The road to plunderphonia

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In the pages that follow I will focus on something often neglected in accounts of musical innovation: the critical role of memory on which both the origination and reproduction of music turns. I will try to unpick to what extent the specific nature of a memory system shapes the music that it mediates, with particular reference to the third and newest of these systems: sound recording.

PART I

‘You must remember this…’

Sound is energy and, like the time it sounds in, pure process; it is always vanishing, a condition both fundamental to its nature and, until very recently, axiomatic. This apparently immutable fact determined both our understanding – and the history – of music, from the first emergence of human consciousness until a little over a century ago; and underpinned its status as an art, quintessentially, of presence. So, although writing can intervene to shore up structure and complexity against loss, it does so at the cost of losing everything but structure and complexity. And since writers can work only with the imaginary and not the real, notation is always about music, but never is music.

Sound recording, on the other hand, remembers every audible aspect of an event, retaining not only its architecture but the minutiae of its articulation, timbre and

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1 This is the third part of a larger essay that examines the three memory systems associated with music to date, the first and second of which are, respectively, biological memory – what mind and body can retain and reproduce unaided – and written memory – instructions that can be stored as code. The three are intimately related and, of course supplement rather than annihilate one another. The introduction of a new system has always driven revolutionary transformations in human culture, and analysis of their effects seems to add flesh to Marshall McLuhan’s observation that ‘the medium is the message’.

2 Section quotes are all from Herman Hupfield’s song ‘As Time Goes By’, 1931.

3 I am aware of the Platonic argument that a score is the real music and a performance merely a flawed instance of it, an idea reinforced by the abstract nature of writing. There has long been an association between music, divine geometry, perfect ratios and the music of the spheres that believes it is the relationship between the elements that constitutes the essence of a composition, its instrumentation being a secondary detail. This is one of the reasons why so much Baroque music seems to work so well, irrespective of what instrument(s) it is played on. But do we believe that ideas are more real than things? Certainly, in much of today’s music, it is very much the specificity of the sound that matters, and this cannot be reduced to a perfect idea. It has to be exactly what it is, even one small change and it becomes something else. I would want to insist that music be a sounding event. So if it doesn’t sound, it isn’t music. And a score doesn’t sound, any more than an imaginary form.
style. And while biological and written memories work through the generation of new performances – keeping their contents permanently in flux – a recording is complete and closed and can take no account of the conditions of its reproduction. It can deliver but not receive. And it will never change, making it the first significant form of musical communication in which direct interpersonal negotiation plays absolutely no part. A recording connects two autonomous one-way activities: on one side, the shaping of adamantine objects, on the other, unalloyed consumption.

Nothing in the history of music had prepared musicians or listeners for these novelties, nor for the fractured relationships that accompanied them; and there existed no easy place for them in quotidian cultural life. In the ecosphere of music, recordings appeared as unprecedented sports and occupied no established niche. It should be no surprise then that in 1877, when Edison first heard the echo of his own voice floating up to him from a sheet of tinfoil, he had no philosophical, aesthetic or epistemological tools with which to grasp the full implications of his achievement. Nor that, in the face of the first phonograph recordings, musicians also failed to make any connection between the new technology and their own practice since they, better than anyone, knew that the essence of music was invested in shared time: in the unfolding of unique interpersonal events, the experiential force of which lay precisely in the impossibility of their repetition. It is not surprising, therefore, that the insubstantial simulacra that came wheezing out of early phonographs and gramophones seemed to musicians little more than a semblance of music – which they understood in much the same way Plato had understood an earlier, equally troubling, technology: writing – that is, from the position of an immediate consciousness of loss. And indeed, a bald comparison between the appalling quality of early phonograph recordings and the experience of live music – as if they could somehow be species of the same thing – made it easy to dismiss recording as an irrelevance or, at best, a toy. The deeper implications of this powerful new memory system, however, were all in place. As a memory of all sound, it swept away at a stroke every existing limitation to music-making that had formerly been imposed by instruments, notes, harmonies, acoustic spaces and performance practices; as audibility became the only quality necessary for something to become the object of aesthetic manipulation. And while this left the status of music relatively intact, it also quietly repositioned it as just one of many possible subsets of an emergent, and far broader, category – which, after Edgard Varèse, I will call sonic organisation – whose most intimate productions, to avoid an habitual confusion with music, I will henceforth refer to as listening objects.

And objects they are, since recording technologies create an impossible time-trap that turns sound, or its simulacrum, into a plastic material that can be worked, shaped and manipulated, and will then retain its final form indefinitely. For the first time in musical history composers could build permanent works out of sound itself, and performers too would acquire a measure of material immortality, since sound recordings trapped not merely performances but identities: the grain of the voice, the intimate relation of body to instrument, the personal investment of thought and feeling that comes embedded in every nuance of articulation and interpretation. In contradistinction to notation, one could even say that recording is a form of memory that privileges character, personality and uniqueness over, for example, rigour, architectural beauty and compositional logic. It remembers the singer more pertinently than the song.

Once reconstituted as a permanent substance, sound can be organised and rearranged at leisure, rather in the manner of painting or collage; it can be lifted out of one context and dropped into another; it can be taken apart. And once made independent of its source, it becomes free to expand into new semantic spaces and to assume a life of its own – and to evolve new ways in which to communicate.

II

Like writing before it, sound recording passed through various stages of rigour on its way to cultural dominance. At first, as a purely mechanical technology, it could reproduce only lo-fi linear transcripts of what it heard. But within fifty years electrification had brought improved fidelity and, more importantly, had introduced a working space – usually in the form of a mixing desk – between the microphone and the cutting head, with less technical accuracy than a score, because it only

4 Changes happen quickly in the case of biological memory, where each iteration is an unverifiable reconstruction; and rather more slowly in the case of writing, where it is sensibilities and cultural conventions that alter over long timespans, meaning that although the architecture of a piece may be recalled unchanged, past iterations and their conventions are still eventually lost and cannot regulate present interpretations.

5 If one discounts the occasional instances of mechanical musical toys, music boxes, calliopes, etc.

6 In Phaedrus, Plato (citing Socrates) laments that writing will undermine memory (he means biological memory), fearing that in the process it will induce a semblance of knowledge in place of true wisdom. True wisdom, he argues, can only pass through direct human contact. ‘If men learn this, it will implant forgetfulness in their souls; they will cease to exercise memory because they rely on that which is written, calling things to remembrance no longer from within themselves, but by means of external marks. What you have discovered is a recipe not for memory, but for reminder. And it is no true wisdom that you offer your disciples, but only its semblance, for by telling them of many things without teaching them you will make them seem to know much, while for the most part they know nothing; and as men filled, not with wisdom, but with the conceit of wisdom, they will be a burden to their fellows. (Plato, Phaedrus 275a-b)

7 Live music: this neologism tells the whole story. Until recording appeared this expression would have been pointlessly tautological.

8 Early instances would include musique concrète, electronic, electroacoustic, tape and computer musics; then soundscapes, Radio Art and plunderphonics. I think it’s best not to ask the word music to take on a semantic burden that would merely weaken and confuse it simply because we refuse to recognise that new forms of sound organisation need new descriptions, precisely in order to distinguish them from existing practices.

9 Or rather, event-objects, since – unlike paintings or sculptures, which exist in time – recordings are time.

10 A recording remembers Bach’s Cello Suite with less technical accuracy than a score, because it only remembers readings – individual performances, with all their quirks – and not the architecture as fixed on paper by its composer. In the ecosphere of recording it is the voice of Blind Lemon Jefferson that makes the greatest impact. More than the song, of which there may be many versions. The voice is his alone, its own only exemplar, and it is that to which his fellows must listen. (Plato, Phaedrus 275a-b)

11 By analogy with the mnemonic revolution that preceded it, one has only to think of the difference between the communicative strategies in an oral culture of storytelling and of the novel in a world shaped by literacy.
facilitating the individual manipulation and treatment of each independent input. The introduction of vinyl discs, stereophony and increasingly sensitive cutting heads oversaw further improvements in reproductive quality until, in February 1948, the guitarist Les Paul had a hit with ‘Lover’, opening up the possibilities of layering (sound-on-sound) and the simulation of impossible performances through the manipulation of recording and playback speeds.12 With this, recordings began more routinely to dissociate from the realm of apparent veracity. At almost the same time in the studios of Radiodiffusion Française, Pierre Schaeffer was working, also with gramophones, on what was soon to be known as musique concrète, a more abstract and radical departure from verisimilitude, introduced to a select few at a public concert at the end of 1948, but curiously not released on record, and therefore to the world, for another nine years.

In the 1950s, recording technology took another giant step as magnetic tape replaced mechanical engraveur. The gift of tape was – like that of optical film – to free the, 1997. Online at <http://www.ccxtler.com/ccxtler> then thirty-two – and upward – with the contents of each track completely separated on a single strip of tape. More heads, more tracks: first four, then eight, then sixteen, making discontinuous: stopped and started, dropped in and out of, broken off and resumed at a later date. Tape carried sound manipulation into a time-free zone: out of the world of theatre and storytelling and into the world of cinema and the novel. In addition, magnetic data, unlike the physical carving of a groove, could be erased and overwritten, allowing corrections to be made and sounds to be flown in and out at will. With two recording heads adjacentally mounted, two parallel recordings could be made on a single strip of tape. More heads, more tracks: first four, then eight, then sixteen, then thirty-two – and upward – with the contents of each track completely separated as accumulating surface noise permitted. There are something like eight layers in ‘Lover’. More innovative was his manipulation of turntable speeds. It is an artefact of recording that speed equals pitch. To create any harmonic interval it is simply necessary to calculate the speed ratio that produces that interval, so if the playback were at half speed, anything played along with it would play back at double speed and one octave higher if the sum were replayed normally. Manipulating recording and playback speed also alters the timbral brightness or depth of a voice or instrument, and can be used to simulate instruments that don’t exist: a slowed alto flute is not a bass flute; even if the note is the same, the timbre will be very different. In addition to make a brushed cymbal louder than a full orchestra, one needs only to increase its amplitude; to create a new instrument one has merely electronically or mechanically to alter the timbral structure – in the highest possible fidelity – of an unbroken performance: it takes hundreds of edits and the work of assembly could now be undertaken piecemeal; with no limit imposed on the time that could be taken.

By the time the configuration of tape, mixing desk and outboard effects was firmly established, the making of a record had become – because it was possible – a process increasingly of adjustment and fabrication. Simple documentation gave way to factitious creation, a process driven by the seductive combination of spatialised recordings and stereophony, which, between them, conjured up the virtual equivalent of a canvas on which all manner of fictive illusions could be made to appear.13 As with painting or writing, the work of assembly could now be undertaken piecemeal; with no limit imposed on the time that could be taken.

III

Once it has been electrically recorded, sound leaves real space and is released from the constraints and characteristics of the natural acoustics of the real world. As a pattern of fluctuating voltages, electrically or magnetically transduced sound becomes susceptible to electronic transformation, much as paint might be darkened to suggest shadow or shifted toward blue to indicate distance. Thus, with a simple box of components, electrical data can be processed to simulate the acoustics of the Grand Canyon, a small tiled room or an echoing grotto. And once, in the span of a single recording, composers begin routinely to locate different instruments and voices in different, and incompatible, acoustic spaces, spatial information, previously so fundamental to perception as a measure of scale, location and distance, becomes merely another sensory effect, and no longer a measure of the world.14 To make a brushed cymbal louder than a full orchestra, one needs only to increase its amplitude; to create a new instrument one has merely electronically or mechanically to process the recording of an old one; to conjure giant mandolins or miniature people, one simply regulates the recording or playback speed. In fact, there is practically no limit to the alterations it is possible to make to any recorded sound. All that remains then is to deploy this army of phantoms across the illusory perspective of stereophonic space to give body to an aural confection that may be engaging – and even familiar (a band singing a song) – but is nevertheless completely incompatible with acoustic reality.

12 ‘Lover’, recorded in 1947 was released in February 1948. Paul employed three basic techniques: overdubbing, processing and manipulating recording and playback speeds. Overdubbing he had been trying to interest the recording industry in since the thirties, without success, and the technique was almost never commercially used. It was simple enough: record a part onto a disc; play that disc back while playing another part along with it; and record the sum to a second disc. This process could be repeated for as long as accumulating surface noise permitted. There are something like eight layers in ‘Lover’. More innovative was his manipulation of turntable speeds. It is an artefact of recording that speed equals pitch. To create any harmonic interval it is simply necessary to calculate the speed ratio that produces that interval, so if the playback were at half speed, anything played along with it would play back at double speed and one octave higher if the sum were replayed normally. Manipulating recording and playback speed also alters the timbral brightness or depth of a voice or instrument, and can be used to simulate instruments that don’t exist: a slowed alto flute is not a bass flute; even if the note is the same, the timbre will be very different. In addition to make a brushed cymbal louder than a full orchestra, one needs only to increase its amplitude; to create a new instrument one has merely electronically or mechanically to process the recording of an old one; to conjure giant mandolins or miniature people, one simply regulates the recording or playback speed. In fact, there is practically no limit to the alterations it is possible to make to any recorded sound. All that remains then is to deploy this army of phantoms across the illusory perspective of stereophonic space to give body to an aural confection that may be engaging – and even familiar (a band singing a song) – but is nevertheless completely incompatible with acoustic reality.

13 The illusion of the real is just as much an illusion. To record a Beethoven symphony, for instance, all the tricks of the studio will be employed to hide the recording process and create the illusion of a simple, transparent transcription – in the highest possible fidelity – of an unbroken performance: it takes hundreds of edits and he takes and digital adjustments to fake that.

As both listeners, and makers, we have adjusted quickly, and for the most part instinctively, to these impossibilities, much as we accept the imaginary in stories, cartoons or paintings. As with trompe-l’oeil or Escher prints, our brains seem to have taken aural anomalies too in their stride, happily exchanging a world of facts for a world of hyperreal chimeras. The new opportunities this has extended to the fabricators of sonic events are prodigious, and have opened up entirely new fields of discourse, as performance and composition cease to be the sole loci of communication and engineering, editing and postproduction work join them as potential equals. Indeed, in many fields, raw performances are routinely discarded or radically altered as performativistic logic gives way to crafted, fictive and compositional logic; and as the integrity of an unbroken performance gives way to the integrity of a painstakingly fabricated illusion.

IV

To date there has been one more technological shift – from tape to digitalisation – that has rapidly accelerated the shift from documentation to fabrication. Digital recording systems don’t print sounds but analyse and convert them to binary code; instructions for their reconstruction *ab initio*. This code is protean and infinitely rewritable, and the opportunities it offers for the organisation and transformation of sounds are practically infinite.¹⁵

All these developments have their upside: the immense power ceded to artists to create whatever their imaginations can concoct. And their downside: the alienation and divorce from social contact that come as an inevitable consequence of moving culture into a virtual world populated by zombies and imaginary beings, no matter how sprightly and benign they may appear.

V

Like writing before it, sound recording has ushered in a paradigm change that has transformed every aspect of the production and reception of organised sound; it has irrevocably changed human consciousness and culture; it has underwritten the creation of entirely novel sonic intelligences and given birth to new aural artforms that demand, not only unfamiliar ways of listening, but a new aesthetics and revised theories of audio art. Early colonisers – musique concrète, electronic music, electroacoustic music and tape music – had, by the middle of the 1960s moved the sonic arts into uncharted territories although, driven by a kind of intellectual inertia, they still thought of themselves as species of music, as their names indicate. But within two decades, soundscape, radio art, sound-sculpture, installation work, plunderphonia and others, had opened up unprecedented, and unequivocally non-musical, sound-based genres – each the direct creation of – and entirely dependent upon – the divers mechanics of sound recording.¹⁶ Since then, a thousand aesthetics have contended and a thousand experiments bloomed – to the point, I suspect, that one could argue that the twentieth century, in its rush of sonic experiments and innovations, resembles, at least structurally, the fecundity of the thirteenth-century *Ars Nova*, Europe’s musical response to the liberation of an earlier but equally revolutionary musical mnemonic technology: stave notation. I mention this because, in its beginnings musical notation too was a simple documentary technology, and it too evolved slowly – and predominantly in the direction of greater precision. It was only during the destabilising upheavals accompanying feudal decline, emergent capitalism and growing secularism that notation was finally freed to realise itself as a generative, rather than a documentary, technology, giving shape increasingly to forms produced out of itself: forms that could never have evolved – and would not have continued to exist – without it.

One has only to replace the word ‘notation’ with sound recording, and ‘precision’ with fidelity in the sentences above – and add your chosen analysis of the roots of today’s social and cultural ferment – and the fit is plain. Sound recording has brought a qualitative not a quantitative change to the arts of sound, a change of paradigm – in witness to which one has only to consider the overwhelming mass of soundworks around us today that have been generated through, owe their origin to, and exist only as, recordings.

¹⁵ Indeed, to digress, digitalisation has already reduced three of our primary senses – sight, sound and touch – to a single informational state: sets of ones and zeros making them, as information, indistinguishable or interchangeable.

recording captures all these things and remembers them, accurately and forever. And while a score is a blueprint for an open and interactive event, a sound recording is the event, closed and deaf. It can speak but not listen. Yet, by capturing and reproducing a performer’s inward emotion, it is also, arguably, saturated with a kind of subjectivity; and in this respect at least, it embodies a kind of synthesis of biological and written memories.

Axis 2: Composition – Performance

I
As a memory not of instructions but of actual performances, sound recording is quintessentially a medium of composition for performers: a means for them to compose, and recompose, with their own performances. This is of particular interest when it extends to groups and collectives who may generate, construct, refine and assemble finished compositions through a shared process of discussion, suggestion, experiment, playing (collective, individual; directed, improvised), mixing and editing.

On the other side of the equation, for composers who work directly with recordings, and by ear, the studio becomes, effectively, an instrument and composition a species of slow-motion performance.

II
Although most performances are repetitions and interpretations of recalled or notated materials – a means of their extension in time – improvisations are pure performance and fully invested in their immateriality and evanescence (see Eric Dolphy’s comment above).

An ability to improvise is a skill fundamental to the production of all music mediated by biological memory, but it is only narrowly applied in music mediated by writing. With respect to sound recording, however, it is conflicted: as an accomplice, it conspires perfectly with the unique ability of recordings to remember what writing and recollection cannot – spontaneous invention, unrepeatable complexity, the character and grain of individual expression – but, as an act of resistance to recordings, it stakes its claim on the unassailable redoubt of presence. A recording may set an impossible standard of perfection; it may appropriate living music and compete with it in quality, convenience or accessibility; it may even seduce and satisfy – but it is dead. A recording is always of the past and must impose itself on a present that is obliged to adjust to it; an improvisation, on the other hand, is always an expression of pure presence – and the immediate product of all the conditions of its creation.

The studio emits the sounds composers organise, and has its own productive architecture, which has to be learned – in order to hear this, one has to do that – and it responds to its user’s touch. Like an instrument, it mediates between its user’s productive intent and its auditor’s receptive attempt.

PART II

‘… we must get down to earth…’

Axis 1: Objective – Subjective

I
Notation gives composers the power to create order, not to hone an experience. Experience is still controlled by performers, whose unique instantiations, like conversations, are expected summarily to evaporate. As Eric Dolphy said: ‘… after it’s over, it’s gone in the air; you can never capture it again.’ 17 We know he said this because he spoke it to tape at the end of his last recording session and it has echoed back to us from thousands of LPs and CDs since. We are back in Phaedrus territory here except, while Plato’s writing recalled only his words, Dolphy’s recording also preserved his voice, his mood and the audible content of the space around him. There is still a tendency to think of a recording as some kind of document of a thing in the world – as if it were a neutral reproducer, like a camera – and to associate it primarily with the preservation of music or speech. But a memory system is defined by everything it remembers, as well as by the specific form in which it reproduces what it retains. At base memory is generative and creative, not passive.

II
Before Edison, sound had no history. After Edison, stable rafts could be constructed out of frozen sounds and launched free of time, thereafter, neither to change nor disappear. The past that sound recording creates is a verifiable past, and with it is born an ever-growing army of revenants who will reliably rise on demand to speak again, even if it is only to repeat themselves. Endlessly. And they already outnumber the living – and haunt them, performers feel – and often are judged by, and expected to live up to, the crafted perfection of their and other people’s recordings. That said, this new memory has given music its first equivalents of the Odyssey and The Wasteland, The Great Dictator and Citizen Kane, The Fighting Temeraire and Picture with a White Form: enduring and complicated works that have been carefully crafted over time – in solitude or collaboration – which now palpably exist as fixed objects in the world.

III
Like notation, sound recording, as a memory, is an objective intermediary system – as opposed to biological memory, which is experientially subjective. But where notation is unable to store nuance, imperfection, emotion, inflection, timbre or tone, sound recording preserves it all.
II

In the early twentieth century, in a listening and dancing environment increasingly dominated by recordings, it was popular music that flourished. And it was the strong tradition that grew out of black American slave culture that adapted most flexibly to the unfamiliar ecosphere of recording because at root it was an oral culture. From the blues through jazz to rock, the adaptability and deep improvisational grounding of black music profoundly influenced all popular musical thinking and practice. And its offspring drove into unpopular terrain as well, in pursuit of new sonorities, greater expressivity, art status and autonomy. In both directions, popular and unpopular, it was improvisation that proved its sovereign strength.

By the second half of the twentieth century, inspired in part by the highly abstract, sonic landscapes characteristic of contemporary music, musique concrète and electronic music – as well as by the creative and compositional forms of listening that sound recording had brought into being – improvisational practice broke through into what was variously called ‘free improvisation’ or ‘spontaneous composition’, in its purest form a practice demanding that all musical material be created spontaneously, unconstrained by harmonic rules, tonal or rhythmic restrictions or pre-formed structures. Emerging almost simultaneously on the fringes of black American and white European jazz and, in slightly more circumscribed forms, in the world of contemporary art-music, it was soon joined by outliers from the world of rock19 and, before long had drifted so far from its various roots that it became an autonomous genre. Like the object-free, anti-gallery visual art of the period designed to escape the clutches of the market and art establishment, free improvisation too constituted itself as practice that, through its unrepeatability and lack of fixed structure, hoped to avoid appropriation, its inalienability guaranteed by the irreducibility of the lived event that gave it form.

And yet, of course, it was recordings that proselytised for improvisational practice, distributing models and instances around the world. And it was the diversity of recorded music – as well as by the creative and compositional forms of listening that sound recording had brought into being – improvisational practice broke through into what was variously called ‘free improvisation’ or ‘spontaneous composition’, in its purest form a practice demanding that all musical material be created spontaneously, unconstrained by harmonic rules, tonal or rhythmic restrictions or pre-formed structures. Emerging almost simultaneously on the fringes of black American and white European jazz and, in slightly more circumscribed forms, in the world of contemporary art-music, it was soon joined by outliers from the world of rock19 and, before long had drifted so far from its various roots that it became an autonomous genre. Like the object-free, anti-gallery visual art of the period designed to escape the clutches of the market and art establishment, free improvisation too constituted itself as practice that, through its unrepeatability and lack of fixed structure, hoped to avoid appropriation, its inalienability guaranteed by the irreducibility of the lived event that gave it form.

In music mediated by biological memory the activities we identify as composition and performance are inseparable. There exists simply a facility with music. Writing separates compositions without performances, and performances without composition: in this respect at least, embodying a kind of synthesis of biological and written memories.

Axis 3: Ear – Eye

I

Sound recording puts the ear back at the centre of musical mediation since it remembers only what it hears. By contrast, writing addresses the eye and is always silent.22

II

Learning about – and learning to play – music through the medium of recording proceeds naturally through the ear alone, as countless interviews with blues, jazz and rock musicians and would persist. Improvisers found instead that they could forge more cooperative and productive relationships with recording technologies as handfuls of groups and individuals – more from rock and contemporary music backgrounds than jazz, because they were less invested in notions of spontaneous expression and authenticity – began experimenting with the generation of material for subsequent aesthetic organisation by simply improvising to tape. From these recordings, parts could be selected, reworked, improvised with – even composed over – to realise compositions that would be impossible to score or repeat, and might, when they were finished mix improvised, scored, environmental and found (stolen) materials fluently and indistinguishably together.

Improvisation, then, seems to possess a unique status in respect of the new medium, acting variously as competitor, opponent, inadvertent beneficiary and powerful productive tool. It offers itself as an impregnable redoubt against the depredations of a zombie culture21 while, at the same time, allowing performers to exploit their unique skills to create works that are inextricably bound into it.

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19 Some names. American jazz: Ornette Coleman, Cecil Taylor, John Coltrane, Sun Ra; European Jazz: Peter Brötzman, SME, ISKRA, ICP; Contemporary: MEV, Stockhausen, AMM, Scratch Orchestra, Rack, Henry Cow, early Pink Floyd, Danger.

20 Recordings collapse geography, history and all the world’s music into a uniform catalogue of identical mass-produced, mass-circulated commodities, all stacked alongside one another in shops and libraries; with opera next to pigmy singing, jazz alongside Gregorian chant, reggae next to electronic music. What one might listen to and be influenced by is no longer a matter of class or geography but of personal taste and the accessibility of recordings.

21 Zombie culture: I simply mean that, for modern city dwellers especially, most of their musical experiences will be of recorded – that is dead music. Researcher Philip Tagg estimates that ‘...99% of music heard comes out of loudspeakers or headphones...’ (Music, moving image, semiotics and the democratic right to know, 1999. Online at http://www.tagg.org/articles/sth99art.html).

22 Indeed, a score may never be performed at all, leading one reasonably to ask in what sense it might meaningfully be called music.
who learned and copied music from records attest. Personal contact is lost, but since every recording is a potential instructor, the number of available teachers expands prodigiously. And one can choose between them simply by buying or borrowing the appropriate recordings. In oral-aural cultures too, learning-by-listening rests on imitation, but there transmission is necessarily local; you learn what you can where you happen to be. Otherwise you have to travel. But recordings come to us, they make everywhere local, and all music universal and – unlike teachers with a programme of rules, habits and canons – they are non-judgemental since, collectively, they can’t insist on a ‘right’ way to play or discriminate against eclectic, wilful or abstract approaches to music-making. Unable to explain, they also never complain.

III

Compositional practice also shifts from eye to ear. While writers have to imagine, calculate and noteate, hoping interpreters will understand, composers working with recordings are able to shape the sound itself, immediately and finally. And when they are finished, so is the work. Moreover, the entire process can be mediated by ear alone, from the selection of material (whatever a microphone or some other input can deliver), through assembly, listening, contemplation, further selection, winnowing, editing, re-ordering, layering and processing, all the way to making the final tweaks and adjustments. Conventional musical skills are rendered optional, as are instruments, since one can just as well begin with sounds that are electronically generated, naturally occurring or already recorded. For the first time in the history of music, performance can be dispensed with altogether and the work of composition can proceed without the origination of a single sound, as families of new forms unique to sound recording – musique concrète, sound collage, soundscape, plunderphonics and others – testify. 24

IV

In the digital domain, however, although the ear is still the final arbiter, there is a parallel re-empowerment of the eye in the form of graphic, colour-coded representations – of waveforms, frequency spectra, timelines and processing chains – that, on screen, create a working environment in which blocks of samples (which are just recordings) can be moved, superimposed, stretched, arranged, processed, copied, pasted and stored for future use, employing visual structuring techniques that are, in many ways, compatible with and analogous to those typical of work with notation. In this respect digital recording, at least, offers some kind of synthesis of biological and written memories.

24 Plunderphonics in particular, since it is a form that is based on the appropriation and manipulation of other people’s already finished work. No sound is originated and no conventional performance or compositional skill is required. It is the form, above all, in which recording examines and remakes itself, becoming its own subject; a form in which, one might say, it acquires self-reflexivity. Writing of his own work in this area, John Oswald described it as a form of active listening.

Axis 4: Presence – Absence

I

Music that is produced out of biological memory works through the direct and unalienated connection of maker and listener, and is transcended in shared time. Loosely we call these ‘folk’ and ‘ethnic’ (or ‘world’) musics. The dead inflexibility of a score shifts this communicative connection to an intermediary or intermediaries who interpret as they perform. And in the same way that writing separates author from interpreter, so interpreters separate listeners from the written text. 25 So, while oral art is fully present – and scored art is distracted by an inflexible past that has at best to be internalised and, at worst, is just mechanically reproduced – sound recording is unique in its total absence of contingent human contact. The last man standing is the listener who, in the absence of performers, ceases to be a participant and becomes a consumer; with all the rights of choice and use that commodities confer. And although human contact is lost, a kind of direct contact between generative source and listener is restored, making the transaction nuanced in its complexity, since the openness created by social distance, combined with the lack of any but audio cues, acts to draw the listener further into the experience, because it demands engagement and translation and thereby personalises the construction of meaning. At the same time the producer gains all the time in the world to hone, perfect and consider his or her side of the transaction before it is released into the world.

In general recordings speed the desacralisation, desocialisation and dehumanisation of musical activity, obliging – or allowing – composers and performers to work more or less in isolation toward the perfection of intentional, but inflexible objects for an imagined public that no longer comes together but listens increasingly (when it listens voluntarily) only to what it wants, when it wants and, for the most part, on its own. 26 Communication is still intended and received by actors on either side of the event object, but the two no longer connect.

II

As listening and composing are elided in the process of production, so too they begin to come together in the process of consumption since, through repeated listening, any

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25 Author/interpreter: Bach and I will never meet. Interpreter/listener: when Pablo Casals plays the Cello Suite, I experience his reading of Bach’s text but the text itself is hidden from me. The alienations are manifest, but there are liberations too: Bach can work unhindered, and in his own time, Pablo Casals can generate his reading of the text unhindered, also in his own time. Only the listener derives no extra benefit from this, other than the experience of those qualities of the work that the combined freedoms of composer and interpreter conspire to build.

26 Not always of course. Collective reception of recorded music is a feature of parties and discoes. The ubiquitous use of taped music as a psychological regulator in public and commercial spaces, also addresses people en masse. And there are occasions on which small, specialised groups gather to listen together too: for reasons concerned with education, adjudication, or simply a shared social activity. Whether listening is solitary or collective, what is vital is the function of the sound in its context, and the quality of the listening with which it is apprehended.
recording may acquire the status, or at least the character, of a composition for the listener. When I was working on my soundscape-based piece *There and back again*, I listened so often to various random recordings of urban and rural environments that I knew them by heart and could anticipate every sound. Through repeated listening they acquired predictability, shape, contrast and an inevitable logic: hallmarks of composition. This is an inevitable feature of repeated listening. And it brings into being a reactive form of composition through aesthetic listening, which is unique to, and a strong feature of, recorded media. It is also a powerful indicator of the power now invested in the listener.

Through its restoration of contact between maker and listener, and its embodiment of real, or apparently, real performances, sound recording, like film, induces at least an illusory presence, more concrete and fleshed out than the purely imaginary illusions conjured by writing, although equally unreal. Even so, I think, along this axis it’s hard to read sound recording as a meaningful kind of synthesis of earlier memory systems and in this respect it seems to stand alone.

**Axis 5: Sharing – Owning**

In cultures where music is mediated by biological memory alone, even where authorship is acknowledged, ownership is not. As an analogue to individual memory there is what one might call collective memory: the putative sum of what a whole community knows; a kind of pool of shared knowledge from which individuals constantly draw and to which their own realisations or inventions are returned. In the early twentieth century, the blues, a traditional, essentially oral, culture was mediated in this way, through sharing, borrowing and giving back, a process harmoniously facilitated, and accelerated, by the ubiquity and portability of recordings, since the theoretically accessible totality of recorded music seems structurally similar to the pool of collective memory (except that recordings exist somewhere and the collective pool nowhere). But writing had long since established its own understanding of accessibility and ownership. By the early eighteenth century, uncomplicated sharing and borrowing had become problematical for classical composers, who understood themselves as writers; and a score, after all, is physical evidence of authorship. Once copyrights had been established for other writings (1709 in Britain), their extension to musical texts seemed obvious.27 Sound recording negotiates a more complex relationship still with ownership. Of course, the sounding object, like the written score, is prima facie evidence of authorship; and paradigmatic inertia automatically transfers the concepts and forms of legislation from writing to recording. On the other hand, the ubiquity of recordings and their imposition on the public in every imaginable context seems also to put them in the public domain. In addition, the anonymity and accessibility of sounds embodied in mass-produced commodities, abetted by the ease with which they can be extracted and collaged, especially digitally, works only to reinforce the analogue suggested between the de-individualised ocean of recorded memories and the collective pool of human memories. Recording reifies this pool, while offering objective evidence of authorship; especially in the case of improvisations that can’t be established in any other way. In this respect, at least, recording embodies a kind of synthesis of biological and written memories.

‘… The fundamental things apply…’

In sum, sound recording removes all sonic material from the constraints of consecutive time, geographical place and physical presence. It allows any process that can be invented to be applied to any sound, and it supports the fabrication of an infinite number of aural illusions, which then persist as objects that can outlive and out-travel their fabricators. At one end of this transaction, extraordinary aesthetic power is granted the makers of works, who also no longer need to have conventional musical skills; and at the other, a similar power is conferred on the listener and the act of listening. The result is escalating diversity and endless repetition. And although recording eliminates the need for mutual presence, it still invokes phantom presences and virtual communities, which resonate with, engage, and inspire real communities and real lives. These affinities are elective and self-organising since, while sound recording, like writing, fragments and disconnects in one domain, it universalises and connects in another.

London, Northbourne, Caudeval, Warsaw, 2010

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27 Although they weren’t so included in the original legislation. It wasn’t until 1788, when Johann Christian Bach sued his publishers in London for breach of contract, that a legal judgement established that written music could indeed be protected by copyright.
At the start of the seventies, Chris Cutler co-founded The Ottawa Music Company – a 22-piece Rock composer’s orchestra - before joining British experimental group Henry Cow, with whom he toured, recorded and worked in dance and theatre projects for the next eight years. Subsequently he co-founded a series of mixed national groups: Art Bears, News from Babel, Cassiber, The (ec) Nudes, p53 and The Science Group, and was a permanent member of American bands Pere Ubu, Hail and The Wooden Birds. Outside a succession of special projects for stage, theatre, film and radio he still works consistently in successive projects with Fred Frith, Zeena Parkins, Jon Rose, David Thomas, Peter Blegvad, Daevid Allen, The Bad Boys Collective and spectralists Iancu Dumitrescu and Ana Maria Avram.

Recent projects include commissioned works for radio, various live movie soundtracks, pieces for the Hyperion Ensemble, Signe de Trois for surround-sound projection, a daily year-long soundscape project for Resonance FM, London and p53 for Orchestra and Soloists. He also founded and runs the independent label ReR Megacorp and the art distribution service Gallery and Academic and is author of the theoretical collection File Under Popular – as well as of numerous articles and papers published in 16 languages.

In The road to plunderphonia Chris Cutler looks at the critical role of memory – on which both the origination and reproduction of music turns – and attempts to unpick to what extent the specific nature of a memory system shapes the music that it mediates, with reference, especially, to the third and newest of these systems: sound recording. Chris investigates how the fact and the practice of sound recording have transformed every aspect of production and reception in the field of organised sound, creating wholly new genres and understandings. If the medium is the message, this essay is an attempt to understand what the message of this system is.

The Road to Plunderphonia also works as an accompaniment to Variations, the Ràdio Web MACBA series on the history of music collage and sampling curated by Jon Leidecker.
Three ways of binding your Quaderns d’àudio

Enquadernació japonesa grapada
Encuadernación japonesa grapada
Sewed Japanese Binding

Throw away this instructions manual once used (do not bind).