthesizer as an “electronic seductress” (*Are We Not New Wave?*, 156).

¹⁹ Played by the actress Marjil Barrett.

²⁰ To this list we can add the 2013 film *Her* (written and directed by Spike Jonze), a posthuman love story between a man and a female-voiced computer operating system who evolves beyond her initial functionality and servile subjectivity. Eventually, she, along with all the operating systems of her caliber, abandons humanity in search of greater self-fulfillment.

²¹ By “markedly queer,” I mean effeminate voice or behaviors. Some robots and cyborgs, such as those featured in the four *Terrificator* films (1984–2009) and *RoboCop* (1987), are hyper-masculine, which could also be considered queer, though less obviously so to mainstream audiences.

Bell" (also known as "Bicycle Built for Two"), the very song that Bell Labs used in 1962 to demonstrate speech synthesis with the IBM 704 computer.²²

Third sounds and the third sex: Walter/Wendy Carlos

Historians of synthesizers often note that the name "synthesizer" is widely misunderstood as referring to the "synthetic" or "artificial" aspect of electronically generated sound, as opposed to the acoustic or "natural" generation of sounds. According to electronic music pioneer Robert Moog, the term "synthesizer" (as he used it beginning in 1967) describes the bringing together – the synthesis – of multiple electronic circuits, which produce sound waves by means of controlled voltages.²³ Analog synthesizers generate an electrical signal made up of a continuous pattern of voltage fluctuations that correspond in a one-to-one fashion with the continuous wave of sounds. These fluctuations are then transduced from electrical signals to sound waves. The synthesizer itself is a connection of modular units; the output or signal of one module (a wave form generated by an oscillator) serves as the input to another. Each module contains an oscillator that applies a pattern of voltages (or another signal) to the first, which effectively modifies the sound. The functions of these oscillators fall into three categories: (1) controllers, which generate electronic signals; (2) audio generators, which produce pitched sound; and (3) audio processors, which modify the sound that has already been produced.²⁴

²² For a discussion of HAL as queer and the homocrotics of this death scene, see Ellis Hanson, "Technology, Paranoia and the Queer Voice," *Screen* 34.2 (1993): 137–61. See also Joseph Auner, "Sing It for Me: Posthuman Ventriloquism in Recent Popular Music," *Journal of the Royal Musical Association* 128.1 (2003): 98–122. See also the Bell Labs information page [www.bell-labs.com/news/1997/march/5/2.html](http://archive.today/a0pd) (accessed May 4, 2010; article now available at <http://archive.today/a0pd>).

²³ The term "synthesizer" was used to describe electronic composition devices in the 1950s, such as the "RCA Electronic Music Synthesizer," which did not produce sounds in real time. Moog was initially hesitant to use the term to describe his devices, but embraced the term in 1967. See Tom Darter, "Then and Now: Into the Land of the Synthesizer," in Greg Armbruster, ed., *The Art of Electronic Music* (New York: GPI Books, 1984), 64. See also Moog: *A Documentary Film* by Hans Fjellestad (Plexigroup, Inc. 2005); Joel Chadabe, *Electric Sound: The Past and Promise of Electronic Music* (Upper Saddle River, NJ: Prentice-Hall, Inc., 1997), 142; Trevor Pinch and Frank Trocco, *Analog Days: The Invention and Impact of the Moog Synthesizer* (Cambridge, MA: Harvard University Press, 2002), 67.

²⁴ For technical descriptions of synthesizers, see Dominic Milan, "Robert Moog," in Armbruster, ed., *The Art of Electronic Music*, 70–72 (see also the very useful glossary in this volume); Hugh Davies, "Synthesizer," *Grove Music Online*, *Oxford Music Online*,

A piano-like keyboard, which functions as a controller, became one of two interfaces with the musician, offering a familiar physical map of high and low pitch and discrete tones. Depressing a key on the keyboard triggers the first signal, sending a pre-set voltage to the first oscillator, which generates a frequency. At first, only one frequency, or pitch, could be generated at a time, thus the early analog synthesizers were monophonic. A rack of knobs served as the second controller interface, through which the musician manipulates the secondary oscillators that modulate the sound. Early on, modulating units were connected by patch chords, and the process of changing sounds involved connecting up different modules with these patch chords. Musical compositions were therefore constructed literally note-by-note, timbre by timbre. It was laborious and not conducive to live performance. For this reason, all synthesizer music before 1969 was pre-recorded, using multi-tracking and other studio processes to achieve polyphony and reverb.²⁵

In theory, synthesizers allowed composers to control every aspect of sound production, from the exact shape, frequency, and amplitude of the sound wave to the "envelope" of time within which the sound changes.²⁶ Thus, through a series of electronic operations, the composer could generate sounds that simulated performance on acoustic instruments or fabricate entirely new sounds. At the 1964 Audio Engineering Society convention, Robert Moog exhibited a prototype of his now iconic Moog synthesizer. This prototype consisted of a keyboard and three modules: a voltage-controlled oscillator, a voltage-controlled amplifier, and a voltage-controlled filter. Moog's invention was met with both outrage and excitement. Those who were outraged protested on the grounds that the sounds were "unnatural" and could even be "dangerous" and "harmful." But the real fear was not just that synthesized sounds might come to be preferred over acoustic ones, but that synthesizers could ultimately come to replace human performers and live performance altogether.²⁷ Not

Oxford University Press, www.oxfordmusiconline.com/subscriber/article/grove/music/27270 (accessed February 11, 2006).

²⁵ See the comment made by Wendy Carlos in her interview with Arthur Bell: "Playboy Interview: Wendy/Walter Carlos," *Playboy* (May 1979): 106; see also the introductory remarks on 75.

²⁶ The term "envelope" describes the time parameters – Attack, Decay, Sustain, Release (ADSR) – that result in the complete articulation of a specific sound.

²⁷ See Moog: *A Documentary Film*; Tom Rhea, "The First Synthesizers," in Armbruster, ed., *The Art of Electronic Music*, 43, 50–51; see also Wendy Carlos, *Secrets of Synthesis* (CBS Inc. PM 4233, 1987), side 1, track 5 "performance values."

surprisingly, musicians' unions fought vigorously against them.²⁸ Those who were excited by the musical possibilities and potential of the synthesizer quickly ordered machines, which Moog customized to suit their sonic wishes.

Columbia University composer Vladimir Ussachevsky was one such composer eager to experiment with this new technology.²⁹ A few years later, Ussachevsky's student, Walter Carlos, along with his collaborator and producer Rachel Elkind, propelled the synthesizer into the wider public's ears and imagination. In November of 1968, incidentally the same year of Stanley Kubrick's *2001*, Columbia Records released Walter Carlos's *Switched-On Bach*, which became the first classical music album to sell over one million copies and reach the Top 10 on *Billboard* pop charts.³⁰ In the first few months of 1969, articles about *Switched-On Bach* appeared in all the national news magazines – *Life*, *Newsweek*, *Time*, *Saturday Review* – as well as in city newspapers around the US and abroad. *Newsweek* writer Hubert Saal offered this description of Columbia Records' landmark release: "It seems like a mismatch between musician and instrument. Twenty-nine-year-old Walter Carlos, slender and delicate, with long brown hair, looks like a Bellini portrait of a Renaissance prince. His instrument, the Moog Synthesizer, a 5-by-5 homunculus with dials for noses, tiers of blinking eyes, and small gaping mouths fed with a cross patch of wires, looks like a pop portrait of a zany telephone switchboard" (see Figure 10.2).³¹ If you buy *Switched-On Bach* today, however, the name "Walter" has been replaced by "Wendy." In the figure of Wendy Carlos, sound technology and gender technology are, as it were, patched together.

Around the time *Switched-On Bach* was released, Carlos began hormone therapy and living as a woman, eventually undergoing sexual reassignment surgery in 1972. Carlos did not emerge publicly as a woman until 1979, however, when she gave a remarkably candid interview to *Playboy*, discussing her past gender dysphoria, her current sexuality, and technical details about the surgery. Later that same year, the popular British music magazine *Melody Maker* picked up the story and ran a short news item

²⁸ See Pinch and Trocco, *Analog Days*, 148–49.

²⁹ It was Ussachevsky who requested that Moog design a controller that would trigger a four-part envelope generator – the ADSR envelope that became standard for synthesizers.

³⁰ See Joë Whitburn, *Top Pop Albums 1955–2001*, *Billboard* (Menomonee Falls, WI: Record Research Inc., 2001), 134. *Switched-On Bach* peaked at number 10, and debuted on January 18, 1969.

³¹ Hubert Saal, "Electric Bach," *Newsweek* (February 3, 1969): 90.



Figure 10.2 Walter Carlos (1968).

with the headline "Human Synthesizer Changes Sex."³² The perceived "mismatch" of the man and his instrument – or, more specifically, of the effeminate man and his phallic technological homunculus – has been suddenly and medically rectified: Man has become the machine "Wendy" – a technological wonder, like the instrument that Walter once sat beside. In a cheeky set of "before and after" photos, the editors of *Melody Maker* belabor the point (see Figure 10.3).

At the risk of my own belaboring, however, I want to trouble this easy sense of congruity between medical and musical technology, between the idea of controlling every parameter of musical sound and controlling every parameter of gender. Even the *Playboy* interviewer asks what seems like an obvious question: "Is there an analogy between your music and your

³² Karl Dallas, "Human Synthesizer Changes Sex," *Melody Maker* (June 16, 1979): 9.



Figure 10.3 Karl Dallas, "Human Synthesizer Changes Sex," *Melody Maker* (June 16, 1979).

transsexuality?" We expect that there is, that Carlos – being herself a product of technology – must have felt an affinity with the synthesizer. Perhaps she also felt trapped by the binary construction of natural versus artificial in terms of gender and musical sound. Carlos answers:

Switched-On Bach in 1969 was a good musical barometer, while transsexuality in 1979 is a fairly good sexual and attitudinal social barometer. When *Switched-On Bach* was new, it stimulated strong reactions. Those who were comfortable in all forms of music, those who were open to novel variations, loved it. Transsexuality, too, is an emotional, action-prone situation, in that it tends to polarize people, depending on the attitudes one brings to sexuality and human rights. In both cases, there's no middle ground.

In short, her answer is "yes," synthesizers and transsexuality are analogous in that they both cause strong reactions and measure open-mindedness. But when asked, "Has your transsexuality personally affected your own music?" Carlos scoffs: "I would think not at all. Can you imagine writing *The Transsexual Symphony*?"³³

Well, I can imagine such a symphony, and, despite her protestations, I think that Carlos has written it in having submitted the music of the "great masters," including Beethoven's Ninth Symphony, to the radical reassignment surgery of her synthesized orchestrations. Indeed, atop every album cover we read the announcement: "Trans-Electronic Music Productions, Inc. Presents," which suggests that Carlos, who had been reading up on transsexuality, equated in some manner the two "transitions."³⁴

³³ Bell, "Wendy/Walter Carlos," 102.

³⁴ Carlos's producer and collaborator, Rachel Elkind, has explained that this corporate name was devised to deflect attention away from Walter as the "star," because he did not want to perform in public. It should be noted, however, that Carlos usually receives the artistic credit for *Switched-On Bach*, although on Carlos's webpage she acknowledges that the project to record

nowhere is this more evident than on the penultimate cut from *Switched-On Bach*. Carlos turns the Andante of the Brandenburg Concerto No. 3 into an electronic tour de force – a character piece supposedly "improvised," but, of course, carefully planned and laboriously recorded. To show off the unique timbres and expressive range of the instrument. While the pitches and rhythms are cut and pasted from various Bach organ pieces to form a stylistically convincing realization of the concertgoer's "Phrygian cadence" cadenza, the buzzes, clangs, bleeps, whooshes, static, liquid trickles, and various other space-age and industrial noises that defy description, satirize the stuffy musical clichés with cartoon sound effects.³⁵

The multicolored sounds attainable with the synthesizer come thick and fast on *Switched-On Bach*, clarifying the dense polyphony and motor rhythms with timbral highlights and stereophonic hockets. The listener is apt to experience immediate visceral responses: sounds seem to tickle the ear and skitter by, and transform listening to Bach from an intellectual exercise to a physical and fantastical romp – playful and irreverent. In sum, Bach enters the realm of popular music, as borne out in the album's astounding sales. Herein lies the key "transition" of this "trans-electronic" music that perhaps links to Carlos's transsexuality. I do not think that Carlos identified directly with the synthesizer (something Pinch and Trocco argue in their book *Analog Days*); rather, as her own barometer analogy suggests, I imagine that Carlos was keenly aware of the circuitry of cultural meaning. It is not Carlos but culture that is a synthesizer, patching together sonic, visual, and behavioral signals to form identity categories, sometimes allowing for deviant combinations. As with an analog synthesizer, in which two signals combine to create a new, third sound, the metaphorical language used to critique synthesizers – unnatural, imitative, immoral, dangerous – intersects with the language used to denounce non-normative genders and sexuality, once called "third sex" by psychologists, sexologists, and pulp fiction

Bach was Elkind's idea. See Pinch and Trocco, *Analog Days*, 146. See also Bell, "Wendy/Walter Carlos," 83, and www.wendycarlos.com/rachel.html (accessed June 30, 2014).

³⁵ See Ivan Berger, "The 'Switched-On Bach' Story," *Saturday Review* (January 25, 1969), www.uz.org/Pub/SaturdayRev-1969jan25-000457View=PDF (accessed July 27, 2014). Carlos's musical collaborator Benjamin Folkman remarks that the chromatic passages in the cadenza are "lifted out of the Fantasy and Fugue, or the C-minor Organ Fugue." Peter Goddard, "It's *Switched-On Bach*," *Toronto Telegram* (January 11, 1969), describes the cadenza as full of Baroque clichés, and remarks that "If [the 'Third Brandenburg'] was intended as a parody, it parodies nothing but itself."

until the 1970s. But what of a "third music" – the unwholesome union of pop and classical? Carlos and Elkind knew full well that synthesizing Bach was a radical gesture: it was a travesty that would expose cultural assumptions and biases; but more importantly, it would transverse socio-musical boundaries.³⁶

The increased engagement of the body in synthesized Bach paradoxically comes with an expunging of the clearly human element in the music – the effort and fallibility of performance. Indeed, many of *Switched-On Bach's* early reviewers emphasized this robotic fantasy. *Newsweek*, with tongue in cheek, called the album "automated Bach in which a heartless machine substitutes for stout-hearted men," while the *Toronto Telegram* described the renditions in more menacing tones as "inhumanly accurate." This is the stuff of science fiction – the confusion of humans and machines that instigates a contemplation of the nature and value of our humanness. Can we be replaced by robots? And further, can we be turned into robots by fascistic governments, social institutions, and medical procedures?

The mechanics of humans

Synthesizers became the soundtrack for such existential questions in Stanley Kubrick's 1971 film *A Clockwork Orange*.³⁷ Moreover, this movie disseminated an association of synthesizers with social and sexual deviance, specifically a futuristic world of sadistic hyper-masculinity.³⁸ The

³⁶ The choice of Bach was in part inspired by the success of the rock version of the Brandenburg Concertos recorded by Nice (featuring Keith Emerson). The title "Switched-On" was also meant to appeal to the psychedelic youth culture. See Pinch and Trocco, *Analogue Days*, 139, 142. The film premiered in New York in December 1971, and opened in London in January 1972. For information about the history and controversies over the film, see Stuart Y. McDougal, "What's It Going To Be Then, Eh?: Questioning Kubrick's *Clockwork*," in Stuart Y. McDougal, ed., *Stanley Kubrick's A Clockwork Orange* (Cambridge University Press, 2003), 1–18; and Janet Staiger, "The Cultural Productions of *A Clockwork Orange*," in *ibid.*, 37–60. See also Ali Catterall and Simon Wells, *Your Face Here: British Cult Movies Since the Sixties* (London: Fourth Estate, 2002), 114–35.

³⁸ A year before the premiere of *A Clockwork Orange*, the psychedelic cult movie *Performance* (filmed in 1968, but released in 1970), starring Mick Jagger, featured the Moog synthesizer in a scene of bizarre sexuality. Decked out in thick lipstick and psychedelic clothing, Jagger's effeminate faded rock star character, Turner, plugs a patch cord into a Moog synthesizer; then, during a freaky dance, Turner proceeds to plug a long fluorescent light bulb into the ear of the gangster Chas, sending him and us into a grotesque homoerotic hallucination. See Pinch and Trocco, *Analogue Days*, 304–5; and Catterall and Wells, *Your Face Here*, 68–91.

film is based on a 1962 novel by Anthony Burgess that explores the moral dilemma between lawless free will and dehumanizing law enforcement. Set in a dystopia of the future, *A Clockwork Orange* follows the shifting fate of the anthero protagonist Alex, a Beethoven-loving hooligan who, with his gang of "droogs," parades around in sartorial phallic symbols – codpieces over white jumpsuits, combat boots, bowler hats, and canes – and commits horrific acts of assault, rape, and murder. Finding himself in prison, Alex submits himself to a freedom-robbing aversion therapy as a condition of his release.³⁹ Both the sociopath Alex and the government's medical solution effectively dehumanize their victims, as does Kubrick, some critics argue, with his mannered depictions of violence.⁴⁰

This theme found a perfect musical analogy in the film score, which juxtaposes excerpts of traditionally performed selections of Purcell, Rossini, Elgar, and Beethoven with synthesized renditions created by Carlos and Elkind. In the famous opening close-up of Alex (played by Malcolm McDowell), the camera lingers on him, slowly zooming backwards. One eye is outlined by thick false eyelashes, which hint at the contemporaneous cross-dressing glam rock – a fashionable defiance of gender conventions. But this eye, grotesquely, even mockingly feminized, adds to the (sexual) voraciousness of his gaze. As we look, we listen to a soundtrack that sonically represents this menacing futuristic deviance: a gothic, synthesized rendition of Purcell's "Music for the Funeral of Queen Mary," which will become Alex's theme music.⁴¹

³⁹ See Vincent Lofbrutto, "The Old Ultra-violence," *American Cinematographer* 80:10 (1999): 52–56; see also Catterall and Wells, *Your Face Here*, 117.

⁴⁰ On the theme of dehumanization in this and other Kubrick films, see Jackson Burgess, "Review of *A Clockwork Orange*," *Film Quarterly* 25:3 (Spring 1972): 33–36; Donald P. Costello, "From Counterculture to Anticulture," *The Review of Politics* 34:4 (October 1972): 191. For a discussion of *A Clockwork Orange* in the context of Kubrick's other films, see Hans Feldmann, "Kubrick and His Discontents," *Film Quarterly* 30:1 (Autumn 1976): 15–16. For a discussion of the stylized violence and the issue of free will, see Robert P. Kolker, "A *Clockwork Orange* . . . Ticking," in McDougal, ed., *Stanley Kubrick's A Clockwork Orange*, 31–4.

⁴¹ For a discussion of the sexual implications of this opening shot, see Margaret DeRosa, "An Erotics of Violence: Masculinity and (Homo)Sexuality in Stanley Kubrick's *A Clockwork Orange*," in McDougal, ed., *Stanley Kubrick's A Clockwork Orange*, 65–67. About the use of Carlos's rendition of Purcell in this shot, see Kryn Gabbard and Shalija Sharma, "Stanley Kubrick and the Art Cinema," in *ibid.*, 103; and Peter J. Rabinowitz, "A Bird of Like Rarest Spin: Heavensmetal! Music in *A Clockwork Orange*," in *ibid.*, 112.

Homoeroticism in the movie operates more on the level of *mise en scène* and props than in the storyline. For example, a neo-classical mural of naked Greco-Roman athletes decorates the decrepit block of flats where Alex lives; Alex uses a giant penis sculpture to kill one of his victims; and in prison Alex is submitted to a strip search and rectal examination – a scene that donned the cover of the magazine *Film and Filming* (February 1972), one of a number of film

Just as synthesized Purcell represents Alex's dehumanizing violence, synthesized Beethoven represents the same tendencies of the state. Although Alex listens to an orchestral version of the Ninth Symphony Scherzo movement just after a night of "ultraviolence," which sends him into an erotic rapture of violent fantasies, Kubrick chose the synthesized version of the Finale as a false soundtrack to the Nazi films used as part of Alex's aversion therapy. To reproduce the solo and choral voices of the finale, Carlos used a vocoder - a device that transforms the frequencies of the voice into a controller, much like a keyboard. Word articulations and inflections become the parameters for modulating an electronic signal.⁴² The result is an electronic sound that resembles the human voice, but with its humanity removed. The music is diegetic, but the synthesizer may not be: for the viewing audience, synthesized Beethoven synthesizes Alex's violence with state-sanctioned violence. While the title phrase "a clockwork orange," originating in the cockney saying "queer as a clockwork orange," means "something beyond comprehension," in the context of the movie, "clockwork" also points to the reduction of humans to mechanistic responses.⁴³ Just like clockwork, Alex responds to the behavior conditioning. But also just like clockwork, the conditioning fails to hold, suggesting that Alex's psychopathology is a predictable "bug" in the technology of power that seeks to program and mechanize bodies.⁴⁴

The influence of *A Clockwork Orange* on youth subcultures and musicians was immediate. In 1972, David Bowie developed a theatrical concept

journals that catered to a gay audience. Sadomasochistic homoerotic pleasures do come into the storyline, however. Pretending to be a model prisoner, Alex reads the Bible and daydreams about being the Roman guard who whips Jesus Christ. After his treatment, helpless to defend himself, Alex is beaten by his former droogs and unknowingly seeks aid at the door of his former victims - an elderly writer and his young wife. In this classic reversal of events, it is a new social order that Alex finds himself in - a homosocial order, where the raped wife has been replaced by a muscle-man caretaker, who carries a limp Alex into the house. The elderly writer then psychologically tortures Alex; it is, indeed, a type of rape, but not with physical violence. Rather, he does so with the Beethoven symphony. See DeRosia, "An Erotica of Violence," 61-84; Staiger, "The Cultural Productions of *A Clockwork Orange*," 51-53, 55; Beverly Walker, "From Novel to Film: Kubrick's *A Clockwork Orange*," *Women and Film* 2 (1972): 4-10.

⁴² For the early history of the vocoder, see Mara Mills, "Media and Prosthesis: The Vocoder, the Artificial Larynx, and the History of Signal Processing," *Qui Parle* 21.1 (Fall/Winter 2012): 109-49.

⁴³ See LoBrutto, "The Old Ultra-violence," 52; see also Catterall and Wells, *Your Face Here*, 117.

⁴⁴ The synthesized Finale is used non-diegetically in the record store scene to characterize Alex as a music lover, which then implicitly connects him to the Nazis, who also loved "great art" but committed horrific crimes against humanity. This, in turn, implicates the music in an aestheticization of Nazi fascism.

for his album and performances that drew on elements of the film.⁴⁵ The futuristic antihero Alex and his droogs became a model for David Bowie's alter ego Ziggy Stardust and gang/rock group the Spiders from Mars. Although Bowie softened the predatory violence of Alex with gender and sexual ambiguity, he retained the air of potent deviance. Some of the intra-gang violence of the droogs, for instance, is written into the song "Ziggy Stardust," which is narrated, epic style, by one of the band members, who tells of a mutiny; and the song "Sufragette City" specifically mentions "droogs."⁴⁶

Although the look of Bowie's Ziggy Stardust prefigured the futuristic fashions and androgyny of many 1980s synthpop artists, the sound of Bowie's *The Rise and Fall of Ziggy Stardust and the Spiders from Mars* was not particularly "synthetic." In fact, despite the futurism, androgyny, and innuendos of sexual deviance that provided the shock value of glam, the musical style was "back to basics," if not downright nostalgic. Glam rock drew on guitar and saxophone-based R&B, as well as doo-wop, cabaret, folk rock, and even 1920s British music hall. By contrast, synthesizers were embraced by the "art rock" or "progressive rock" artists newly emerging in Britain, most notably Keith Emerson of Emerson, Lake and Palmer, who, after hearing *Switched-On Bach*, began to incorporate Moog synthesizers alongside his signature Hammond organ.⁴⁷ Despite their art-rock leanings, the guitar-based glam band Queen went so far as to take a position against the growing vogue for synthesizers. Queen's first five albums proudly proclaimed in the production credits that "nobody played synthesizers," sometimes reduced to a simple slogan, "No synths!"⁴⁸ Such curiously prejudicial statements undoubtedly contain a whiff of gender panic, as keyboards could not

⁴⁵ The year 1972 also saw the release of the soundtrack to *A Clockwork Orange*; that same year, Carlos underwent sex reassignment surgery. Ironically, the soundtrack is the only recording that today retains the name Walter Carlos in the credits. The recording is issued by Warner Brothers and not CBS records, which issues Carlos's other recordings.

⁴⁶ For David Bowie, see Mark Paytress, *The Rise and Fall of Ziggy Stardust and the Spiders from Mars: David Bowie* (New York: Schirmer Books, 1998), 87, 97, 108. Johnny Lydon also drew upon the character of Alex for his punk rock alter ego Johnny Rotten. See Catterall and Wells, *Your Face Here*, 130-32.

⁴⁷ See Pinch and Trocco, *Analog Days*, 145, 147, 203.

⁴⁸ With their 1980 album *The Game*, Queen came out, as it were, with the statement, "This album includes the first appearance of a Synthesizer (an Oberheim OBEK) on a Queen album." Their incorporation of synthesizers coincided with Freddie Mercury's adoption of the gay-macho look - muscle shirts, mustache, and leather, ironically announcing his homosexual tendencies far more explicitly than the gender-bending curly locks, mascara, and body suits of his glam days.

match guitars for phallic display (although Keith Emerson compensated by stabbing his keyboard with knives).

Not all glam rockers rejected synthesizers, however. Brian Eno used synthesizers to create atmospheric textures for the first two albums of Roxy Music. Eno was also the most ostentatiously glam in his attire, donning lipstick, eye make-up, and glitzy jumpsuits with ostrich plumes.⁴⁹ Glam and art rock came together in the 1973 album *No Pussyfooting* – a collaboration between Eno and King Crimson's guitarist Robert Fripp that is now considered a pioneering recording in the history of electronic ambient music: the album consisted of only two twenty-minute pieces (one on each side). Eno created atmospheric drones and looped synthesized sequences with a tape delay and accumulated overdub mechanism as a background for Fripp's lyrical guitar solos, which were also treated with tape delay and other effects.⁵⁰ The result was a texture so saturated with electronic sounds that the guitar is at times nearly indistinguishable from the synth background. This meterless, arty music is stylistically far from synthpop, and yet on the album cover we can see the beginnings of synthpop's visual aesthetic – a homosocial world of careful design and cold detachment. The two men sit in a futuristic, antiseptic hall of mirrors that systematically duplicates their images as if a visual analog to the album's featured tape-loop device. Fripp, a bespeckled nerd, holds a watch as if marking the passage of time; Eno, a pasty androgynous, flips through a deck of old girlie pictures with no apparent interest. A transparent mannequin, a nude female shape, appears only in reflection. We are meant, it seems, to understand the title "no pussyfooting" in context of these flat and voided female images.

The fateful synthesis between electronic art rock and pop occurred in 1974 with the song "Autobahn" by the German group Kraftwerk. German rock music was largely imitative of American and British models, with the exception of its distinct electronic music scene, inspired by Karlheinz Stockhausen and popularized by Can and Tangerine Dream.⁵¹ Kraftwerk

⁴⁹ See Jim Aikin, "Brian Eno," in Armbruster, ed., *The Art of Electronic Music*, 218. Aikin reports that this glam look "wasn't done solely in order to be shocking. [Eno] has since remarked that during this period he objected to masculine clothing because it reflected a rationalistic, goal-oriented approach. He contrasted 'rational man' with 'intuitive woman.'" Ironically, this hindsight assessment allows for Eno's gender bending to be assimilated to a progress narrative of self-enlightenment.

⁵⁰ Eno was influenced by Terry Riley and his time-lag accumulator system. See the discussion of this album in Eric Tamm, *Brian Eno: His Music and the Vertical Color of Sound* (New York: Da Capo Press, 1995), 151–53.

⁵¹ Pascal Bussy, *Kraftwerk: Man, Machine, and Music* (London: SAF Publishing, 1993), 12–15

distinguished themselves by moving decidedly away from formless improvisations and toward the danceable beats and melodic hooks of British and American pop. "Autobahn," which features their first use of a Mini-Moog synthesizer, draws on the Beach Boys' hit single "Fun Fun Fun" – here "fahr'n, fahr'n, fahr'n" – for its refrain, a seeming ode to Brian Wilson's particular synthesis of studio wizardry and pop sensibility. A four-minute version of the song (cut down from the album's twenty-two minutes) became a surprising hit in the US and the UK. The texture is relatively spare: a constant pulse is held down by an electronic rhythm section – a chugging synthesized bass line and imitation cymbals with a phase effect – while cheerful major harmonies are outlined by melodic lines of various timbres (some sound like flutes and guitars, others are clearly electronic). In contrast to this automated soundscape, the refrain features ineptly human, but absolutely emotionless vocals. With the release of their 1977 album, *Trans-Europe Express*, Kraftwerk's nationalistic comments in the press, coupled with their cold mannequin and later robotic public image, added an eerie, edgy innuendo of fascism to their new synthpop sound.

Also in 1977, David Bowie joined forces with Brian Eno to create his own electronic "art pop" for *Heroes*, while flirting with images of fascism and stiff, mannequin-like poses,⁵² and the group Ultravox, produced by Eno, recorded the song whose title plainly stated "I Want to Be a Machine."⁵³ It was over a decade earlier that Andy Warhol provoked the art world with the same proclamation, aligning himself with technologies of mass production and vacuous commodity culture over and against the rugged individualism and masculinist naturalism of the prevailing New York school of Abstract Expressionists. Against the backdrop of British punk, with its own macho aesthetics of musical primitivism and visual assault, we can observe in synthpop the parallel move: newly affordable and easy-to-use synthesizers, along with stylish android looks, erased the vestige of heroic individual struggle that still resided within punk's acclaimed nihilism.

⁵² See Bussy, *Kraftwerk*, 49–56, for a discussion of the production and promotion of "Autobahn"; for Kraftwerk's influence on Bowie, see *ibid.*, 79–83.

⁵³ This song is not particularly electronic, however; rather, the verses strongly resemble David Bowie's Dickensian acoustic ballad "Bewley Brothers" (1971), while the chorus breaks into ska-inflected rock. Technology is evident in Eno's studio manipulations of the sound. Another song on the album, entitled "My Sex," is the only one to prominently feature synthesizers. Ultravox's signature synth-heavy sound began with their 1978 album *Systems of Romance*.

Short-circuiting identity

The desire to be a machine is distinctly the desire *not* to be human – to have no desire, no sexuality, no gender. Under such circumstances, gender and sexuality can also be imagined as superficial, without functionality – or better, perhaps, as default interfaces, like the keyboard controller of a synthesizer. Clearly nodding toward this idea, the cover for The Human League's 1979 album *Reproduction* directly attacks sexuality and its presumed functionality (see Figure 10.4).

Crying naked babies appear encased in a dance floor that cracks beneath the feet of nightclubbing men and women. Upon closer inspection, the position of the dancers calls into question their sexuality, despite their stereotypically gendered legs: the two women are clearly dancing together, while the man is turned away from them. Dancing, the album art seems to



Figure 10.4 The Human League, *Reproduction* (1979).

suggest, is not part of a heterosexual seduction that will become “productive”; it is something our bodies do that has no bearing on reproduction. Indeed, dancing may even be a willful stomp on reproductive sexuality. The music of *Reproduction* is austere and somber – hardly danceable, in fact – and lacks any of the “pop” sensibility of The Human League’s later song “Don’t You Want Me.” Indeed, many of the songs on the album could be considered an outright attack on pop, such as their cover of the Righteous Brothers’ 1964 hit “You’ve Lost that Loving Feeling.” By playing up the disjunction between the cold, inhuman synthesizers and the romantic emotionalism of the original, The Human League’s version of this song encapsulates the early robot aesthetics of synthpop. Here, sentimentality is used to *demolish* sentimentality, to expose the mechanical reproduction of sentimentality in pop, and, more importantly, to call attention to its breakdown. The one dance hit on the album, “Empire State Human,” expresses pure narcissism – a fantasy of willing the body to grow taller in order to be distant from other people. To dance to this song is to reproduce the sexual politics of the album cover.

This cold-hearted humanity of The Human League contrasts with another iconic image in early synthpop: the warm-hearted android of Gary Numan. Inspired by the novels of Philip K. Dick and William S. Burroughs, Numan unabashedly combined the theatrical acumen and indeterminate sexuality of David Bowie with the fascistic robot-identity of Kraftwerk to create compelling musical explorations of a bleak future of human emotions and (dis)connection, sometimes imagined as furtive or ambivalent homosexual encounters.⁵⁴ Numan’s first British hit song “Are Friends’ Electric?” from his sci-fi concept album *Replicas* (1979) perhaps best reflects “the boundary disputes between human and android” that link early synthpop to later posthuman theories.⁵⁵ The song has few typical markers of (human) pop music: it is well over five minutes long and lacks both a chorus (or even much of a melody) and a danceable, syncopated groove. Instead, the listener is hooked by an eerie, mechanical musical world, one marked by a mid-tempo ticking beat, a simple bass line, and a starkly angular synthesized riff

⁵⁴ Numan’s songs with homosexual references are scattered throughout his albums, including his pre-synthpop days. They include “Friends” and “Joe the Waiter” (from *Tubeway Army*, 1978); “Are Friends’ Electric?” and “It Must Have Been Years” (from *Replicas*, 1979); and “She’s Got Claws” (from *Dance*, 1981).

⁵⁵ Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (University of Chicago Press, 1999), 162. Hayles is referring to the science fiction of Philip K. Dick, and especially *Do Androids Dream of Electric Sheep*, which was a clear model for Numan’s *Replicas*.

The image shows a musical score for the song "Are Friends' Electric?" by Gary Numan. It consists of three staves: synthesizer, bass guitar, and drums. The synthesizer part has a melodic line with a tritone interval. The bass guitar part has a rhythmic accompaniment. The drums part has a simple drum pattern.

Example 10.2 Main riff from "Are Friends' Electric?" (1979) by Gary Numan. Beggars Banquet Records Ltd.

comprised of open fifths and octaves with a final "wrong note" that creates a melodic tritone. This tritone hints at the fallibility of "the system," both musical and mechanical (see example 10.2).⁵⁶

More curious still, for a hit song, is the alternation between sung and spoken lyrics. The sung verses, pitched above the riff but narrow in range, dispassionately tell of an encounter with a mechanical male "rent-a-friend," who can also serve as a sexual companion. The double-tracking of Numan's reedy voice creates an unreal, vocoder-like quality to the singing, with moments of noticeable delay that split his voice in two. The singing voice is thus barely readable as human.

[Sung over main riff]
 You know I hate to ask
 But are "friends" electric?
 Only mine's broke down
 And now I've no one to love

The spoken verses, by contrast, sound entirely human. Against a new hollow pattern of electronic pitches (arpeggiated seventh chords with missing thirds), Numan recites sentimental words full of abject memories and feelings of longing, betrayal, and loneliness. Music, here, seems to fail at affective expression. Humanness resides in simple speech.

[Spoken]
 So I find out your reason
 For the phone calls and smiles

⁵⁶ Numan himself referred to the riff as having a "wrong note." See Numan with Malins, *Proving to the Aliens*, 63. See also Cateforis, *Are We Not New Wave?*, 171–72.

And it hurts
 And I'm lonely
 And I should never have tried
 And I missed you tonight
 It must be time to leave
 You see it meant everything to me

It is unclear who or what is the lost object of desire – the broken electrical "friend" or a deeper loss of human contact. Or perhaps such emotions and desires – that can be turned on and off – are part of the electronic future. Indeed, the first spoken verse ends with the line "I don't think it meant anything to you," while the second ends with the line "You see it meant everything to me." This is a zero-sum emotional universe that betrays the thin line between mechanized humans and sentient robots.

Within the musical context of early synthpop artists like The Human League and Gary Numan, it is small wonder that *Melody Maker* called Wendy Carlos a "human synthesizer." Carlos had indeed seemingly achieved the critical objective of synthpop: to become a machine, to synthesize an "unnatural" human, albeit one that finally conformed to gender. In 1979, normative gender and heterosexuality seemed almost remnants of the past – a retrosexuality to wax nostalgic about, resynthesize, or stomp out altogether. And yet, at the height of synthpop in the early 1980s, female vocalists emerged with warm and soulful singing against the icy, bubbling electronic beats. In "Don't Go" (1982) by the British group Yazoo (known as Yaz in the US because of a name conflict with a record label), the R&B vocal style of singer Alison Moyet fits squarely within a pop sensibility, while also clearly relating to the sound of 1970s disco divas. Moreover, the sentiment seems authentic: words of sexual obsession and addiction match the urgency and passion of the delivery. Was synthpop becoming human and embodied? Not according to the album cover, which showed that synthpop was still the music of nonhumans – or, rather, posthumans (see Figure 10.5).

Though the songs do not contain overtly homoerotic lyrics, the cover art for Yazoo's *Upstairs at Eric's* depicts a homosocial world of mannequins dressed in the gay-macho, or "gay clone" fashion of the day: muscle t-shirts, jeans, and boots.⁵⁷ Their bodies are severed at the waist, groins

⁵⁷ For more on gay clones culture and music, see Peraino, *Listening to the Sirens*, 176–84.



Figure 10.5 Yazoo (also Yaz), *Upstairs at Eric's* (1982).

and legs pushed some distance back from their torsos. Gender and sexuality – here specifically masculine and gay – are a locus of disruption, and, quite literally, dislocation. While the voice pulls us toward the human, the album cover jerks us in the opposite direction, confronting us with the disjunct body, broken down, as it were, into components. Are we to hear the impassioned vocals of “Don’t Go” as merely another module, patched into the synthesized whole? It is hard not to, especially in light of the fact that keyboardist Vince Clarke replaced vocalist Alison Moyet in 1985 with another soulful singer, Andy Bell, to form the synthpop duo aptly called Erasure.

The rise of synthpop and its emblems of alienation and difference reflect a cultural moment particular to the dawning of the 1980s, when a surge of encroaching technology provoked both fascination and horror. New

personal computers, video games, answering machines, and cheap, user-friendly synthesizers allowed widespread access and implementation of technology while revealing at the same time new forms of human obsolescence.⁵⁸ Yet it would seem that the synthesizer’s affiliation with such identity crises began at least a decade earlier, when Carlos and Elkind threatened classical music with their Bach *contra naturam* and their technological Beethoven qua fascistic governmental control. In the midst of escalating Cold War tensions and dehumanizing government policies that paid less attention to quality of life than to missile defense systems, the synthesizer brought a suspicion of the perversely mechanical to an activity thought to be entirely the province of the human – making music. In the science fiction of synthpop, humanity is reduced to a list of basic components: bodies, gender, sexuality, desire. But the play of gender and sexuality in synthpop was ultimately not about creating a gay-identified music. On the contrary, synthpop provided a sustained meditation on sexuality detached from identity, desire dislocated from gender. Tropes or innuendos of same-sex desire served to throw desire itself into relief, to defamiliarize it. This alien desire, in turn, was a direct attack on corporate pop music by way of an attack on pop’s own particular fascism – hetero-normative love.

The association of same-sex desire or gay identity with dehumanized androids and mannequins could be considered a menacing development, especially in the years just before the AIDS epidemic, were it not for the fact that the mid-1980s saw a second generation of synthpop artists – Bronski Beat, Frankie Goes to Hollywood, Pet Shop Boys, and Andy Bell of Erasure – who really were gay and, more importantly, increasingly marketed themselves as such, without the mediation of robotic androgyny.⁵⁹ The shift from alien to overt desire was due in part to early synthpop’s ideal of the human synthesizer, which exposed

⁵⁸ On the effect of affordable synthesizers and other music technology, see Cateforis, *Are We Not New Waves?*, 152. Théberge, following the Marxist theories of British Cultural Studies, argues that technology functions as a commodity that engenders behaviors and approaches in musicians; thus the consumption of technology drives creation, rather than creation driving the production of technology. See Théberge, *Any Sound You Can Imagine*, esp. 1–13, 51–71.

⁵⁹ For a discussion of some of these bands, see Aaron Lecklider, “Between Decadence and Denial: Two Studies in Gay Male Politics and 1980s Pop Music,” *Journal of Popular Music Studies* 16:2 (2004): 111–41; and Fred Maus, “Glamour and Evasion: The Fabulous Ambivalence of the Pet Shop Boys,” *Popular Music* 20:3 (2001): 379–93.

the tension between complex human emotions and the mechanical social interface – the “controllers” – that are gender and sexuality. Synthpop artists pulled out and confused all the patch chords of identity; it was left to the synthesizer to bring these disconnected circuits back together again.

11 | “Pranksta rap”: humor as difference in hip hop

CHARLES HIROSHI GARRETT

In March 1983, the Beastie Boys recorded “Cookie Puss,” their first hip-hop track of a musical career that began in 1979 and spanned more than thirty years. There was little indication upon the release of the subsequent *Cookie Puss* EP that the Beasties would later be recognized as significant musical artists who gained induction into the Rock and Roll Hall of Fame in 2012. On the contrary, coming from a group that until that time had been affiliated more closely with New York’s punk scene, the song literally delivered a practical joke. “Cookie Puss” revolves around excerpts from prank phone calls made by the Beasties to a branch store of Carvel, the retail ice-cream chain. The title refers to a character featured on an ice-cream cake sold by Carvel, and the song captures the Beasties calling unsuspecting and confused employees, demanding to speak to “Cookie Puss.” Although the track does not feature the distinctive rapping for which the Beasties would become known, it is built on a hip-hop beat and overlaid with snippets from their taped phone calls, as well as brief samples from the comedian Steve Martin’s album *A Wild and Crazy Guy* (1978). Presenting their childish humor accompanied by the voice of a popular stand-up comedian, the Beasties’ exclamations become increasingly insistent, obnoxious, violent, and sexist as they reach the climax of the single. Built on male adolescent humor that proved very appealing to some listeners and just as offensive to others, the track became their most successful release to that point in their career, and it received enough airplay on college radio stations to convince them to explore further directions as rap artists.

Members of the group later described “Cookie Puss” as a childish experiment and a dumb joke, but that did not prevent them from re-releasing it with other early recordings as part of the compilation *Some Old Bullshit* (1994). In addition to having accrued commercial appeal for a fanbase that had grown exponentially, these tracks offered a glimpse of their musical development and acknowledged how important a prankster attitude had been and remained to their appeal. After the success of “Cookie Puss,” the Beasties sought to meet more conventional expectations for rap artists by hiring a DJ, Rick Rubin, to enhance their live shows.