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This article explores the concept of sonic plausibility as an aesthetic and compositional principle in electronic music, developed through the author's long collaboration with the synthesiser designer Rob Hordijk (1958–2022). Drawing on personal experience with the Blippoo Box, the Hordijk Modular, and a posthumous instrument created in his honour, it argues that plausibility, the quality of a sound that could exist rather than one which merely represents known and existing sounds, offers a frame for thinking about electronic timbre. The idea is set alongside related thinking from Pierre Schaeffer, Trevor Wishart and Denis Smalley, for whom the question of how a listener reconstructs an absent or imaginary source are also core. Moving between close listening practice, the phenomenology of electronic sound, and the philosophy of imagination, the article situates Hordijk's instruments within a broader consideration of listening as a creative, constitutive act, and of the collective and personal dimensions of instrument design, lutherie and musical knowledge.

The Slipperiness of Electronic Sound

Sound travels by causing particles in air, water or solids to bump into each other in a chain reaction, each transfer dissipating energy as heat. Electronic sound mimics this physical phenomenon through voltage: a difference in electrical potential between two points is amplified, enters the room through the vibrating cone of a loudspeaker, and takes on physical form. Electronic sound becomes perceptible as a material fact, although cognitively, it is perhaps quite a slippery one.

There is a particularly fertile space between acoustic sound as a consequence of physical events or expulsion of energy, and the creation of changes in voltage (or simulations of them in mathematical models) which may or may not be analogous to physical events. This slipperiness, which neither physics nor musicology can tell us enough about, informs how sound is received and imagined by a listener.

Electronic sound is imaginable as simultaneously both embodied and disembodied. Embodied, through the fact of its disturbance of the molecules which comprise air; disembodied, because beyond the vibrating loudspeaker it has no tangible physical body at its source. It is not so much the sound not of a resonating body but of resonance becoming embodied through articulation and through listening. At once abstract and material, it does not, in and of itself, transmit or represent an event, knowledge, meaning or language. Meanings are cultural and contextual, created as much by the interpretation and imagination of the listener as by the composer or the luthier. Electronic sound thus plays with a space between what we imagine as real and what we perceive as imaginary.

Rob Hordijk: Electronics Luthier

Rob Hordijk (1958–2022) was a highly original synthesiser designer, although he preferred the title electronics luthier, a preference that tells us something significant about how he understood his relationship to his instruments and to the people who played them. He trained in jewellery-making and engraving, and also digital system design and computing, but chose to focus on analogue design.

He was closely involved with the influential Clavia Nord Modular digital synthesisers, which preceded and anticipated the resurgence of interest in analogue modular synthesisers. He was very active in the user community around the original instrument in the 1990s. Clavia later took him on as a consultant on its successor, the Nord G2, for which he designed several modules and the user interface. This highly innovative instrument and the community surrounding it both influenced Rob greatly, although the Nord Modular was a commercial digital hardware product, mass-produced, widely distributed and highly influential. Rob also used the Nord G2 himself as a design platform, prototyping his circuits on its software as proofs of concept, before breadboarding them in analogue form, and ultimately creating the Hordijk Modular which remained resolutely handcrafted, analogue. His systems were of course influenced by the historical precedents that inspired him, Serge, Buchla, Moog and EMS, but they were designed from the ground up, from concepts of modulation, function blocks, and algorithmic principles rather than from repurposed historical circuits.

After some years of correspondence I finally met Rob in person in 2008 at a STEIM concert in Amsterdam, where our mutual friend and colleague Joker Nies was performing with a Blippoo Box. By the end of the evening I had made a new friend and ordered a Blippoo Box. Rob invited me to play a few months later at a small (and damp) underground venue in his workshop building and he gave me a Benjolin made in the style of the Blippoo he had made for me as a gift. Over the following years we sat for hours and days at a time, patching and talking about synthesisers, with Rob continuously inventing circuits, modules and systems in his head. His patching and sound design skills were remarkable. He created some of the most beautiful and organic abstract soundscapes I have heard from a synthesiser. He was not particularly concerned with composition or performance, and sadly, hardly ever recorded anything. As a result too much of his legacy is lost, living on only in the memories of those he met and demonstrated his instruments to. A series of formal interviews I proposed with him towards the end of his life never came to pass. His personal notebooks, which could have been an important source for succeeding generations, also mysteriously disappeared. His great friend, assistant and protege Biyi Amez assumes Rob must have destroyed them shortly before his death, for reasons we will never know. As it is, his legacy exists mostly in a long series of videos we recorded at a workshop at NOVARS (Hordijk, 2017), his presentations at Sines and Squares (Hordijk, 2014), various other videos made at synthesiser events and by those who visited him in his atelier; and, of course, most importantly, with the instruments themselves.

His instruments were commercially impractical, handmade and were enormously time-consuming to design and build. They were cheap to begin with and we would sell them more cheaply or give them away to colleagues and friends. Whatever Rob was doing, it was not capitalism. Nothing was marketed or advertised and he had little interest in industrial manufacture or commercial production. Rob produced only around 70 “full” modular systems in his lifetime, which within them contained many variations and individual modifications, along with around 350 Blippoo Boxes. Some larger instruments exist at a few institutions (NOVARS at Manchester University, the GRM in Paris, the Folkwang Universität in Essen) and in the hands of a small community of performers and composers worldwide.

He maintained close ties with many of those who purchased and used his instruments, some of whom, like myself, had been Nord Modular users, treating our experiences and feedback as vital information that helped him shape subsequent iterations of his designs and thinking. For Hordijk, these creations were personal, and even when an instrument had reached a stage when it was “finished enough” it was always subject to revisions, which were often directly influenced by user feedback and usage. A Hordijk instrument is not so much a thing in itself; but an unfolding proposition completed only by interaction with composers in the context of musical invention, where its meanings and purposes were revealed. The luthier’s decisions are made from a musical imagination that is neither entirely their own, nor entirely the composer’s alone. Ideas do not come from a singular point of genesis but from multiple lines of intention, perception and invention that overlap.

Rob attended my concerts whenever he could and analysed my own approach to patching in quite some detail. He eventually came to trust my perceptions enough to allow me some small influence on some of his designs, mostly in minor ways: adding some performance features into the Blippoo; all simple and perhaps obvious elements that a performer needs but which a luthier doesn’t necessarily think about. After some years of pestering, I had a more profound success when Rob finally designed a frequency shifter, which he had initially thought pointless (because, as he said, Harald Bode had already done so in the 1950s) but later felt was one of the most important elements in bringing the modular system to completion. Other instruments that we spent hours discussing; a performance-oriented Blippoo XL, his response to the EMS Synthi he loved, but entirely based on his own concepts and circuitry, and a very ambitious vocoder, remained concepts that cruelly never came to pass.

I was not alone in such discussions. I was part of a small community of users and collaborators who shaped and were shaped by Rob’s instruments. This network of interactions is, in some sense, part of what his instruments became, as much as their circuitry and faceplates. This is most clearly expressed in his “workshop” instrument, the Benjolin, offered in building workshops and to the DIY community as a gift from Rob. The Benjolin and Rungler continues to have a life of their own as many builders create and adapt their own versions and adaptations of it, for example, Biyi Amez’s Blippulator, Fancyyy Synthesis Rung Divisions and Peter Blasser’s Peterlin.

While the luthier creates and leaves purposeful and personal objects behind, these objects are not things-in-themselves; they are connected with communities of practice and with the broader history of electronic music tools. Even apparently solo electronic music is, on this understanding, a more collective endeavour than it may seem.

The Blippoo Box

In 2008 Rob created the Blippoo Box tabletop synthesiser. Originally conceived as a sonic art gallery exhibit, it is a small self-playing analogue box; a precarious sonic ecosystem which creates ever-changing streams of sound that anyone can interact with, play with, or simply experience according to their ear, taste or sonic curiosity. It plays the listener as much as the listener plays it.

The Blippoo is a self-modulating, generative analogue device comprised of two oscillators, a resonant filter, a sample-and-hold generator, a comparator and a pair of cross-modulating bit-shift registers, the Rungler. The interconnection and recycling of shift-register data creates rudimentary patterns which are used as modulation sources for the rest of the functions. These patterns operate as a primitive form of memory: the device samples data it has previously generated and recycles it. The same settings on one day will not necessarily produce the same or even similar results the next, and the patterns and points of variation and bifurcation will vary, sometimes hugely. Hordijk's own account describes the Blippoo's core principle: exploiting the chaotic behaviour of analogue circuitry to create "an apparent random state" from which the system "will soon find a new balance in a new stable state where it repeats another sound pattern." Tiny changes in a knob setting can produce dramatic differences in behaviour; yet "the particular design of the resonator and how it reacts when excited by the chaotic core of the Blippoo Box will impose a certain sonic character on the final sound, giving the instrument its own personality" (Hordijk, 2009: 37–38). This is an understatement, as the sound of the Blippoo Box is instantly recognisable. What comes out of these circuits do not always sound purely synthetic; while clearly electronic in origin they are "organic" and ambiguous; dripping, scraping, chattering, gibbering, sounds suggestive perhaps of water, wood, metal, bows, throats...

I use the Blippoo in many of the musical contexts I engage with; for improvisation, composition and performance, as a synthesiser, as a voltage generator and as an audio processor. The specific approach I take when performing as a soloist employs the technique of parallel cross-modulation between two Blippoo's, which I take as a score and which exponentially increases the unpredictability of the instruments and ideally creates longer unfolding musical structures from which a sustained performance can be built. Each machine modulates itself while also sending and receiving control voltages to and from the other. In my solo performances most of the patching regimes are exactly mirrored on each side, or as near exactly as analogue potentiometers and non-linearities will allow, so each Blippoo is both controlled and controlling parts of a complex and unpredictable recursive feedback network. I may look like a scientist when doing so, and it is unusually precision work but I am just as

much a herder of cats, or an overseer at a chimp's tea party. The process resonates with David Dunn's account of working with his own chaotic systems: "not to compose a familiar musical structure but to participate in the emergence of novel behaviour by perturbing the system in an intuitive and heuristic manner that encourages and retains its autonomous status" (Dunn and Kant, 2024: 293). This is the working method I documented in the album *Eight Studies for Copulating Blippoo Boxes* (Scott, 2024).

I think these recordings say something about how the concept of sonic plausibility is realised in the Blippoo Box: resolutely abstract and electronic, its sound shapes and textures nevertheless suggest many kinds of object, surface and texture which recall or conjure up real and imaginary objects, events and processes. I like to say, one is never alone with a Blippoo Box, and even less so with two. This lack of aloneness is important to me, because it is the initial stimulus for an approach to performance synthesis which I call the anthropomorphic shift, which expresses my perception of distributed cognition, a cognition that runs through the senses, synapses and consciousnesses and also more widely amongst the bodies, materials and processes, through biologies, physics and chemistries which we interact with, which form us and which I take to be more extensive and mysterious than the already established functions of cells, atoms and DNA (Levin, 2019). Anthropomorphism is kind of intentional misunderstanding, a wilful naivety enabling a particular kind of creative leap. Rather than attributing specific agency, this shift expresses the potential creative benefits when projecting an "as if" quality: as if the circuit were alive, as if it is a body, as if it were thinking. Once that shift in perception and listening is made, I like to think I extend into the machine as it extends into me. I become mechanomorphised; part of the circuit, part of a cybernetic body, in which agency comes from the interaction of functions within a circuit and is not directly attributed to any one element in that circuit, including my own actions and perceptions. From my experience the alternative, behaving as if the instrument is a tool under my control, or solely subject to my will or aesthetic intentions, ignores or overrides the potential of the machine's own generative tendencies, which often does not produce such interesting or unpredictable artistic results. The machine reminds me to listen. And when I listen, I am no longer in sole control of the thing I listen to; listening makes a space for the other, and for the otherly. So in making *Eight Studies for Copulating Blippoo Boxes* I tried to keep myself out of the way as far as possible, as Serge Tcherepnin once put it, to allow the machines to speak for themselves. In this context the distinction between playing and listening also seem to me less separate than they may appear: the imagination that a sound asks of a listener seems to me similar to what it asks of me as I play. Of course, I am playing the Blippoo, even designating the patch is playing it, but I am receiving, curating, overseeing and selecting rather than playing it as a traditional instrument (Scott, 2024). As performer, I am the first listener, and one thing the listener perhaps hears, whether they know it or not, is not only the machine, but also my listening.

The Hordijk Modular

Following the creation of the Blippoo Box Hordijk created a large format modular synthesiser, the Hordijk Modular, whose austere and conventional laboratory-like appearance belies a mass of creative ideas beneath, and is capable of creating an

extraordinary range of patterns and sonorities, some familiar as synthesiser sounds, some far more organic, animal, and others simply abstract and mysterious.

The luthier surely leaves the mark of their hand, their touch, their mind and intentions in every detail of what they create. The imposing instrument on my studio table is the embodiment of a man's life's work, the product of Hordijk's lifetime's absorption in the history of sound synthesis, physics, electronics and technology. Each was commissioned and hand-built, by Rob and various assistants, and when finished Rob would often swap out components or tune filters differently, sensing how minute differences might interact with the whole, so that each system was unique – the precision of the engraver. These tweaks were never fully documented, so “ultimate” versions of many modules never existed. Hordijk's ideas, his artistic voice, are embodied and encoded in every detail of the design, the circuitry, the surface and the intentions behind the creation of this electronic body. They are active in it, and they live in it.

One core idea that permeates this system is the image of sonic plausibility, as a design principle and an aesthetic specific to electronic music, expressing a quite specific space of movement and play between sound and imagination which I think also potentially extends beyond Rob's own instruments to electronic instruments in general. This instrument also contains traces, resonances and propositions which are less easy to identify. The meaning and purpose of such a machine is neither simply implicit nor explicit; rather, it is provisional on a much wider network of interactions, a node, a central node perhaps, but a node nevertheless, which requires a player, a composer, to unfold into practice, to shape musical form within a network of other meanings, influences and affordances. When playing it, whatever my own intentions, I am always working with Rob's own image of what a machine could do, and what it should do. Any idea I bring to it is almost always changed by what it suggests, by some eccentricity here and there, by the unexpected consequences of some cross-modulation. Rob's mind, his aesthetics and musical intentions are recorded in the machine, and when playing it I cannot escape them, or him. He might be gone, but through this machine we are still somehow collaborating.

Hordijk's own published account of his design philosophy (Hordijk 2009) describes the synthesiser as intended to “create music that has not been heard before” and to confront the player with questions about how shape, frequency, timbre and rhythm might be employed in musical contexts which demand we create our own aesthetics (Hordijk, 2016). The machine is a set of propositions and a series of questions and challenges which only listening, playing and composing can resolve.

Schaeffer, Smalley and the Sonic Imagination

Pierre Schaeffer was amongst the first to understand the radical break in sonic perception and cognition that recording and electronically reproduced sound represented. He heard the voice of a speaker captured and transmitted through a sequence of technologies; microphone, disc, tape and radio, and identified that a radical break in meaning had occurred: this voice had become disembodied: a ghost, a memory of a body, a concrete phenomenon, an independent object no longer

directly tied to the body that produced it. No longer simply a reproduction, the recorded voice becomes object, metaphor and narrative, a producer of new ideas and knowledge. In listening, the listener can reconstruct that body, reconnecting the sound with their imagination of the source that initially created it, a representative construction. And perhaps through his idea of reduced listening, which is more an analytic technique than a phenomenological proposition, the mind can appropriate something else from electronic sound, apprehending it no longer simply as a consequence of the events that may have created it, but as an object with its own independent-from-source behaviours and qualities (Schaeffer, 1966).

But the idea of a pure sound disentangled from all physical reference is easier to conceptualise than the idea of a sound disentangled from all cultural reference and I think Schaeffer was not so naive as to really believe in that possibility. There is no way around the fact that we have bodies, we have memories, we have culture, and we have both innate and learned experiences of our physical environments. All this informs and creates our listening. Even if culture and language could be entirely bypassed through reduced or deep listening, there is no pure information, our sonic apprehension and our subsequent cognition remains tied-to or escaping-from, what we have experienced, to one's stored knowledge about the behaviour of sound-creating bodies, to the gravity of objects, to the physics of bodies in motion and to the reverberations and resonances of events. So better, perhaps, to see reduced listening and the suppression of source-bonding as an attempt to make some space for sound to take on its own identity, as a technique for analysis, composition and listening, rather than as a radical theory of sound-in-itself stripped of all reference. Hence spectromorphological listening.

Denis Smalley's exploration of Schaeffer's concept through the concept of spectromorphological listening, in which listening comes about using similar cognitive mechanisms to those by which one perceives the implication of figures and narratives when viewing an abstract painting (Smalley, 1997). We hear and visualise sounds as actions and events, as expulsions of energy, as gestures, as textures, as existing in space, as higher or lower, as rising and falling, as harder or softer, as proximal or distal, as approaching or receding. All of these are metaphors created by how we apprehend, cognise and visualise sound, how we imagine sounds as existing within time and space, how we impose event structures, spatial plans and morphological narratives upon it. All this operates on principles of memory and representation, but the principle by which those mechanisms are able to operate might be the sense of plausibility, which reaches beyond representation or the recognition of source-bonding into the imagination of the possible. Each of these metaphors is an attempt to apprehend sound's essential abstraction, to somehow organise and categorise sonic experience, to remember and to recreate an image of sound, even as this transformation, to a greater or lesser extent, goes against the slippery nature of sound itself, which always contains a kind of otherliness, and which we experience first as sensation and only afterwards as sense or meaning.

Smalley suggests a hierarchically ordered form, which can help us locate sonic plausibility. He describes a ladder of what he calls surrogacy, running from the primal gesture of the body, through the recognisable gestures of instrumental performance,

to a third order in which a gesture is inferred or imagined but its source and cause are no longer certain, and finally to remote surrogacy, where any human action behind the sound has disappeared and source and cause becomes, as he puts it, unknown and unknowable (Smalley, 1997: 112). It is this third order that interests me most here, because it is precisely the order in which plausibility resides. Smalley elsewhere calls this the listening imagination (Smalley, 1996). We are unsure how the sound was made to behave as it does, unsure what the sounding material might be, unsure of the energy that set it in motion, and yet we do not stop inferring these causes, however abstract or otherly they may seem.

One consequence of Schaeffer's concept of reduced listening and source-bonding, and their transduction into Smalley's spectromorphology, is that sounds we do not recognise remain in inescapable play with those that we do, and which we continue to understand as representations of some kind of originating event or process, even when that representation is metaphoric rather than literal. The concept of plausibility embraces these metaphorical and imaginative aspects of listening, without reducing them merely to the confirmation of generic forms or representations, and yet without denying the constitutive power of either.

Synthesiser sounds carry another kind of reference too, one fairly specific to electronic sound. Many are heard, and described, in relation to the instruments that made them familiar: a sound that behaves like a Moog filter, that has the grain of an Oberheim, that opens and closes like a Buchla low-pass gate. Sometimes the reference is to a particular use rather than to the instrument itself, the funk bass of a Stevie Wonder record, say, so that a single timbre can carry a whole musical context with it, becoming sounds that become identifiable and generic. But that is a recognition of an instrument and its history and practice rather than of a physical source or cause; it is another mode of representation.

Trevor Wishart approaches a related question in *On Sonic Art* in which he distinguishes the internal structure of a sound from what he calls its landscape, the imagined source, the implied physical world from which a sound-image appears to have come (Wishart, 1996). Even where the source is unknown or unknowable, he argues, the listener tends to allocate a sound to some source, to hear it as having issued from somewhere; our perceptual apparatus seeming to be predisposed toward this interpretive action. Wishart asks if there is a natural morphology of sounds, whether certain shapes of attack, growth and decay carry, almost inescapably, the imprint of a physical cause? A sound proposes a world, not merely the recognition of a known landscape, but the constitution of a possible and imaginary one.

The commonly held idea of sonic novelty as a goal or precondition of synthesis is, in this context, I think rather questionable. If Wishart's assertion that there is no such thing as an unmusical sound-object is accepted, a "new" sound might be simply a sound or sonic context which we don't recognise, or whose potential form, implied environment or musical purpose we have not yet ascertained (Wishart, 1994). Sounds are not new in themselves but are only new for what they suggest is possible, and because of how they make us listen. How sounds combine, the

narratives and images they suggest, the forms they may imply, their plausibility as musical resources, how they might be set to work in musical composition, are more important questions than novelty.

Hordijk's instruments seem to me to dwell, quite deliberately, in a similarly uncertain register between sonic surrogacy and otherliness, and on the play of implying worlds that may or may not exist. They give the imagination something to grapple with without disciplining it as to how it should behave. This uncertainty is a space in which listening can function, less as a passive, indexical act, than as an active and imaginative experience.

Plausibility beyond Metaphor and Aesthetic

Plausibility was a metaphor and an aesthetic concept that Rob told me guided his image of sound and some of the choices he made in his design and selection of components and circuitry. He used the expression "plausible sounds" and told me that his predilection was towards electronic sounds that somehow seemed possible, sound worlds characterised by a certain kind of tangibility, an abstract realism, even if that tangibility is not based on the familiar or on acoustic reality. Plausibility was the term he used to express this.

While electronic sounds are not necessarily representative, or source-bonded, they can be tangible and plausible. Plausibility catches the action of imagination, of a listener who knows they are imagining as they listen. Tangibility, by contrast, although similar suggest something more more passive, more directive, still more strongly retaining the representative trace: listening as the comprehension of something potentially recognisable. Although both rest on a certain idea of recognisability, tangibility ultimately relies upon something known, whereas plausibility is a measure less of a known sonic reality than of a sonic possibility.

Inherent to this idea is that electronic sound cannot simply be reduced either to a distinct source, or to what is known and recognised. There is no inherent index to a fluctuating voltage, and every categorisation and apprehension of it is a kind of objectification. There is thus, in much electronically generated sound, a far greater play between comprehension, cognition and imagination - the whole sequence of listening and embodiment - than in the more ordinary case of, say, a recording of an acoustic guitar, which we generally readily refer to a guitar, or at least to some physically existing vibrating body. But this is a difference of degree, not of kind, and the same line is sometimes crossed from the acoustic side. Played with extended technique, an acoustic instrument can also withdraw its source almost entirely: with our eyes closed we may not hear Magda Mayas's preparations as a piano at all, nor Mazen Kerbaj's breath and valve-clatter as a trumpet and we may be unable to separate the electronic from the acoustic, or indeed identify any individual instruments in an AMM improvisation. Interesting that many acoustic musicians, for example trumpeter Birgit Ulher, saxophonists John Butcher CHRISTINE ABDELNOUR and seem directly inspired by and may even mimic electronic sounds. Foley relies upon a similar slipperiness; crushed granola becomes an avalanche and we recreate a source that was never there. Source-bonding is never simply given; it

is an action made by the listener, and while escape and disruption of the index is potentially possible for any sound, it is more concentrated and typical in electronic sound, only because it is here that the physical index is most easily and most fully obfuscated.

Without relationships and axes, without metaphorical images of growth and decay, of line and movement, we can hardly conceive of sound at all. So the concept of sonic plausibility contains within it the admission that not only is what we hear is “not real”, but that it depends on the active imagination of the listener for it to become “real”. Plausibility implies more than a sound object or imagined source, it suggests context, environment, habitat; a series of relationships of imaginary time and space from which we can construct a shape, morphology and trajectory.

I have been describing sonic plausibility primarily as something a listener connects to engages with, but the same thing happens, perhaps even more strongly, when playing and composing. The player is a listener too, at least we should hope they are. The anthropomorphic shift and plausibility here are, I think, different aspects of a similar cognitive leap. Granting a sound a possible source and granting the instrument a kind of agency are both varieties of “as if”, they are both wilful and creative misreadings. Others have described the instrument as a cognitive extension: Magnusson’s epistemic tool, the “scaffolding onto which we offload parts of our cognitive processes” (Magnusson, 2009: 168); and Di Scipio has described the performer, the processing system and the room as a single self-organising ecosystem coupled through noise (Di Scipio, 2003). While these ideas correspond with the thinking behind my my twin Blippoo Box performances, my emphasis here falls elsewhere: less on the system’s autonomy than on the listening that runs through the entire process of playing, composing and listening, which includes but does not necessarily always prioritise that autonomy. Whether I am imagining a source, imagining that the thing in front of me is in some way alive, listening to a recording of Bernard Parmegiani or Axel Dörner - in which the acoustic and electronic are playfully confused - or listening to a concert of Thomas Ankersmit - in which I experience sound both as an abstract spectromorphology and as air-pressure; a physical force pressing directly on my eardrum - I hear the slippery ambiguity of sound, which both references and escapes from reference, and between these two lie its plausibility.

Between Imitation and Abstraction

Plausibility is an ambiguous concept sitting between representational and non-representational poles. At one pole, physical modelling can closely reproduce impacts and resonances, the vocal tract, or other relationships of tone production and resonance that characterise acoustic instruments. But that is not how I understand sonic plausibility or wish to develop it as a concept. Representing a sound as closely as possible to an imagined source is a very different phenomena from sounds whose sources and generating forces are obscure or unknown, and require a more active kind of imagination to be interpreted and memory we embody not just of sounds but of the physics of objects, weight, gravity, impacts and disintegration. We

hear an impact and we imagine the event that precedes it, or the energy that creates it; we imagine the acoustic context that gives it duration, decay and resonance. But the listener to electronic music or electronically reproduced sound is not merely recording and checking each sound against an index of sounds they already know. They are imagining the qualities and motion that could make those sounds possible. Listening is an act of imagination and re-creation. While plausibility is not merely a transducing or representation of the known, neither is it free of it. It is an extension of listening from what we imagine we know into a barely imaginable unknown.

The TWINPEAK filters in the Blippoo Box and the Hordijk Modular, when pinged, give percussive articulations and water-like drips, sounds with the weight and decay of something striking or falling, though nothing has struck or fallen. This is not unique to Hordijk's designs, similar qualities may be found in various circuits from example from Buchla, and Serge and others, but I feel Hordijk took it further. The Benjolin can be coaxed into bowed, cello-like sonorities, with the friction and pressure of a string under a bow. The Rungler and the OSC-SYNC throw out noise textures and shifting patterns that sound as if they might be grown and living rather than generated, more like massed insects or shifting weather than circuitry. They are at once strongly organic and entirely ambiguous; they remain otherly, carrying something of the behaviour of natural physical events without literally representing them. While the TWINPEAK is the most explicit example, similar qualities are created by many of Rob's other circuits, his OSC-HRM, his Phaser, the OSC-SYNC; although they can certainly sound entirely abstract and otherly, they create behaviours that feel organic, that have a certain dimensionality, or textures that seem knowable, familiar, that seem plausible, even if our ear does not know why. Sonic plausibility is an embrace of this kind of not-knowing; a sound that has the characteristics of something that could exist, but not necessarily in the world we know, sounds that might appear to be determined by different rules of physics, different gravity, different chemical make-ups. In order to make sense of such a sound as we listen we imagine not just a sound, but entire contexts; habitats, environments and ecosystems against which individual sounds might be thought to exist.

Earth to Earth, Ashes to Ashes...

Rob requested that when he died I should receive some of his ashes, to do with as I wished. After quite some reflection, I asked if I might perhaps build them into some kind of synthesiser, which only seemed appropriate. He was delighted with the idea and gave it his blessing. With Martin Howse and Biyi Amez, whose ERD/ERD circuit shapes audio and control voltages by passing them through soil, we made a waveshaper module from the ashes, mixed with soil from his garden in Majorca for greater conductivity. Its faceplate bears an image of Manjushri, the bodhisattva of wisdom Rob felt closest to, with the associated Tibetan mantra inscribed beneath. It is a far dirtier, more non-linear circuit than anything Rob himself would have designed - and yet it pairs well as a wave-shaping and distortion stage, especially with his own OSC-HRM harmonic oscillator. It is at once relic and tribute, a contradiction (the circuit, after all, is Howse's, not Rob's), and a symbol of the luthier's ever-present trace in the act of sound-making: an extension of his sonic world, and of our ongoing collaboration.

Conclusion: Glimmer and Trace

Suggested to me by Rob Hordijk, sonic plausibility is a concept I have developed beyond his own use of it. It defines a relationship whose resonances rely upon contact, connection and imagination. It is that part of an abstraction which engages our memory of sounds and forms, and our experience of the laws of the physical world, yet is not limited by these memories and reference points. Sonic plausibility is an ambiguous concept, it points in two different and perhaps opposite directions, existing between and within multiple contexts, and between representational and abstract states. The plausible sonic object represents the potential for an emergent experience, glimpsed through cracks in knowledge that reminds us of incompleteness and provisionality. While it may retain representational or descriptive qualities, it is altogether something more mysterious, a synaesthetic presence whose timbral qualities and behaviours stimulate resonances and suggest environments and narrative relationships through the cognition and imagination of the listener. Such an object cannot be reduced to the functions of cipher, symbol or metaphor, though it may contain aspects of all of these. Listening to such an object cannot be reduced to reception, deciphering or interpretation of something external to it. It does not pretend to stand alone, it can also be active, creative, expansive, pointing outwards.

While sonic plausibility has an aesthetic dimension it is not a concept that we can understand only as aesthetic; because its contexts are collective too, and this radically impacts all its meanings and relations. It exists within the contexts of the connections between people who imagine and realise electronic instruments and those who play them, are played by them and who listen to them. Sonic plausibility exists within the context of such interaction and unfolding of bodies and lives; communities, practices and practitioners influencing each other in both tangible and intangible ways, working towards music that has not yet been made, that is being made and worlds that are not yet known. The plausible sound gives us a glimmer and trace of these worlds, and perhaps even brings us momentarily closer to them before they slip away. And this slippage is also part of its meaning. Sound and its significance escape us as surely as its sources: out of the room as vibration, from its source as abstraction, out of our categories into a world we do not inhabit, but might. Apart from admitting what escapes, the concept allows for the unknown, the unrecognised and the uncategorised; it keeps alive the potential of new experiences, new sensations, without condemning them to be simply parts of an unreachable sublime. On the cusp of the virtual, the plausibility of sound reminds us that new resonances, new kinds of sense and meaning are possible and can be experienced; even while the world we know so often seems to insist that they cannot.

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