

Environments is an 85' work for amplified ensemble, live electronics and soundtracks consisting of speech recordings and pre recorded materials. The piece employs a special setup, built around a collection of microtonal, re-strung guitars which are extended and complemented by an ensemble of winds, vibraphones, Bayan, keyboards and synthesizers. Starting in 2017 the compositional work on *Environments*, with its heavy emphasis on sound design, was an uncommonly long and detailed process; from the first sketches in 2017 and the initial performance of *Watts* in 2018 eventually extending all the way through the production process for the cd recording well into 2020, encompassing nearly four years of my life.

The work consists of three continuous movements, *Mono*, *Watts* and *Stereo*, and seeks to explore some of mankind's intellectual, spiritual and political 'pursuits'. Each movement translates these 'pursuits' to an accompanying philosophical 'concept' which is then mirrored in the compositional technique as well as the overall sound design. In this way *Mono* deals with the concept of Linearity, *Watts* with the concept of Cyclicity and *Stereo* with the concept of Polarity. As a whole *Environments* can perhaps be seen as a requiem of sorts to some of the ideas and ideals of the 20th century. Ideas which are by no means depleted or devoid but, due to their inherent 'slowness', will have to be redefined again for our digital age.

An important part of *Environments* is devoted to the interplay between music and pre-recorded speech. Each of the parts is accompanied by a speech track which in its own way illustrates the ideas underlying the music. The texts, all clearly Buddhist in nature, are spoken by three different narrators, each with their own speed, tone and pacing, and are taken from the travelogue sections of Robert Pirsig's *Zen and the Art of Motorcycle Maintenance*, a 1970's radio broadcast by Beat philosopher Alan Watts and an expanded version of *The Principle of Polarity*, as formulated in the somewhat mysterious *Kybalion*. The work then proceeds to play out a game on several simultaneous levels, between the musical logic, the spoken content and the ensuing sonic design, thereby requiring an alertness of the listener on multiple levels at the same time.

Underneath *Environments*, in its own 'pursuit' decidedly idealistic, perhaps even completely Utopian.. lies a personal inquiry into our current times and prevailing ideas about context and simultaneity, expressed perhaps most perfectly via the modern creed 'Broad is the new Deep'. Both aspects, 'context' (combining space, time and location, both present as well as past and on literal as well as metaphoric levels) and 'simultaneity' (through the combination of autonomous musical material with found, pre-existing material, each with their own

specific messages and meaning) served as focal points of investigation in an effort to gain more insight into our present-day quest for narrative and an all-enveloping 'experience'.

Can autonomous messages be digested simultaneously? In which ways does simultaneous listening effect the combined components if both wish to remain independent? How do we listen? And how does a composer navigate around this?

Perhaps most importantly: what is the added value? Does one medium automatically go at the cost of the other? Or does 'broad' ultimately require just as much depth as 'deep'?

Starting from one-dimensional 'private' pursuits (expressed through the metaphor of the road) *Environments* gradually travels outwards, via transcendent pursuits (expressed through the idea of how man organizes time - i.e. 'life' - or vice versa) and eventually ends up on a more worldly, dualistic plane, where political pursuits and ideas of opposition are eventually wiped out and irredeemably lead back to the single, one-dimensional line: the *continuum*, which, like Shakespeare's 'actors' on the stage, perhaps dictates more of individual life than most would care to admit.

Mono is the first part of *Environments*. The score consists of a single line (basically a never-repeating rhythmic ostinato) set for 2 restrung 'unison' guitars, 2 synthesizers (equipped with banks of modified synthetic guitar samples), Bayan, piano and sine pulse phasing. The musicians all read the same line but with different instructions for each. The piece loosely pursues the idea of 'Linearity', as a kind of metaphor for Man's private, intellectual pursuits. This idea is expressed both through the single-line score as well as through its quasi unison character.

The overall sound of *Mono* was dictated to a high degree by the resonant qualities of the so-called 'unison' guitar: a form of partial restringing where the original thicknesses of the guitar's strings are retained as much as possible but are tuned up and down to approximate unisons with an overall range of ca. 50 cents. When played continually in sequence the soundboard amplifies the resonance and gradually produces wonderful strings of overtones.¹ This sound world was then translated outward to the rest of the ensemble, extending it to synthetic counterparts (the synthesizers), to the enormous soundboard of the piano and to the microtonal pulse oscillations of the sinewaves, with an independent part for Bayan

¹ This somewhat 'primitive' instrument I later found to have some historical precedents, in for example the Korean Geomungo: a member of the Zither family which similarly employs an abundance of primes and octaves in its tuning (four of the total six strings), is equipped with a wealth of wildly different materials for its individual strings (thereby determining 'character' more through color than through pitch) and manages to conjure up an abundance of overtones due to the soundboard's amplification of the harmonically-related open strings.

instructed with no more than to 'pick up the sounds in the air'. The piece then goes through three phases, each time gradually building up a 'six string' situation (where all 6 strings/sounds are in play) before winding the process down again.

The speech track to *Mono* is taken from the travelogue sections of Robert Pirsig's *Zen and the Art of Motorcycle Maintenance* and proceeds in a similar kind of fashion as the book, as a sort of road trip, with the voice articulating a journey as it proceeds. The speech is more-or-less 'laid over' the music without any further intentional design. An interesting side-note to the text is that the music was in fact long-written before the text was found. Though the topic of 'linearity' was clear from the start, finding a suitable text which had both a sufficient quantity of words (specifically in the form of a described journey) and ditto philosophical content was a journey on its own. Any inference between music and text, though clearly present, is thus in fact entirely circumstantial.. (and, I would like to think, quite in the spirit of Pirsig's own methods of composition).

Watts is the second part of *Environments*. *Watts* uses the identical rhythmic form employed in *Mono* but now redefines the six 'unison strings' as a continually repeating 6-note arpeggio, set for solo acoustic guitar, 3 winds, Bayan, 2 vibraphones, Fender Rhodes, Electric guitar, Sinewaves and pre-recorded tracks. The main bulk of *Watts* is essentially one long canon, consisting of a multitude of little self-referential melodic cells which with each new entry renew themselves at the front while the former cells recede to the back in sentences of ever-increasing length, thereby serving both as a form of acoustic echo as well as a symbolic image of continually receding memory. Not unlike a snake eternally biting its own tail. Once initiated by the first vibraphone the other 'solo' instruments gradually enter, expanding the harmony as well as the number of echos in the air and serving as a sort of replica of 'the watch' as well as 'the compass' ('*not only left and right*', but also '*above and below*').

The content of *Watts* revolves around two central ideas: that of the 'continuum' and that of 'cyclicity'. 'Cyclicity' is pretty much covered in the circling sound design, the setup of the players, the eternal ups-and-downs of the ostinato and the long-developing, ever-renewing cells where the first thing is always the last. The idea of the continuum, hidden as it is meant to be, however reveals itself only as the speaker introduces it.

The speaker in this case is the famous Beat Philosopher Alan Watts, well-known for his many books and radio broadcasts of the 1950's and '60's (and known again to the current generation by his seductive vocal cameo in the Hollywood movie *Her*). The speech was actually found right in the middle of the composition-process, when most of the music and its flow were

already long-established and in fact quite immutable. As an experiment to test the effects of 'context' (following some lively debates with students) I decided one day to simply lay the speech over the already established contrapuntal flow to see what would happen. To my great surprise both tempo and flow of the speaker, for at least 80% of the entire speech, seemed to naturally fall into the flow of the music, on the way unexpectedly 'pointing out' musical properties which may have already been there but suddenly became endowed with some kind of 'meaning' (thereby instantaneously 'proving' the potential of context...). Little doubt thereafter of including it. For the greater part the speech was then preserved as is, retaining most of Watts' original flow but chopping the 12' speech up into 4 separate chapters with slight pauses between various fragments to line up with instrumental entries.

The inclusion of the speech left its immediate impact on the content of the music, such as in the gradual emphasis on the *continuum* (as time and memory recede the 'background' gradually increases), the pursued 'lushness' of the textures and even the 'electric hum', which finds itself hidden somewhere in the basement of the gradually evolving 'Watts chord' in the sinewaves.

Needless to say the beautiful world spelled out by Watts ('*no organization, no hierarchy, no doctrines.. only music and ritual*') became quite an ironic affair when trying to reconstruct its actual operating in a - highly organized - piece of music. In that sense one could say the piece failed utterly, given that merely 'experiencing' is after all something quite different than 'making'.

Stereo is the third part of *Environments* and, of the three, by far the most symbol-heavy and the most of our time. The work deals with the concept of 'Polarity', as an expression of man's ideological or political pursuits. And it's a grim business. The work seeks to manifest polarity in every facet of its organization while simultaneously undermining/denying the very existence of polarity from the start. Like *Mono* and *Watts*, *Stereo* again resorts to an ostinato (now set for restrung electric Baritone guitar), taking the original score from *Mono* but now stripped of its rhythm, leaving only the gestural development played at high speed.

Where *Mono* could be said to be a 'line' and *Watts* a circle, *Stereo* is definitely a square, defined by artificially erected borders. These borders are implied in the setup, text treatment, sound design (with each players' sound coming from the opposite side of the room) and even in the bar-divisions of the work, where the music changes indiscriminately every 16, 24, 32, 48 or other such multiples of 'square' bars.

Underneath *Stereo* lies a familiar yet at the same time mysterious text, the so-called *Principle of Polarity*, which appears to have been printed for the first time in this particular form in a book called the *Kybalion* (though its origins most certainly date back much further, considering the familiar Buddhist tenets of Yin and Yang). This text, in itself flexible and frequently used in changeable formats and wordings, served as the basis of *Stereo* and was, after due research and consideration, ‘updated’ on several points by the author himself and cast into the present form. In the case of *Stereo* the speech is set entirely rhythmically, meaning that individual sentences are chopped up into words and phrases and then placed ‘evenly’ at approximate distances of 4, 8 or 16 bars, separating each ‘opposite’ and creating an artificial but emphatic form of timing due to the imposed silences between utterances.

Of the many facets of opposition and duality expressed in the work, metaphoric as well as literal, some are perhaps interesting to point out: such as 1) the harmony itself (consisting of a layering of two entirely unrelated harmonies, the *Watts* chord and the reconstructed synth chord - originating from a synthetic speech demonstration video found online with fragments from David Cronenberg’s first film *Stereo*)², 2) the stereo sine-pulse phasing (where two independent speeds interlock and phase, thereby automatically creating ‘unity’ when the ears can no longer tell them apart or tell the difference between up or down), and 3) the two juxtaposed materials which run the entire course of the piece: the attack sections and the ‘Run’ sections. On an analytical level the Runs themselves also constitute a ‘duality’, with the two ‘opposing’ harmonic series on the fundamental and the tetrachord (ostensibly the ‘furthest removed’) in fact being practically identical where the upper end of one is in practice the lower end of the other. For the audacity of the author to ‘expand’ on the original text the work also includes a metaphorical allusion in the form of two morse-code entries which refer back to a track from David Byrne and Brian Eno’s seminal album *My Secret life in the Bush of Ghosts*. Thereby not excusing the additions, but at least apologizing for them..

Through its own working, *Stereo* eventually seeks to cancel out all forms of contrived polarity as the various materials gradually coalesce and combine, with the runs increasingly overlapping until the borders can no longer be told apart and the multitude of independent lines which constitute the piece eventually all combining simultaneously just prior to the speaker’s final entry. [PA]

² The polarity of these two chords is probably most notably revealed at the very end of the piece, when the *Stereo* synth chord is subtracted from the overall sound leaving only the *Watts* chord remaining, with a sudden tonic shift.

Q & A

@Peter. Alessandro Barricco's *The Barbarians* was an important influence on this work. What's that book about, and how does it relate to *Environments*?

Baricco basically deals with the decline of 'depth pursuits' in our current age. The move from 'diving' (in order to obtain 'depth') to the act of 'surfing'. In other words the motion from 'deep' to 'broad': a significant paradigm shift supplied by our fast lateral motions over icons on screens. The book helped me to better understand the times we are living in and what was 'lost' and for which reasons. The book resonated with me especially while teaching younger generations of composers and trying to comprehend their worlds. The topic of 'context' (for a long time anathema to me) was a springboard towards understanding this shift. Thanks to the convincing talents of some of my students it forced me to investigate the working of context and directly contributed to the inclusion and layering of (pre existing) speech and other 'found objects' in *Environments*. My conclusion however is that 'broad' - in the long run.. requires just as much (if not more) depth pursuit as 'deep'.. well, at least within my own dinosaur mentality!

@Peter. Could you talk about the choice of instruments, musical materials and sounds?

The instrumental setup basically proceeded as a long but organic development, starting from the sound of the restrung guitars. The 'commission', being quite free - sometimes terrifyingly so as the work grew and grew and grew without any seeming limitations.. allowed me to think about the total sound world I was chasing after. Not only pertaining to the instruments I should add on to the basic Klang setup but also to what seemed a nearly unlimited ability to add on in sound design. Selecting the instruments was tricky but logical, the guitars were doubled and extended to every variety, synths were deployed as special features to complement the sound world, the vibes were doubled and the Bayan was included as a perfect linkup between the struck world and the breathing world. The whole topic of 'memory' and spatial depth in *Watts* then prompted the rather gargantuan pilings of pre-recorded materials, designed to fill the entire space (something which then had to be reproduced in a different way for the CD mix). The pre-recorded materials for the loudspeakers were chiefly derived from the acoustic sources but then gradually (by the time of *Stereo*) started including pre-existing sound sources, which in some cases had to be rebuilt from scratch - such as the synth chord in *Stereo*. The live stereo sine pulse phasing was a special feature which was designed specifically for this piece.

@Peter. Likewise, why did you choose these texts?

I keep on wondering whether I actually *chose* those texts.. it's more like I stumbled into them with an antenna out. *Watts* was certainly just 'found'. I knew the piece was about cyclicity, I loved his voice, his message and the manner in which he spoke.. seemingly improvising his way around some pretty profound topics. The content of course also had meaning to me. But I was looking 'with an antenna', a Buddhist antenna. That one just jumped out to me. Especially when the whole pacing just seemed to naturally fall into the piece. I'd say that text 'chose me' instead of the other way around.. Sounds 'precious' but so it is. Finding texts is very difficult if they have to fit into a kind of 'agenda'. And that agenda is certainly there. How I came to the *Kybalion* I honestly can't recall. The topic was in any case supplied by a collection of musical 'dualities' I was already toying with, plus, to put it frankly, the deplorable mess the world is currently in - full of intellectual intolerance and laziness left, right and center (well, mainly left and right..). Somehow this brought me to the law of polarities expressed in many Buddhist tenets. Tenets which I hold to be true and the willful denying of which simply tends to lead to all kind of human conflict. So, that one - consciously or subconsciously - became a sort of statement.

The use of *Zen in the Art of Motorcycle Maintenance* in *Mono* seems utterly logical yet it was actually the hardest to find. I of course first read the book some time in my early twenties and it left a deep impact for whatever reason. Originally I was looking for a specific kind of journal, preferably by a scientist, documenting a step-by-step journey towards a discovery. I checked out Mandelbrot, Penrose, Wolfram, Cantor.. nothing. No sage mind that simultaneously documented the discovery as well as the road to it. I think at the very last minute, two weeks before the first rehearsals, I half-heartedly decided to check out the good old classic since I knew it contained a journey but didn't feel much like the philosophical peregrinations, preferring the illustration of philosophy through an actual act. As it turned out there was exactly enough travel description + reflection to fit in. And now there could be no other text.

So, the texts.. I honestly don't know if I actually 'chose' them or if it was the other way around..! In any case, none of them came at 'the start' of something, always half-way through or even far after the music. If the text was found half-way through it then started exerting influence on the content. So, the speech in this case says something about the music and not vice versa. Although.. well, etc.