

## 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

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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](http://www.ccutler.com/ccutler)

# PROBES #25

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 #25, across the musical spectrum, composers and performers explore the musical possibilities of the toy room and the scullery.

## 01. Transcript. Studio version

[Gregorio Paniagua, 'Anakrousis', 1978]

In the last few episodes we've been looking at the way non-instruments have been brought into musical contexts, usually for dramaturgical reasons – sleigh bells or anvils, for instance – or to humorous effect, in novelty acts and of course the toy symphonies that reach back into the early eighteenth century. In the second half of the twentieth century, toys acquired more weighty responsibilities – embodied not only in the vast catalogue of compositions dedicated to the toy piano but also, more broadly, to toys in general.

Here's the British composer Gavin Bryars' 1970 composition, 'Made in Hong Kong', an instruction piece that approaches toys neither as surrogate instruments nor as humorous ornaments but rather as free-standing self-referential sources of organizational potential. And although the score specifies what *kinds* of toys are to be used – mostly wind-up or battery operated, – it has nothing to say about *how* they should be used, or in what order – or following what aesthetic rule. The toys just get on with doing what they do, while the performer is obliged to forge a structural and musical narrative out of their particular vocabularies. Here's the saxophonist and composer Ulrich Krieger's version, recorded in 2007.

[Gavin Bryars, 'Made in Hong Kong' (excerpts), 1970]

The first all-toy band, not so much attempting to find new sounds in toys as to duplicate old sounds with amplified toy versions of conventional instruments was the American novelty group Pianosaurus, a trio, formed in 1982 who made and released two records on their own label, in 1985 – followed by a third two years later released by Rounder records. This track is from that release. It's a cover of the Box Tops' 1967 hit – one of the shortest ever to get to No.1 on the billboard chart – 'The Letter'.

[Pianosaurus, 'The Letter', 1986]

Ten years later, in San Francisco, a more canny toy group emerged, without really meaning to, when three musicians invited to play at a women's festival of experimental music decided, in the middle of their first rehearsal, to abandon their normal instruments and write songs accompanied by toys instead – and not just toy instruments, but any kind of toys. Hence the name Toychestra. This is from their first studio CD, made in 2002.

[Toychestra, 'Twinkle', 2002]

Toys as a specialist improvising instrument only emerged in the mid 1980s notably under the hands of the singer Anna Homler, in America, and the Czech saxophonist and visual artist Martin Klapper – by then relocated to Denmark. Homler says she was inspired to build up her own collection after she saw the British electroacoustician Adam Bowman using toys in the early eighties. But



[Anna Homler]

unlike incidental toy-players, Homler played nothing else. Here she is with the British violinist Sylvia Hallett – who’s playing the accordion, while Anna handles the toys. This is ‘Jolly Chondra’, recorded in 2012.

**[Anna Homler & Sylvia Hallett, ‘Jolly Chondra’, 2012]**

And here’s Martin Klapper, also with a tabletop of toys, playing with the British drummer Roger Turner.

**[Martin Klapper & Roger Turner, ‘Krach!’ (excerpt) and ‘Good Schwitt’, 1998]**

In 1999, Martin Klapper organised the concert Toys’n’Noise for the Copenhagen Festival of Experimental Music. And amongst his invitees were Anna Homler and the British improvisers Steve Beresford and Richard Sanderson, all of whom continued to work together subsequently under the name Toy Bazaar. This is ‘Umfallen’, from a concert they gave in Berlin, in 2003.

**[Toy Bazaar, ‘Umfallen’ (excerpt), 2003]**

Meccano is a modular construction toy that dates back to the beginning of the twentieth century. Essentially, it’s a collection of plates, brackets, wheels and drive-belts that can be bolted together in any number of ways. The French performer, composer and installation artist, Pierre Bastien, has used it for over thirty years in the construction of automated performing machines – which he usually powers with gramophone turntables. So far, there have been about eighty of them, designed to play a huge variety of instruments, many quite exotic – like the Javanese saron or the Moroccan bendir. Since these are simple mechanical devices, their limitations have led Bastien’s aesthetic firmly into the world of loops – or when several machines are played together, of polyrhythms and polymetres. In most situations, the machines are paired with human collaborators – most frequently with Bastien himself – as in this example, where he plays cello.

**[Pierre Bastien and Mecanium, ‘Tender Red Net’ (excerpts), 2001]**

And here are some of the machines entertaining themselves.

**[Pierre Bastien, ‘Play Meccano Play’ (excerpt), 1996]**

And before we put childish things behind us, I should say something about the groundbreaking work done by the American circuit-bender Reed Ghazala, whose inventions – although beautiful and fascinating – are still only known to a small coterie of devotees. This is perhaps, in part, because, although fascinating, these instruments do tend to be quite limited in scope, as well as being difficult to control. However, Reed’s systematic rationalisation and promulgation of circuit-bending – both as an educational pursuit, and a practical, hands-on way of creating new sounds – continues to generate workshops, educational projects and specialist festivals – across the world.

**[Footnote]**

Circuit bending is Reed Ghazala’s term for the experimental, trial-and-error modification of electronic devices, preferably low-voltage, battery-powered toys – because these are safer for non-electricians to tinker with. The principle, however, holds for any electrical circuitry. To bend a circuit, all you have to do is open up your device and temporarily cross-connect or short-circuit the internal components in a systematic way, and see what sounds come out of it. If you like the result you hardwire it – and plumb in an on/off switch or controller. For more sophisticated options you can solder in resistors, capacitors or potentiometers. The glory of this method is that it’s based on just poking around at random, rather than needing specialised knowledge – and you invariably come out of it with a unique device that makes very strange noises. Reed’s discovery of the principle was itself serendipitous. Back in the early sixties, he had a toy 9V amplifier, which short-circuited itself and began to warble like a synthesiser. He was curious – and because his brain works that way – decided to investigate. In the process, he came up with his now ubiquitous empirical-experimental method – which he not only freely shared, but also used to build a lot of very beautiful instruments for other people, the best known of which are the ones he calls incantors, made from children’s toys – especially, in the early days, the Speak &



[Voice Crack]

Spell and Speak & Math – which were essentially proto-speech-synthesis computers that Texas Instruments were marketing as educational toys. Here's an example of a bent Speak & Spell in action.

[Punksynth, 'Circuit-Bent Speak & Spell' (excerpts), 2010]

[End footnote]

The *idea* of [circuit-bending](#) proved much more inspiring than the musical results it produced – and it remains a widespread practice that continues to spawn recordings, how-to manuals, newsgroups, websites and workshops. There are also irregular festivals at which dedicated circuit-benders can exchange ideas and showcase their work – such as this, by the lone circuit bender Ghostfire Electronics which uses four circuit-bent Teletubby toys.

[Ghostfire Electronics, 'Circuit-Bent Teletubby Quartet', 2014]

In the early eighties, a more electronically knowledgeable variety of circuit bending was publicly showcased by the Swiss duo Voice Crack (Andy Guhl and Norbert Möslang), who had started out in the mid seventies as a free jazz duo but slowly drifted over into what they called *cracked everyday electronics* – meaning circuit-bent radios, dictation machines, printers and so on, which they controlled either by gesture or, more dramatically, through the application of light – shining torches on photosensitive cells. Here's an excerpt from a 2001 concert at the AMR Jazz Festival, featuring a combination of both cracked electronics and regular toys.

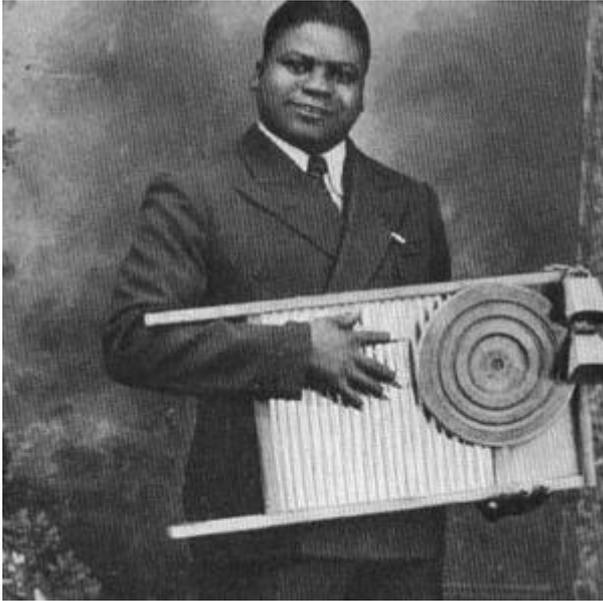
[Voice Crack, 'Live at AMR Jazz Festival' (excerpt), 2001]

Until now we have seen that, however radically they may have stretched the resources they had, musicians and composers tended not to stray outside their natural and professional boundaries. For the most part, all of the modifications, preparations and extended techniques they investigated were applied to instruments with which they were already familiar. And if new instruments were introduced, these tended to be imported unchanged from other cultures, other genres or earlier historical periods. The only exceptions to this rule were where there were what we might call supplementary contexts – that is to say: when unmusical objects were introduced for comic effect – as they are, for instance, in the toy symphonies, or in Spike Jones' use of car horns and tin cans – or in the vaudeville and music hall acts that featured bottles or balloons. Equally uncontroversial were occasions on which non-musical sounds were used to atmospheric or dramatic effect – which would include sleigh bells, birdcalls, anvils, cowbells or heavy artillery as deployed by – in these instances – Mozart, Respighi, Wagner, Mahler and Tchaikovsky.

[Pyotr Tchaikovsky, '1812 Overture' (excerpt), 1880]

All of these transgressions were accepted, I think, because they didn't undermine consensual musicality: what was musical and what was not musical remained clearly separated; in fact they tacitly reinforced one another. The same, however, could not be said for our third exception: poverty. Poverty doesn't require an external context to justify its innovations, nor is its commitment to musicality called into question. It's just that, unable to afford the instruments it needs, it finds itself with no alternative but to mine the world of mundane things for analogues and surrogates that can fill the musical functions it wishes to explore. Some forms of poverty default instinctively to creativity.

A case in point would be the so-called spasm bands that appeared in New Orleans at the end of the nineteenth century. These were usually groups of children – they might be white or black – who worked the streets for money, turning buckets into banjos and playing guitars formed out of cigar boxes – as well as recruiting kettles, washtubs, washboards, bits of pipe, whiskey jugs, spoons and pie-plates – amongst other things – to deputize for otherwise unaffordable instruments. Grown-ups, in the closely related string bands, jugbands, jook and skiffle groups adopted many of their innovations – and in the first few decades of the twentieth century you would have found, in the rich mixture of makeshift music produced by professionals and amateurs alike – *all of*



[Washboard Sam]

*the ingredients that later separated out* into what we now know as American folk, Dixieland jazz, ragtime, blues and country music. Indeed Emile Lacombe, who founded the first documented spasm band, in 1895, believed – and had engraved on his tombstone – that he was the ‘originator of jazz-music’.

**[Footnote]**

In all the musical examples that follow, although the emphasis is on one particular instrument, nearly everything has some – or several – other notable or original qualities; I won’t point them all out, because they can speak for themselves – but that’s why some of these examples are longer than they otherwise might be. Some kinds of music we just mentally tag, but often it pays to really listen.

**[End footnote]**

**[Washboard Sam, ‘Baby Don’t You Tear My Clothes’, 1936]**

The zinc washboard, for instance, which was typically played with a triangle beater or wearing metal thimbles on every finger, was a common drum substitute – and its highly distinctive character soon found it a place in a number of different genres – and indeed, it remains in specialised use today. Here are The Washboard Rhythm Kings, recorded in 1933.

**[The Washboard Rhythm Kings, ‘Untitled’, 1933]**

A lot of early jazz bands too, like King Oliver’s and Louis Armstrong’s were driven by washboards. Here’s Jimmy O’Bryant’s Famous Original Washboard Band, recorded in 1925. The washboard is played with thimbles here, in the tapping style.

**[Jimmy O’Bryant’s Famous Original Washboard Band, ‘My Man Rocks Me’, 1925]**

And here, in the strumming style, is ‘Pepper Steak’, recorded by The Washboard Rhythm Kings in 1931.

**[The Washboard Rhythm Kings, ‘Pepper Steak’, 1931]**

Washboards were no stranger to the blues either. Here’s Bukka White’s ‘Fixin’ to Die’, quite a late recording, made in 1940 with Washboard Sam.

**[Bukka White, ‘Fixin’ to Die’, 1940]**

In that same year – 1940 – the washboard and the washtub bass both made a rare appearance in an early percussion piece by the American composer William Russell who – after Edgard Varèse – was one of the first to compose for unpitched percussion – and certainly the first to integrate African, Caribbean and Asian instruments – as well as found objects – into a classical ensemble. Russell’s work undoubtedly influenced John Cage, who performed several of his pieces – the last being ‘Chicago Sketches’, which Russell wrote specifically for a concert Cage had organized at Mills College, and performed himself in a trio with John and Xenia Cage. It was his last composition. After visiting New Orleans, he said that he realised jazz musicians could invent music on the spot that was more interesting than he could write. So he stopped composing and spent the rest of his life playing with The New Orleans Ragtime Orchestra – as well as writing articles and books on the history of jazz, organising the Hot Record Exchange and running the American Music label. It was only in 1990, in celebration of his 85<sup>th</sup> birthday, that a retrospective concert of all his surviving works was assembled in New York. This recording was made shortly afterwards. In addition to the washboard and washtub, ‘Chicago Sketches’ was also scored for suitcase, woodblocks, tom toms and a set of tin cans.

**[William Russell, ‘Chicago Sketches. Part 2: 5507 S. Michigan’, (1940)]**

And here, two thirds of a century later, are three elderly gents playing ‘Rock the Cradle, Joe’ at the Rockbridge Mountain Music Festival in Virginia.

**[Whit Whitfield, Jim Morris and Wilmer Kerns, ‘Rock the Cradle, Joe’, 2010]**



[Memphis Jug Band]

In 1946 the all-time King of Zydeco, Clifton Chenier, and his brother Cleveland, commissioned the master welder Willie Landry in Port Arthur to make them a wearable washboard – now known as a frottoir, or rubboard. It looks like a metal breastplate and hooks over the shoulders like a medieval tabard. Generally it's played with two bottle openers – one in each hand and has now become a standard zydeco instrument. Willie Landry's offspring are still making them. Here are Clifton and Cleveland in 1970.

[Clifton Chenier, 'Josephine Par Se Ma Femme', 1970]

[Unintelligible shouting]

Yes indeed, someone did electrify the washboard, and there are several specialist companies who make them – although I've never seen one in action. But here's a concert recording of Cody Dickinson of the North Mississippi Allstars playing his.

[Cody Dickinson, 'Electric Washboard Solo', 2012]

In fact washboards had been used by black musicians all the way back to the beginning of the nineteenth century, as had another household staple – the jug – which seems to be directly related to the African chipeni, or singing gourd, which is played in exactly the same way. And although, as we saw, some of the spasm and skiffle bands had made string basses with a combination of washtubs, twine and dowel, more often the bass was provided by a stone, ceramic, or glass jug, which was played in the manner of a sousaphone or tuba.<sup>1</sup> As it is here in the Memphis Jug Band's version of 'Cocaine Habit Blues', recorded in 1930.

[Memphis Jug Band, 'Cocaine Habit Blues' (excerpt), 1930]

Jug technique is not intuitive; you don't blow across the neck as you would with a transverse flute, but into the jug itself, with your lips set as if playing a trumpet or a tuba, and positioned about an inch away from the opening. The sound is actually made by lips and tongue – the jug is just acting as an amplifier and timbral processor. Different pitches, over the range of about an octave, can be formed by varying the tension of the lips, and changing the angle of the jug. In some cases, players sing into the cavity – rather like didgeridoo players. Here's Whistler and His Jug Band, recorded sometime in the nineteen twenties.

[Whistler and His Jug Band, 'Untitled' (excerpt), 1920s]

Jug bands had more or less disappeared by the late thirties, but they made a brief comeback at the end of the fifties, as a specialised wing of the folk and blues revival.

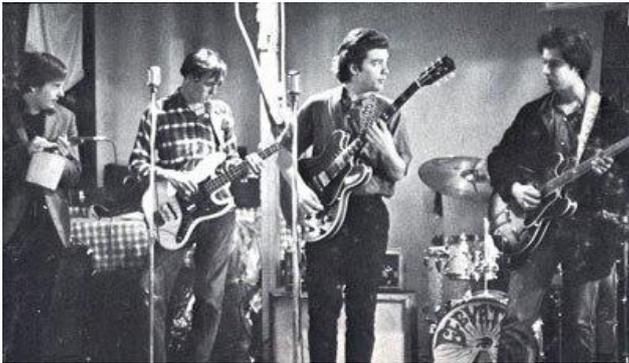
[Inaudible shouting]

Yes indeed, someone did electrify the jug; several people in fact. Probably the most inventive of them was Tommy Hall, the co-founder of The 13th Floor Elevators – an American psychedelic garage band formed in Texas in 1965 who – according to their own publicity – played most of their gigs – and did all of their recordings – under the influence of LSD. Tommy was their lyricist as well as a full-time jug player and he evolved his own unique technique, which consisted of singing into the jug and pretending to be a synthesizer instead of a sousaphone. Here's a fairly typical track – that wibble wibble wibble sound is the jug.

[The 13th Floor Elevators, 'You're Gonna Miss Me' (excerpt), 1966]

Blowing across a hole to set a column of air in motion is the principle that unites all transverse flutes – as well as instruments like the panpipes. And you can get nice hollow sound from a bottle too if you just blow across the neck – though you can only get one note per bottle – the one native to the resonant frequency of the empty space it contains. So the larger the bottle, the lower the pitch. Adding sand or liquid will reduce the empty space and raise the pitch; taking some out will lower it again. So, it's easy to tune any set of bottles to any set of pitches you want.

The British experimental composer, John White – a pioneer of the UK school of random-process minimalism – calls for a set of blown bottles in his 1970 composition 'Drinking and Hooting Machine', which is scored for four groups of



[David Bedford]

players. Each participant begins with a full bottle and follows a score which instructs them – in a non-co-ordinated way, of course – to play randomly derived numbers of hoots by blowing across the tops of the bottles and then, at designated points in the score, to take sips, swigs or gulps, which randomly alter the pitch of their bottle – before continuing. The piece proceeds like this until all the bottles have been emptied.

**[John White, 'Drinking and Hooting Machine' (excerpt), 1970]**

And here is the incomparable French composer and arranger Albert Marcœur, making exemplary use of blown bottles in his 'Simone', written and recorded in 1973. On this track you will also hear a guitar, a charango, some percussion, whistles and a clarinet.

**[Albert Marcœur, 'Simone' (excerpt), 1973]**

The same variably filled bottles will of course produce pitched tones if they are struck – and sets of tuned bottles have featured in many musical contexts – most of them comical, but here is percussionist Emil Richards – whom we have met several times already – using his famous set of sake bottles on Alex North's soundtrack for John Huston's film *Under the Volcano*, released in 1984.

**[Alex North, 'Under the Volcano Original Motion Picture Soundtrack' (excerpt), 1984]**

**[Inaudible shouting]**

No, there are no electric bottles as far as I know, but there is a bottle concerto – at least that's what it's called. In fact, it's yet another advertising confection financed by a brewery and performed at great expense by two orchestras<sup>2</sup> – both of them only playing beer bottles – in real time, of course, or it wouldn't be funny. The tune is the company's corporate jingle, orchestrated by the conductor Cezary Skubiszewski.

**[Orchestra]**

That's it. I need a drink. In the next programme we'll be listening to household objects, trash, auto parts and heavy machinery.

1 Or, as the British skiffle revivalists did in the fifties, with tea-chests, string and broom-handles.  
2 The Melbourne Symphony and the Orchestra Victoria

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## 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, edited different sections of a longer work together, better to illustrate the points under 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.

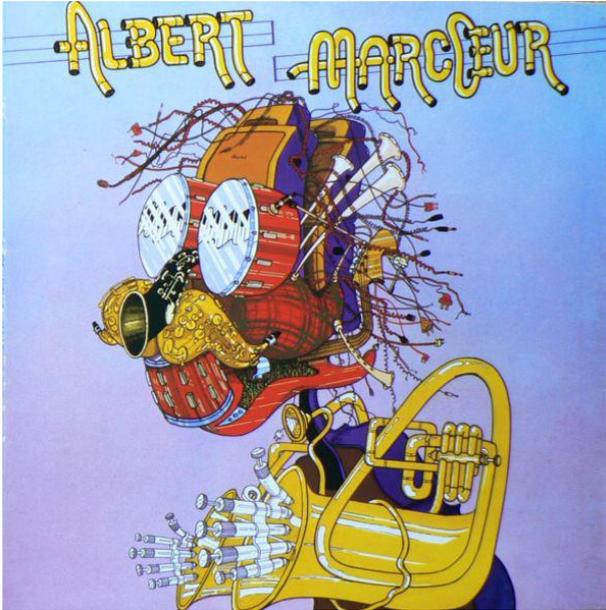
### **Notification**

If you want to be notified when a new probe goes up, please mail [remegacorp@dial.pipex.com](mailto:remegacorp@dial.pipex.com) with subject: Probe Me.

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## 03. Links

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## 04. Acknowledgments

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