Curatorial > PROBES

In this section, RWM continues its line of programmes devoted to exploring the complex map of sound art from different points of view, organised into curatorial series.

Curated by Chris Cutler, PROBES takes Marshall McLuhan's conceptual contrapositions as a starting point to analyse and expose the search for a new sonic language made urgent after the collapse of tonality in the twentieth century. The series looks at the many probes and experiments that were launched in the last century in search of new musical resources, and a new aesthetic; for ways to make music adequate to a world transformed by disorientating technologies.

Curated by Chris Cutler

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, Tim Hodgkinson, David Thomas, Peter Blegvad, Daan Vandewalle, Ikue Mori, Lotte Anker, Stevan Tickmayer, Annie Gosfield and spectralists Iancu Dumitrescu and Ana Maria Avram. He is a permanent member of The Bad Boys (Cage, Stockhausen, Fluxus &c.) The Artaud Beats and The Artbears Songbook, and turns up with the usual suspects in all the usual improvising contexts. As a soloist he has toured the world with his extended, electrified, kit.

Adjacent projects include commissioned works for radio, various live movie soundtracks, *Signe de Trois* for surround-sound projection, the daily year-long soundscape series *Out of the Blue Radio* for Resonance FM, 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.www.ccutler.com/ccutler

PROBES #23

In the late nineteenth century two facts conspired to change the face of music: the collapse of common-practice tonality (which overturned the certainties underpinning the world of art music), and the invention of a revolutionary new form of memory, sound recording (which redefined and greatly empowered the world of popular music). A tidal wave of probes and experiments into new musical resources and new organisational practices ploughed through both disciplines, bringing parts of each onto shared terrain before rolling on to underpin a new aesthetics able to follow sound and its manipulations beyond the narrow confines of 'music'. This series tries analytically to trace and explain these developments, and to show how, and why, both musical and post-musical genres take the forms they do. In PROBES #23 we tackle the issue of noise - and what we mean by it – before examining the toy symphonies and the musical career of the infamous toy piano.

01. Transcript. Studio version

[Gregorio Paniagua, 'Anakrousis', 1978]

First: let's propose for the purpose of analysis three distinct categories of sound: speech, music and noise. And for now, let's make them mutually exclusive, so you can't confuse speech with music, or music with speech – and noise is whatever doesn't fit into either of the other two categories.[1] Next we'll say that while speech and music – as products of intentional human communication – are rooted socially, noise is what things in the world make when they are not busy communicating. This is not to say that we aren't interpreting these sounds – or that noise has no meaning for us – just that noise isn't trying to communicate with us – by which I mean, it doesn't form part of any culturally-based system of signification. It's just there.

So, in the human psychosphere,[2] the elements that make up speech and music necessarily occupy intentional and functional places within formally structured systems. Any sound that lies outside those systems is what we classify as noise. At the crudest level of simplification then we can say that in the continuum of all possible sounds, speech and music are grouped together in one decryption zone while noise is handled in another.[3] The parameter that changes with time – or with experience – is where the line that separates the two is to be drawn. This whole radio series, for instance, could be described as an investigation into the negotiations that are enacted around that contested line.

When I consult the latest edition of the Oxford dictionary it tells me that music consists of:

> Vocal or instrumental sounds (or both) combined in such a way as to produce beauty of form, harmony, and expression of emotion.

That's what it says. But I don't think any student or follower of music today could possibly take this definition seriously without concluding either that what our contemporaries call music isn't really music, or that the Oxford dictionary is seriously out of touch with reality. It's a definition that may have been uncontroversial in the nineteenth century but in the twenty-first century – apart from its plain inadequacy in the face of common cultural practice – it's no longer credible to propose definitions that deploy words like beauty and harmony as if they weren't even more contested and problematical than the notion they supposedly define.[4]

The same caveat applies to noise. The Oxford dictionary isn't very helpful here either. 'Noise', it says 'is *a* sound, especially one that is loud or unpleasant or that causes disturbance'. Now that could equally describe a lot of what we call music today – so, although it's possible to use the word noise in this way, analytically, it's unhelpful. And if we do accept such a definition then quiet seascapes and humming bees can't be noise. But by my definition – since they

[Bernhard Romberg]

aren't speech or music (pace Cage) – noise is precisely what they are; pleasant noise, perhaps, but noise nonetheless. That makes the birdsong introduced phonographically by Ottorino Respighi into his symphonic poem 'Pines of Rome', a *musical* sound, while the tweeting of actual birds outside my window is a species of *noise* – because the first is integrated into an organised system of inter-human communication, and the second is not.[5]

It's the exploration of this proposition that is going to occupy us in the next few programmes. Until now, we have been following composers and performers as they extend performance techniques, modify existing instruments, investigate instruments from the past – or other disciplines – and experiment with resources drawn directly from unfamiliar cultures. However strange the results may have been, the means employed have remained rooted in recognized musical universes. Any of the world's musical instruments, however strangely played or modified, is still a recognized instrument and, as such, is not required to justify its place at the musical table. It may be called upon to account for its table manners, but its legitimacy is above question.

The willful use in the fashioning of concert music of household objects, debris, auto parts or power tools however, unless obviously intended to be humorous, would be patently transgressive, since it would knowingly reject the common consensus about where the border between noise and music has been drawn.

Which is why the inclusion of non-instruments BW – before the time of Wagner – was either directed to atmospheric – the inclusion of whips and bells to accompany musical sleigh rides, for instance – or comic effect. The most elaborate examples of such works must be the Toy Symphonies, the best known of which is the 'Cassation in G Major' – for toys, two oboes, two horns, strings and continuo which, until recently, was attributed to Josef Haydn – then, after the discovery of a copied score, to Leopold Mozart, and now – well, no one is quite sure who wrote it now, indeed if anyone did;[6] it may just have been pieced together from different *divertimenti*, such works being, apparently, quite popular in mid-eighteenth century Germany. The version we know – from copies – is seven minutes long and features a toy trumpet, a toy drum, a ratchet and two birdcalls – a nightingale and a cuckoo. This excerpt is from an enthusiastic Japanese rendition in 1990, conducted by Naohiro Totsuka.

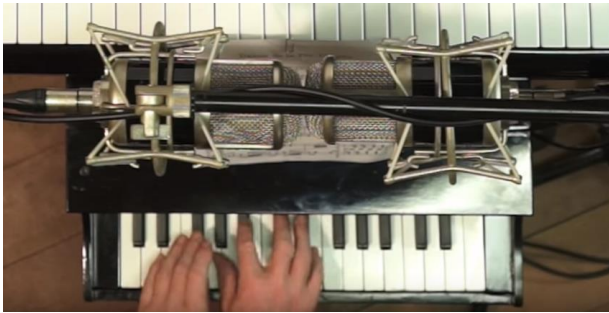**[Haydn/Mozart/anonymous, 'Toy Symphony' (excerpts) ca. 1750. Played by the Romanian Youth Orchestra]**

Another popular toy symphony that's still played today, is this one, by Bernhard Romberg, an eighteenth century German cellist and composer, who's still remembered in the Romberg bevel – a design improvement he made for the cello, which is still popular with rockabilly contrabassists. His toy-filled 'Symphonie Burlesque', was written in about 1830 and this rather impressive 78 RPM recording of it was made by the New Symphony Orchestra in 1929, conducted by Sir Malcolm Sargent.

[Bernhard Romberg, 'Opus 62, Symphonie Burlesque' (excerpts), ca. 1830]

And here's a more recent variant; this is the start of Malcolm Arnold's 'Toy Symphony', written in 1957 for the Hoffnung Music Festival. It's scored for twelve toy instruments, piano and strings and it shares with Romberg – strangely enough – the same 'Opus 62'.[7] Arnold's easy approach to such unconventional materials reflects, I think, his extensive experience with scoring for films. I'll just play the first movement.

[Malcolm Arnold, 'Toy Symphony, Opus 62' (excerpts), 1957]

What is interesting is that all these pieces contain – in a playful context – what would otherwise be considered noise and therefore unmusical. So for now let's appoint toys the Virgil who will lead us gently into the dark wood of household goods, power tools, urban debris and other sounds formerly excluded from the concert hall. And with what toy better to start than the one that made the first step from the nursery to the battlefield of contemporary music: the toy piano. Toy pianos date back to the mid nineteenth century, when the German toymaker Albert Schoenhut began to experiment with the idea of using glass rods connected to a keyboard to produce pitched tones. Eventually he replaced the

[Paul Barton playing a toy piano]

glass rods with resonating metal plates, not unlike glockenspiel keys, and it was this model that he took into production in 1872.

FOOTSTEPS

Schoenhut's piano may have been a toy but it anticipated in its core principles the celesta – named and invented a decade later by Auguste Mustel, though it's still unclear whether the connections between the two inventions were evolutionary or coincidental. But here's what we do know: in 1788, the Irish instrument builder, Charles Claggett, designed what he called the aiuton, a three to six octave keyboard in which rosined silk was used to bow an array of tuning forks mounted on a sounding board. Designed to produce long singing tones, the aiuton was directly inspired by Benjamin Franklin's mechanical glass harmonica, an instrument that had been first prototyped in England back in 1762.[8] Eighty years later, Thomas Machell & Sons of Glasgow began to manufacture the dulcitone, another keyboard instrument that was built around tuning forks, not bowed this time but struck – like the strings of a piano – with felt-covered hammers. Sales records show that dulcitones were very popular with missionaries, though some also found their way into the concert hall: Vincent D'Indy's 'Song of the Bells', for instance, was composed for one in 1888. At almost exactly the same time, a similar instrument appeared in France, designed by the harmonium builder Victor Mustel – the typophone. It was too quiet for orchestral use, but when his son Auguste replaced the tuning forks with glockenspiel-style metal plates – very similar to those in Schoenhut's toy pianos – and amplified them with acoustic resonators – he created the celesta. This *was* a viable concert instrument and was rapidly adopted by several composers, not least amongst them Pyotr Tchaikovsky, who gave the celesta a starring role in his ballet, 'The Nutcracker' – in which it was used – of course – to sound… like a toy piano.

[Pyotr Ilyich Tchaikovsky, 'The Nutcracker, Op. 71, Act II: Dance of the Sugar Plum Fairy' (excerpts), 1892]

And just because we can, here it is, played by a real toy piano.

[Played on toy piano by Paul Barton (YouTube)]

FOOTSTEPS

It was 50 years later that John Cage, in a single composition, turned the toy piano itself into an accepted concert instrument. The composition was his 'Suite for Toy Piano' – conceived at Black Mountain College in 1948 to accompany a Merce Cunningham dance performance.[9] Cage had been pursuing experiments with prepared pianos for some ten years by this time and he approached the toy piano not simply as a theatrical and transgressive device, but a set of specific sonorities and constraints.[10] Considerable constraints, because the toys Cage had in mind had mostly only seven white notes in a range of one, or maximum two, octaves – and practically no control at all over dynamics.[11]

Here's the second of the five short movements, played unfussily here by Jeanne Kirstein, the first person to record it, 22 years after its composition, in 1970. Seldom mentioned in dispatches, Kirstein was professor of piano at the University of Cincinnati, and it was she who revived and recorded Cage's prepared piano repertory at a time when everybody, including Cage himself, had more or less forgotten about it. The two met when Cage was appointed composar-in-residence at Cincinnati University between 1967 and 1968. Subsequently he and Kirstein worked closely together in preparation for Kirstein's performances. The LP of the work, when released, did much to boost Cage's visibility and status and, as biographies report, helped him to re-focus his own musical thinking at a time of uncertainly and drift.

[John Cage, 'Suite for Toy Piano, Movement 2', 1948. Played by Jeanne Kirstein]

I'll also play here an excerpt from Cage's 'Music for Amplified Toy Pianos', written in 1960, because it influenced at least one notable future toy piano player. The score consists of transparent sheets, each with indications that control different performance parameters, each performer having to superimpose them in their own way. The amplified sound is then distributed around the audience through four separate loudspeakers. Scored for any number of players

[Christopher Hobbs]

and of indeterminate length, it's calculated never to produce similar performances; only the nature of the sound might identify the work. The premiere was given at Wesleyan University, while the ink was still wet on the score, by David Tudor, who chose to play it alone. This version is played by three toy pianists, Gianni-Emilio Simonetti, Juan Hidalgo and Walter Marchetti.

[John Cage, 'Music for Amplified Toy Pianos' (excerpts), 1960]

After the premiere of the original 'Suite' in 1948, the floodgates didn't open, but the idea of the toy piano did register itself with the musical community and, in the late sixties very slowly began to appear on concert stages, most strikingly under the hands of The Promenade Theatre Orchestra, a British quartet whose central instrumentation consisted of four matched French Michelsonne[10] toy pianos and 4 Hohner reed-organs. Active between 1969 and 1973, This was a vehicle for four British composers, John White, Alec Hill, Hugh Shrapnel and Christopher Hobbs, all minimalists at heart, who played what was then called systems music – or process music – which sounded simple, but was not so easy to play. Here's an excerpt from Hugh Shrapnel's 'Ambrose Farman's Memory', recorded privately at a concert at the Holland Park Orangery, in London, in 1972.

[Promenade Theatre Orchestra, 'Ambrose Farman's Memory' (excerpt), 1972][12]

And here's a slightly later recording of Christopher Hobbs' 'Aran' – a 'found' systems piece in which the elements are all derived from the pattern for an Aran sweater. It's played here by Hobbs himself and composer Gavin Bryars.

[Christopher Hobbs, 'Aran' (excerpt), 1969-72]

In the same period, the Argentinean composer Mauricio Kagel, who used toypianos in a number of his works, wrote 'Repertoire', a remarkable music-theatre piece, lasting an hour, that features an extraordinary parade of dramatically staged sound events, some of them involving instruments. This excerpt is from a 1970 television production of the work by the Kölner Ensemble für Neue Musik, currently available in its entirety on YouTube – which I strongly recommend.

[Mauricio Kagel, 'Repertoire' (excerpt), 1967-70]

The American experimentalist George Crumb also uses toy pianos on occasion. Here's one, for instance in his *Ancient Voices of Children*, also written in 1970 – for boy soprano (singing into the strings of the piano), harmonica, three humming percussionists and a toy piano that quotes J. S. Bach's 'Bist Du Bei Mir', taken from his *Notebook for Anna Magdalena Bach*. The text is by García Lorca.

[George Crumb, 'IV. Todas las Tardes en Granada, Todas las Tardes Se Muere un Niño' (excerpt), 1970]

Meanwhile, outside the academy, the French composer and performer Pascal Comelade was regularly using toy pianos, usually in mixed orchestrations with other instruments inspired, he said, by John Cage's 'Music for Amplified Toy Pianos'.[13] More toy instruments, especially toy guitars, soon found their way onto his records and in 1979 he released *Sequences Païennes*, which featured, amongst other things, pieces for toy pianos and 18 plastic saxophones. Here is the toy piano track, 'Sequence 5'.

[Pascal Comelade, 'Sequence 5' (excerpt), 1979]

And here's his version of Neil Young's 'Prime of Life'.

[Pascal Comelade, 'Prime of Life' (excerpt), 1997]

Back in America, the composer Wendy Mae Chambers, already with a considerable track record of experiments with highly unorthodox materials behind her, became the first of many female toy pianists. Chambers says she came to the instrument through George Crumb's *Voices of Ancient Children*, only discovering Cage's 'Suite' some years later. Her first toy piano appeared in 'Street Music', in 1978 – and was scored for 30 musicians and a coordinated radio broadcast,

[Pascal Comelade]

organised around the musical theme of *Close Encounters of the Third Kind.* She then wrote her own 'Suite for Toy Piano' in 1983, becoming at the same time a regular improviser on the instrument. So far as I can tell, she was the first person to present an entire concert solely of toy piano music – at New York's Knitting Factory, in 1990. In 2009, sponsored by the toy piano company Schoenhut, she premiered 'Kun', for 64 toy pianos, in Miami.

[Wendy Mae Chambers, 'Kun 52', 2009]

And here's a brief preview of California's Toychestra – we'll be formally introduced to them in the next programme – making a feature of the toy piano in their 'Feathers Dusted', recorded in 1996.

[Toychestra, 'Feathers Dusted' (excerpts), 1996]

Following this burst of toy piano energy, there was another long pause, before a strong renewal of interest manifested itself at the end of the century. So while we wait for that, I'll sign off this programme with Pascal Comelade's *Ball de la Candela.*

[Pascal Comelade, 'Ball de la Candela', 2014]

[Gregorio Paniagua, 'Anakrousis', 1978]

[1] Song is not speech and the most poetic forms of prose are not music.
[2] I use the term psychosphere because I think it's more intuitively comprehensible than the more specialised term *noosphere*, which crystallised out of meetings and correspondence between Teilhard de Chardin, Édouard Le Roy and Vladimir Ivanovich Vernadsky in the early 1920s, to identify the sphere of human thought, or that which is constituted by the interaction of human minds.
[3] There are of course any number of subsets within each set at any given time.
[4] The Merriam-Webster definition is more analytical and contemporary, claiming only that music is 'the science or art of ordering tones or sounds in succession, in combination, and in temporal relationships to produce a composition having unity and continuity' though the references to both unity and continuity could legitimately be questioned.
[5] Luigi Russolo was the critical ideological figure in this radical thinking shift; Edgard Varèse was its musical genius.
[6] A BBC announcer recently introduced a performance confident that it was written by Joseph Haydn's brother Michael…
[7] Toy Instruments: quail cuckoo (doubling guard's whistle); whistle in C sharp minor (Doubling Nightingale); trumpet in F (playing four notes); trumpet in C (one note); trumpet in G (one note); three Dulcimers: F & C (one player), D & A (one player), B flat & F (one player); triangle (one player); cymbals (one player); drum (one player).
[8] The tuning fork was invented in 1711 by the British trumpeter and lutenist John Shore; Franklin's mechanical glass harmonica was first built 1762 by glass-blower Charles James in London.
[9] The title of the programme was 'Diversion A'.
[10] 'I wanted to find a way of writing for unprepared or normal instruments. The place to begin would be with the simplest aspect of the piano, namely, the while keys. I tried to write in such a way that these [white] pitches, which were the most conventional, would become new to my ears.' Cage continues: 'I wanted to approach each sound as though it were as fresh as a prepared piano sound. Actually, the *Suite* can be played on any keyboard instrument. I like the sound of a toy piano very much. It sounds like a gamelan of some kind' (page 69, 2003 edition).
[11] Although Cage wrote plenty of dynamics into the score, probably because he expected the piece to be played mostly on normal pianos.
[12] The unique instrumentation of the group came about through accident rather than design; one of us bought a one-and-a-half octave chromatic toy piano (the Golden Grandiosa), so the rest of us bought one too. Similarly with the reed organs. A second set of toy pianos (Michelsons) replaced the first set as they inevitably broke.
[13] Personal communication.

02. Notes

On length and edits.
The purpose of these programmes is to give some practical impression of the probes we discuss. This necessitates for the most part extracting short stretches of music from longer wholes, which, of course, compromises the integrity and disrupts the context inherent in the original works. I have also, on occasion,

[Mauricio Kagel]

edited different sections of a longer work together, better to illustrate the pointsunder discussion. So the examples played in the programmes should not be confused with the works themselves. Wherever the word (excerpt) appears after a title in the programme transcript, this indicates that what follows is an illustration, not a composition as it was conceived or intended. If something catches your ear, please do go back to the source.

Notification
If you want to be notified when a new probe goes up, please mail rermegacorp@dial.pipex.com with subject: Probe Me.

03. Acknowledgments

Thanks to: Sergio Amadori, Virginia Anderson, Richard Barrett, Brian Brandt, Chris Burn, Andre Chaudron, Phyllis Chen, Pascal Comelade, Joe Cutler, Caleb Dupree, Thomas Gaudynski, Christopher Hobbs, Laura Kuhn, David Petts, Margaret Leng Tan, John Tilbury and Charles Vrtacek.

04. Copyright note