

# Spirit of the Bauhaus in electronic sounds

Florian Schneider-Esleben, 1947-2020

David Cunningham

‘There is no beginning and no end in music . . . Some people want it to end but it goes on’

Florian Schneider, 1975

Not long after the death of Florian Schneider was announced in May of this year,<sup>1</sup> I re-watched the 1979 film *Radio On*, directed by Chris Petit, and co-produced by Wim Wenders. A singular attempt to graft a Wenders-inspired German version of the US road movie onto a bleak, run-down, black and white English landscape during the dog days of the Callaghan government, the film opens with a long tracking shot that creeps slowly around a dimly-lit flat in Bristol, before coming to rest on the feet of a suicide in his bath. Structured, like most of *Radio On*, as much by its late 1970s’ musical soundtrack – in this case the English-German version of David Bowie’s six-minute *Heroes/Helden* recorded at Hansa Studios in Berlin – as by any conventional narrative drive, the opening shot lingers, briefly, on a handwritten sign pinned to a bedroom wall:

We are the children of Fritz Lang and Werner von Braun.  
We are the link between the ‘20s and the ‘80s. All change in society passes through a sympathetic collaboration with tape recorders, synthesisers and telephones. Our reality is an electronic reality.

The words come from Kraftwerk, the group which Florian Schneider founded with Ralf Hütter in Düsseldorf in 1970 – a fitting reference, given *Radio On*’s larger fixation on German music and cinema as an alternative to the hegemony of Hollywood’s dreamworlds and an increasingly desiccated Anglo-American rock still in thrall to the mythos of ‘the sixties’. Petit has claimed in interviews that he became a music journalist solely with the intent of meeting Kraftwerk. And certainly their music

has an unusually prominent role in the film. Before setting out to drive from London to Bristol, through an England shadowed by terrorism and the war in Ireland, the film’s protagonist is introduced opening a package from his dead brother containing three tape cassettes of the band’s 1970s albums, *Radio-activity* (1975), *Trans-Europe Express* (1977) and *The Man-Machine* (1978): sounds and images of a modernity starkly at odds, the film suggests, with the nostalgia of the pub rock which makes up the bulk of the British part of the film’s soundtrack.

This sense of Kraftwerk as an embodiment, musically and existentially, of the very image and *idea* of the new is, of course, one which resonates not only through their extraordinary influence on the ‘electronic reality’ of the music emerging from the industrial towns of Manchester and Sheffield around the same time as Petit’s film, but more strikingly, and far more peculiarly, in the black metropolises of the South Bronx, Miami and Detroit. Partly this was, in the seventies and early eighties, a function of their very otherness as Germans working in a cultural form still very much defined by an Anglo-American identity – *Trans-Europe Express* was, the New York DJ and rapper Afrika Bambaataa recalled, quite simply ‘one of the weirdest records I ever heard’ – an otherness which is not only foregrounded by *Radio On*, but which was deftly mobilised by Hütter and Schneider themselves in their self-presentation throughout the period. But it also connects with a certain idea, or ideal, of pop music itself, as that artistic form which, in its inextricable dialectical relations to a mass technological culture mediated through the form of the commodity, has made the excitement of the ‘new’ intrinsic to its very historical dynamic and artistic meaning. It is not surprising, then, that, in seeking to describe a sense of the inertia of the musical

present, for which the idea of pop as a privileged vehicle of the new has apparently come itself to be an object of nostalgia, the late Mark Fisher should ask specifically, ‘Where is the 21<sup>st</sup>-century equivalent of Kraftwerk?’<sup>2</sup>

What is certainly true, as the flood of tributes that followed Schneider’s death reminded us, is that few if any artists of the latter part of the twentieth century so emphatically embraced (and realised) a demand to be ‘absolutely modern’ as *the* defining axiom of their work. In part this was a function of the unusual degree to which they conceived of their own artistic logic in terms of its immanent engagement with the latest technological means of musical production; something which seems to have been particularly pushed by Schneider himself. (Largely responsible for the group’s use of electronic vocal synthesis, in 1990 he was co-applicant for a patent at the European Patent Office for the Robovox ‘system for and method of synthesising singing in real time’.<sup>3</sup>) ‘The music of a technicised world can only be made on instruments that have been devised by a technicised world’, as the press release for their 1981 album *Computer World* asserted. Yet, as the handwritten sign in the opening scene of *Radio On* implies – with its references to the ‘link between the ‘20s and the ‘80s’, to ‘tape recorders, synthesisers and telephones’, as well as to Fritz Lang and Werner von Braun – the specific articulation of the modern generated by their art was a complex one, tied up with a return to past motifs as much as with a creative destruction of the ‘old’, and with the discontinuous and conflictual legacies of twentieth-century German and Central European history from which they emerged. How pop’s specific affirmation of the new in the wake of the rupture of fifties’ rock ‘n’ roll – a fundamentally modern conception in its broadest and most basic sense – relates to what is customarily taken to be signified by that more loaded term *modernism* remains thus a difficult question, particularly where Kraftwerk are concerned. Yet it is also what makes their music so important, as an unlikely meeting point of the legacies of European modernism and the historical avant-garde with what Paul Gilroy calls those ‘countercultures of modernity’ embodied in the sonic experimentalism of the Black Atlantic.

Born in 1947 in the French occupation zone in southern Germany, before moving to Düsseldorf at the age of three, Schneider was part of the generation of Germans born immediately after the Second World War, and

hence of what his musical partner Hütter, born a year earlier, called a ‘generation with no fathers’. The duo’s conception of Kraftwerk as ‘the link between the ‘20s and the ‘80s’ must obviously be understood in this light. As Hütter put it in a 1982 interview for an Austrian TV documentary: ‘The culture of Central Europe was cut off in the thirties, and many of the intellectuals went to the USA or France, or they were eliminated. We are picking it up again where it left off, continuing this culture of the thirties’.



While the specific words here are those of Hütter, everything suggests that it was probably Schneider who first initiated this identification. In the photograph for the front cover of their third album, *Ralf und Florian*, from 1973, a boyish-looking Hütter is long-haired and dressed in the standard bohemian uniform of the early seventies, but the short-haired Schneider is already wearing a well-cut suit and tie that is more Thomas Mann than Mick Jagger. (Visconti’s *Death in Venice*, the middle part of his ‘German trilogy’, had appeared two years earlier.) As bandmate Wolfgang Flür, who joined in the same year, recalled, by the time of *Autobahn*, released in 1974, the group as a whole had ‘adopted the “German” image at Florian’s suggestion ... The Discreet Charm of the Bourgeoisie’. Just as importantly, musically, while *Ralf und Florian* still has one foot firmly planted in the forms of lengthy ‘open’ improvisation and tape manipulation characteristic of their first two albums, often centred around Schneider’s own heavily electronically-treated flute playing, and exemplary of much German experimental rock of the period – works that Schneider would later dismiss as mere ‘archaeology’ – one can hear in tracks like

'Kristallo', with its pulsating synthesised bass and simple *romantische melodie*, a shift towards a very different idea of the modern than that pursued by existing models of 'art rock'.

Son of Paul Schneider-Esleben, a prominent post-war modernist architect, Schneider's own 'fatherless' status was evidently complicated. Schneider-Esleben senior – Florian began omitting the 'Esleben' around the mid-1970s – was himself instrumental in the recovery of *Neue Sachlichkeit* and Weimar-era design practices in buildings such as the Mannesmann head office in Düsseldorf – the first steel frame structure with a curtain wall to be built in Germany – and later collaborated with a new generation of neo-avant-garde artists including Joseph Beuys (then a Professor at the Kunstakademie Düsseldorf), who was a frequent visitor to the Schneider-Eslebens' villa. Of Schneider's father's wartime activities, the *Neue Deutsche Biographie* says simply that he 'participated' in the war from 1939-45, suspending his studies at the University of Applied Sciences in Stuttgart. Michael Rother, guitarist in an early three-piece incarnation of Kraftwerk with Schneider and Klaus Dinger – who played a series of remarkably aggressive concerts while Hütter was absent from Düsseldorf completing his own architectural studies<sup>4</sup> – recalled him as 'a nasty, famous and rich guy ... very unpleasant, bullying'. Whatever the truth of this, Schneider's wealthy background certainly contributed not only to Kraftwerk's capacity to acquire the most advanced musical technology during their early years – as Flür observed: 'Ralf and Florian ... always had to have the newest tools' – but also the unprecedented autonomy that they managed to ensure for themselves once they had established their own Kling Klang studio in a rundown area of Düsseldorf.<sup>5</sup>

Generationally, Schneider and Hütter's connection of their work to a culture 'cut off in the thirties' identified them with a number of German artists working, across a range of different media, from around the mid-1960s. As John Patterson has written of the contemporaneous films of Wenders, Rainer Werner Fassbinder, Werner Herzog, and others (all born in the early to mid-1940s), for an immediate post-war generation in particular, seeking to reinvent a German cultural identity in the wake of Auschwitz, there was little choice but to self-consciously assume the role of representatives of an artistic 'culture with no fathers (except the Nazis), only grandfathers

(Murnau, Pabst, Lang)'.<sup>6</sup> From New German Cinema's declaration that '*Papas Kino ist Tod*', to the search for pre-World War Two artistic models in the works of artists from Alexander Kluge and Gerhard Richter to Berndt and Hilda Becher (one of whose photographs of an electric transformer adorns the inside cover of Kraftwerk's first album), this motif of a 'fatherless' generation dominates much West German art of the 1960s and 1970s. As Hütter put it: 'In the war Germany was finished, everything wiped out physically and also mentally. We were nowhere. The only people we could relate to, we had to go back 50 years into the '20s. ... [W]e certainly represent the generation with no fathers'.

Famously, Wenders' 1976 film *Kings of the Road*, dedicated to Fritz Lang, ends with a half-lit neon cinema sign reading *Weisse Wand*: white wall or screen, blank canvas, *tabula rasa*; what, in other works of the time, was termed a *Nullpunkt* or *Stunde Null* (zero hour). In this Malevichian demand for a radically new beginning, the question of 'what it means to identify oneself as a German, what it means to say "*ich*" and "*wir*" in a Germany that still finds itself under the shadow of the Holocaust', also becomes, however, a search for what Eric Santer has termed such 'stranded objects' as might yet be re-collected from 'a cultural inheritance fragmented and poisoned by an unspeakable horror'.<sup>7</sup> It is this that gives the search for a series of modernist 'grandfathers' of the 1920s and '30s its singular historical dynamic:

To be able to feel any bonds at all, we had to go back to the Bauhaus school. It sounds strange but to continue into the future we had to take a step back forty years. The Bauhaus idea was to mix art and technology. An artist is not an isolated creature that creates for the sake of creation, but as part of a functional community. In the same way we are a kind of musical workers. The spirit of Bauhaus in electronic sounds ... Our roots were in the culture that was stopped by Hitler.

Such 'stepping back' has often been characterised as a kind of 'retro-futurism', a nostalgia for the lost futures of early twentieth-century modernism and utopian fiction in Kraftwerk's work.<sup>8</sup> Yet it can also be construed as continuing a project to reconnect post-war culture in the new German Federal Republic with a pre-war modernism that began almost as soon as the war was ended, and which is exemplified in both the foundation of the Darmstadt International Music Institute in 1946 and the

establishing of Documenta in Kassel in 1955. Whereas, however, the emphasis in such immediate Cold War institutions was on securing German artists' reintegration into a purposely 'depoliticised' mode of formal(ist) abstraction – rigorously stripped of any pre-war associations with socialism or investment in mass culture – as part of what Ian Wallace calls a general 'cultural rehabilitation process' against both the Nazi past and the form of Stalinist Communism being established in the GDR,<sup>9</sup> the cinema and music emerging in the late 1960s marked an attempt to reconnect with a rather different modernism, and, hence, a significantly different cultural politics *per se*.

The 'idea to mix art and technology' played an evidently central role here, and it is no coincidence that it is specifically in those forms definitive of an era of mass technological reproducibility – recorded music and cinema – that this is most productively played out in much West German art of the 1960s and 1970s. In itself, this has often suggested parallels with the Weimer era and its dominant interests in the technological arts of radio, film, photojournalism and documentary. Indeed, such is a key aspect of not only Kraftwerk's specific retrieval of 'the spirit of the Bauhaus', but also of a far more general emphasis on art's immersion in the everyday that runs throughout their work:

We just find everything we do on the streets. The pocket calculator we find in the department stores. The autobahn we find in the first five years of our existence, when we travelled 200,000 kilometres on the autobahn in a grey Volkswagen. So everything is like a semi-documentary. 'Autobahn' we made with the image that one day our music would come out of the car radio. 'Radioactivity' came about from the combination of radiation and radio.

Musically, this 'semi-documentary' relation to the social and technological forms of quotidian modernity is manifested in particular, from *Autobahn* onwards, by the increasing incorporation of directly mimetic everyday sounds into the structure of such pieces: the Geiger counters and radio static of the album *Radio-activity*, the engine and car horn noises that punctuate the 'motorik' beat of 'Autobahn', the electronic bleeps of 'Pocket Calculator' (generated by Schneider's Casio fx-501P programmable calculator), the synthesised moving train and bicycle chain noises used as the basic rhythm tracks of 'Trans-Europe Express' and 'Tour de France'. Exem-

plary of a Baudelarian lineage of modernism dedicated to the capturing of 'the special nature of present-day beauty', here, the sound-worlds generated by technology are shaped as a means of immanently registering and mediating fundamentally new modes of *social* experience as characteristic of a technicised modernity more broadly. Through reflecting upon these as form, they are thus made constitutive of the artwork's own historical meaning and value.



It is this that characterises, among other things, what both Hütter and Schneider described as the 'travelling form' of much of their music: 'Just keep going. Fade in and fade out rather than being dramatic or trying to implant into the music a logical order ... In our society everything is in motion'. Formally, from the title track of *Autobahn* onwards (although already presaged in pieces like 'Kling Klang' on *Kraftwerk 2*), this conception manifests itself in a musical form dominantly built around overlapping patterns of repetition constructed through the layering or montage of short sequences of material, whether arpeggiated chords, 'riff-like' basslines or more abstract textures of electronic sound. Liberated from the standard verse-chorus structures of 1960s pop, such layering – made increasingly possible in the late 1970s by new 'sequencing' technology able to mechanically reproduce such sequences and sync them together – generates an impression of potentially infinite machinic form that is signalled in the titles of pieces such as 'Europe Endless' (1977) or 'Musique Non-Stop' (1986), and which has become a basic template of much electronic dance music since the 1980s.

Kraftwerk's unique foregrounding of the technological time and space of recorded sound on albums from

*Autobahn* onwards, and the programmed use of drum machines, computers or sequencers as motors of musical production, is easily readable, from this perspective, as something like a historical equivalent to the 1920s 'New Vision' affirmation of the industrialised eye and techno-human hybrids of photography and cinema – not only as compositional logic, but as a whole aesthetic of 'machine age' objectivism. 'We are the robots', as the opening track of *The Man-Machine* from 1978 most famously has it. Yet, to the degree that this self-consciously repeats a pre-war critique of, say, the subjectivist idealism of early Expressionism carried out by the *Neue Sachlichkeit* or by the Bauhaus post-1923, it is also, just as importantly, fundamentally *altered* via its re-inscription as a determinate negation of what was in the mid-1970s a very contemporary idea of the musician as expressive virtuoso, soul-baring troubadour or romantic rebel. This is why, to adopt a Benjaminian terminology, it is precisely the constellation of a specific *Now* – the 1970s of West German consumer capitalism – and a specific *Then* – the 1920s of avant-gardism and 'the first machine age' – that assumes such singular importance in Kraftwerk's work. It is the conjunction of a democratic and liberatory conception of the fusion of art and technology with a contemporary use of *new* technologies in pop that, above all, underpins the major works of the 1970s and early 1980s. To put it another way: if modernism as a general temporal logic of artistic production is embodied through the artwork's specific dialectic of newness and negation, then Kraftwerk's modernism is a function not so much of their references back to Constructivism or Bauhaus *per se*, important as these were, as it is of the ways their own music from around 1974 to 1981 can be understood in terms of its radical determinate negation of a whole series of existing constructions of 'rock': synthetic production *contra* gritty or confessional authenticity, cool detached objectivism versus libidinal passion, European planning versus American libertarianism, and so on – something which was intuitively grasped in their journalistic reception in the mid-1970s, if in usually negative terms.

Of course, such complex recovery and re-purposing of pre-war motifs as a means of intervening within a specifically post-war cultural field is also given an added geo-cultural dimension in what is, in this case, a self-consciously European reworking of an essentially North

American history and vocabulary. In an interview from 1991, Hütter noted: 'We woke up in the late '60s and realised that Germany had become an American colony. There was no German identity, no German music, nothing. It was like living in a vacuum. The young people were into the American way of living; cars, hamburgers and rock 'n' roll' – a comment that echoes a famous moment towards the end of *Kings of the Road*, in which, as the two men at the centre of the film get drunk in an abandoned U.S. army post, with 'Rock 'n' roll is here to stay' graffitied on the wall, one boozily complains 'The Yanks have colonised our subconscious'.



As a response to such a culture of the 'colonisers', with their cars and their rock 'n' roll, Kraftwerk's art was an obviously ambiguous one (as, indeed, was Wenders'). For to the degree that this was marked by an oft-expressed desire to re-establish a specifically modernist German or Central European identity – effaced once by the Nazis and then again in its displacement by 'the American way of living' – the medium through which it sought to do so came by way of cultural 'colonisation' itself. By seeking to create its own new constellations both with and *between* a 1920s avant-garde and a transfigured post-war form derived from imported North American popular culture, Kraftwerk sought thus to produce a form of post-war European modernism that would reclaim something of the radically democratic ambitions of a culture 'cut off' by fascism. But, in doing so, the contradictions inherent to capitalist mass culture also inevitably manifested as problems of form immanent to the artworks themselves.

Nowhere is this more apparent than in the self-conscious paradoxes inherent to Kraftwerk's frequent depiction of their music as a kind of *industriell Volks-*

*musik*, or an 'ethnic music from the Rhine-Ruhr region', as Schneider once playfully put it (much to the delight to David Bowie, among others). Musically, this is reflected in the avoidance of those blues-based modes characteristic of Anglo-American rock music in favour of what Michael Rother termed 'distinctly European harmonic and melodic contours' derived from *Volkslieder* and from romantic art music.<sup>10</sup> On *Radio-Activity*, for example, the closing track, 'Ohm Sweet Ohm', with its gentle opening vocodered vocal refrain, may have an electronic beat derived from the 4/4 rhythms of rock, but its elegiac melody has more in common with Schumann than the Rolling Stones, while, most blatantly, the main melody of the later 'Tour de France' single is directly filched from the 1936 *Sonata for Flute and Piano* by Paul Hindemith, a composer who himself moved from an advocacy of the *Neue Sachlichkeit* in music to the incorporation of folk songs; a piece that Schneider was presumably familiar with from his original training as a flautist.

Schneider's characterisation of Kraftwerk as an industrial 'ethnic music' may thus be profoundly tongue-in-cheek, but, here, the point seems very much to be the paradox itself: that it is the very forces of industrial production which necessarily destroy the nostalgic world of the *Volk* imagined in romantic and conservative *Heimat* culture (of which 'Ohm Sweet Ohm' is an obvious parody), transforming it instead into a 'homeland' exemplified, for Kraftwerk, by the modernity of the heavily industrialised Rhineland and pop's deterritorialised and technicised mass culture. If this recalls the Bauhaus' own struggles to reconcile the reinvention of craft traditions with the destructive energies of capitalist modernisation, as much to the point it also defines the contrary pushes and pulls intrinsic to the development of post-war pop music itself: a form born from the vanishing traditions of American folk music and the blues, but born into, and propelled by, the modernity of the industrial dynamics of mass commercial production and the new media landscapes of consumer culture.

Crucial as Kraftwerk's identification with the early twentieth-century avant-gardes may have been then – as a prism through which to critically situate themselves within mid-1970s pop culture – it was their ambition to work with and through specifically *contemporary* mass forms, from a (quasi-autonomous) site inside the spaces of industrialised popular culture, that has made them so

important to the music of the late twentieth and early twenty-first century.

Any attempt to understand Kraftwerk's extraordinary and seemingly improbable influence on black music – and on those black cultural forms that are, as Gilroy puts it, themselves 'both modern and modernist' – should no doubt have to start from here. Nowhere is this better exemplified than on the album *The Man-Machine* – as it happens, the first LP I remember buying, in a branch of Our Price records in Essex, sometime in the early eighties. Released in May 1978, less than a year after the bloody end to the so-called 'German Autumn' of attacks by the Red Army Faction, the album design, with its iconic cover photo of four dark-haired men dressed in red shirts and black ties standing diagonally on a suitably modernist staircase, is, the inside sleeve informs us, one 'inspired by El Lissitzky'. Emblematic of the short-lived hopes for an International Constructivism forged between Soviet Russia and Weimar Germany, the allusion to El Lissitzky's art accords with Hütter and Schneider's frequent conjoining of their music to the Bauhaus. But, alongside its references to early twentieth-century technological utopianism and the cult of the machine, *The Man-Machine* is also the first of Kraftwerk's works to engage explicitly with those forms of contemporary black musical expression that their earlier recordings (particularly *Trans-Europe Express*, released in the previous year) had begun to influence, in a kind of reciprocal exchange that would continue through the remarkable *Computer World* (1981) to their contacts with the Detroit techno collective Underground Resistance in the 2000s. Among *The Man-Machine's* credits is, significantly, one to Leonard Jackson, a black mixing engineer from LA, also known as Colonel Disco, who worked with ex-Motown luminary Norman Whitfield, and who was hired to give the record some extra sonic punch for dancefloor play. (Supposedly, Kraftwerk were in two minds about adding such an obviously non-Germanic name to their album credits, while Jackson, until he actually met Hütter and Schneider, was convinced, on the basis of its rhythm tracks, that the group must be black.) Most importantly, musically, one can hear in a piece like 'Metropolis', which closes the album's first side, Kraftwerk's incorporation – alongside its vocal allusions to Fritz Lang's film and the timbres of the *mensch-maschine* – of the metric rhythms of disco in its relentless sixteenth-note electronic bass and 'four-

on-the-floor' drum pattern. (Not coincidentally, Donna Summer's 'I Feel Love', produced by Giorgio Morodor, an Italian based in Munich, and released a year earlier, is its closest cousin in the disco of the period, to which it is probably indebted.) This is a useful reminder both that Kraftwerk's relationship with the sonic experimentalism of black popular music was a two-way street from early on, and that it was in the synthetic sounds and libidinal impulses of disco that their music first exerted an influence on U.S. dance music. *Trans-Europe Express* was awarded 'disco crossover of the year' in the *Village Voice* critics poll in 1977, and was repackaged for play in New York clubs as part of the 12" promo *Kraftwerk – Disco Best* in 1978, which included 'Showroom Dummies' and the title track from *Trans-Europe Express*, as well as 'The Robots' and 'Neon Lights' from *The Man-Machine*.

Such connections were developed further in the increasingly sophisticated syncopated layering of drum machine and synthesiser sequences on the 1981 album *Computer World*, in pieces like 'Home Computer', 'It's More Fun to Compute' and 'Numbers'. The latter, in particular, has probably been Kraftwerk's single most influential track on the music of the last forty years, built on Karl Bartos' drum programming but composed, in part, around Schneider's experiments with a frequency shifter and the new Texas Instruments hand-held translator from which the syncopated counts in various languages that structure the track are generated. (Rendering abstraction somatic, indeed danceable, the piece thereby amounts to a revenge of Kracauer's mass produced Tiller Girls in popular art itself.) Combined with the melody from 'Trans-Europe Express', it is a recreation of the rhythm track to 'Numbers' that famously propels Afrika Bambaataa's 'Planet Rock', released in 1982; a record whose own influence reverberates through the electro of the early 1980s to the magnificent 'Trouble Funk Express' (1984), by the Washington go-go band Trouble Funk, to the R&B of the 2000s. But the sounds of *Computer World* turn up everywhere in house and techno, from the proto-Detroit techno of 'Shari Vari' (1981) by a Number of Names to Cybotron's 'Clear' (1983), both of which borrow heavily from 'Home Computer', to innumerable later pieces by Juan Atkins, Derrick May, Carl Craig, Underground Resistance, Drexciya, and others.

Of course, placing a group of (very) white, privileged, Mitteleuropean men at the centre of what are profoundly

African-American forms carries with it some obvious dangers – to say the least. And plenty of other precedents can be found in the likes of Funkadelic and Parliament, as well as in disco itself. But the contrary impulse to downplay this influence, as well as denying the rather obvious evidence on the part of the musicians themselves, can be equally problematic, where it assumes a certain essentialised identity of black music or experience into which Kraftwerk's modernism couldn't possibly fit. ('I don't think they even knew how big they were among the black masses in '77 when they came out with *Trans-Europe Express*', Bambaataa has remarked.) Indeed, it was the very 'futurism' of a rich vein of existing black music, from Sun Ra to George Clinton, that probably made Kraftwerk's modernism resonate to a black urban audience in a way, tellingly enough, that they rarely did for a white mainstream rock audience in the U.S. At the same time, unashamedly Eurocentric as Kraftwerk may have been in the 1970s (for all their love of the Beach Boys and James Brown), this otherness or what Bambaataa terms their 'weirdness' was also surely part of the appeal. (A similar point might be made for the more or less contemporaneous fascination of another disco-funk band, Chic, with the 'art rock' of Roxy Music.) Indeed, despite the political and artistic radicalism of second-generation producers like Drexciya and Underground Resistance, the original Detroit techno artists – the so-called Belleville Three of Atkins, May and Kevin Saunderson – associated their own attraction to Kraftwerk (unlike the hip hop audience in the housing projects of the South Bronx) partly with their suburban *distance* from Detroit's inner city and an aspiration to an imagined European elegance and chic.<sup>11</sup> The 'Shari Vari' referenced in the title of A Number of Names' 1981 track is itself a reference to the Charivari clothing store that championed European and Japanese designers.

Given this complex and multiple influence, it is not surprising perhaps that Kraftwerk have often been compared by journalists to the Beatles in their impact upon popular music since the 1980s. But a more apt comparison in this respect would probably be with a figure like Chuck Berry, and not only because of a shared artistic obsession with the social and technological forms and experiences of modernity. Just as Berry's lexicon of guitar riffs and textures is so ubiquitous across 'rock', from the Rolling Stones and Jimi Hendrix to the Sex Pistols and

Pere Ubu, as to become almost unnoticeable, so Kraftwerk's music has, particularly via digital sampling, become akin to a kind of collective electronic database of rhythms and timbres disseminated throughout recent music. This has to be set against the relative lack of productivity of the group themselves since the 1980s. Released in 2003, *Tour de France Soundtracks* is a better sounding and more interesting album than *Electric Café* (1986), with its largely ill-advised attempts to incorporate early digital technologies and 1980s' pop song structures, and its vague invocations of a pre-war European café culture. But it is also the only more or less genuinely new music that Kraftwerk have released in more than three decades. Since Schneider himself left the group in 2008, Hütter has concentrated on what has become effectively an archival project devoted to updating the technological presentation of the existing material and on performing the back catalogue live. Schneider meanwhile surfaced only once before his death with the charmingly slight 'Stop Plastic Pollution' in 2015, produced with Dan Lacksman of the Belgian group Telex, in support of an environmental charity. Ralf and Florian had been divorced for some time when the latter died, but the definitive end to what Hütter once called their 'electronic marriage' also brings to an end a certain idea of pop music as modernism itself.

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## Notes

1. Schneider died of cancer on 21 April 2020. The following tribute draws in parts upon an earlier essay: David Cunningham, 'Kraftwerk and the Image of the Modern', in *Kraftwerk: Music Non-Stop*, eds. Sean Albiez and David Pattie (London: Bloomsbury, 2011), 44–62. Albiez and Pattie's collection as a whole remains the best overview of Kraftwerk's work.
2. Mark Fisher, *Ghosts of My Life: Writings on Depression, Hauntology and Lost Futures* (Winchester: Zero, 2014), 9. For a different but not unconnected genealogy of an idea of rock or pop as modernism to that sketched here, see David Cunningham, 'Rock as Minimal Modernism: Lou Reed, 1943-2013', *Radical Philosophy* 183 (January/February 2014), 69–72.
3. Buried away on youtube one can also find Schneider's 30-second vocoder ode to the Doepler A100 synthesiser entitled 'Electronic Poem': <https://www.youtube.com/watch?v=pLRgjzEjFkM>

4. One can find on youtube some live 1971 recordings of Schneider, Rother and Dinger, which, on pieces like 'Heavy Metal Kids', develop the sound of 'Ruckzuck' from the first Kraftwerk album while pointing heavily in the direction of Rother and Dinger's future band, Neu!: <https://www.youtube.com/watch?v=D8emDpWEBzE> and <https://www.youtube.com/watch?v=ITP-Clo62Dg>
5. By contrast to most Anglo-American groups of the era, the rich period of German experimental rock in the early 1970s – including the likes of Can, Faust, Tangerine Dream, Popol Vuh, and others – often relied on access to similar resources for self-production. Like Kraftwerk at Kling Klang, Can, for example, began to produce their own recordings, with bass player Holger Czukay (a former student of Stockhausen) acting as engineer and technician, in a castle called Schloss Nörvenich, before building their own Inner Space studio in a cinema in Weilerswist outside of Cologne.
6. John Patterson, 'A film without a cinema', *The Guardian*, 2 October 2004, <https://www.theguardian.com/books/2004/oct/02/featuresreviews.guardianreview13>
7. Eric Santer, *Stranded Objects: Mourning, Memory and Film in Postwar Germany* (New York: Cornell University Press, 1990), xiii. In the case of Kraftwerk, the kinship with Fassbinder, who would frequently drive his actors crazy by playing *Autobahn* and *Radio-activity* on repeat while filming, was particularly strong. The title track of the latter album, for example, soundtracks a key scene in the film *Chinese Roulette* (1976).
8. See, for example, the recently published biography by Uwe Schütte, *Kraftwerk: Future Music From Germany* (London: Penguin, 2020).
9. Ian Wallace, *The First Documenta 1955* (Berlin: Hatje Cantz, 2012 [1987]), 5. As Wallace notes, Documenta in the 1950s 'crystallised and consolidated' a larger process in this sense (5): 'The identification of modernism with individualism and freedom of expression, and abstraction with internationalisation, was a common [Cold War] language of legitimisation for liberal factions in both the U.S. and Germany' (7). Missing from the first Documenta's presentation of modernist continuity were thus the Constructivists, Berlin Dada, much of *Neue Sachlichkeit*, the Weimar revolutionary left, and, indeed, the more political elements of the Bauhaus.
10. Quoted in Rudi Esch, *Electri-City: The Düsseldorf School of Electronic Music* (London: Omnibus Press, 2016), 70. See also, for example, David Bowie's comment in a 2001 interview that: 'What I was passionate about in relation to Kraftwerk was their singular determination to stand apart from stereotypical American chord sequences and their wholehearted display of a European sensibility through their music'.
11. See Dan Sicko, *Techno Rebels: The Renegades of Electronic Funk* (New York: Billboard, 1999); Kodwo Eshun, *More Brilliant Than the Sun* (London: Quartet, 1999); Sean Albiez, 'Post Soul Futurama: African American Cultural Politics and Early Detroit Techno', *European Journal of American Culture* 24:2 (2005), 131–52.