Introducing MANTRA

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This paper was prepared for the first performance of MANTRA in Wellington, New Zealand, on 16 July 2009, by the duo Xenia Pestova and Pascal Meyer, with Philip Brownlee (sound projection).

Stockhausen’s Mantra for two pianists is an outstanding example of 20th-century classical avant-garde music. But it is also clearly attached to an older and familiar tradition. Like The Well-tempered Clavier, the “48” Preludes and Fugues composed by J. S. Bach, this is music that studies the harmonic consequences of the western system of fixed tuning that we call just or equal temperament.

In the familiar Bach Prelude No. 1 in C major the “Mantra” element is the arpeggio pattern that stays the same up to the final coda and is played twice in every measure. The pattern remains the same while the music modulates from chord to chord. In doing so the finger positions change: sometimes the intervals are wider, at other times closer. As the shift in tonality becomes more extreme, foreign black keys are introduced and the music becomes more and more dissonant, like a ship borne by the tide into an alien Sargasso Sea.

In all my dealings with him, Stockhausen insisted that explanations were not a good idea, that they freeze up the imagination and destroy a listener's sense of magic and wonder. I understand that. Explanations should not detract from a listener’s sense of wonder. Whenever I hear Mantra I am inspired all over again, and the nearest I can get to explaining that inspiration is to say that the music transports the imagination to those marvellous images of galaxies in formation, jewelled webs of light stretching unimaginable distances in space, first relayed to earth by the Hubble telescope all those years ago.
If I were talking to an audience of small children seated cross-legged on the floor I would describe the music as a fable unfolding on an imaginary movie screen showing a faded clip from a Disney fairytale of the night before Christmas “when all through the house/ Not a creature was stirring, not even a mouse”. A scene of Snow White silently tucking two children into their beds, the children going to sleep and their thought bubbles interacting as they dream fabulous visions. On bedside tables, ready to ring into action at a moment’s notice, alarm clocks tick, tick away. To my young audience I would say that the two pianos represent the two beds, the wood-blocks and tiny cymbals the alarm clocks, and the electronically resonating music the magical dreams and visions of innocent children.

If an older person were to ask what this music is “about”, the real and banal answer is that it is about map-making or navigating in pitch space. This is a challenge peculiar to keyboards and conventional notation, because unlike the voice or the violin, which can adjust to the correct tuning at each and every note, a keyboard instrument operates on a fixed grid of pitches which can only ever be approximately harmonious in any one key. Map-making and music notation evolved hand in hand, so the same navigational skills which enabled Captain Cook to chart his way around New Zealand and the Pacific, are also revealed in the care and elegance with which a composer and his crew pilot a rhythmic or melodic gestalt from a safe haven to a distantly related key, and back again. They are the explorers, while the audience, you and I, are the aliens on unknown shores.

Mantra was planned in a faraway place—in Osaka, Japan, on the other side of the world from Cologne—during a time of personal and private limbo, during the six months of the Expo ’70 world exposition, a time when the composer and a small group of associates performed daily at the German Pavilion, a geodesic dome designed by Stockhausen and equipped with speakers all around, along with a control desk from which the composer was able to make the sounds of music spin and fly
through the air. These were no ordinary concerts, more like open master classes in advanced method acting for musicians. For the previous ten years, after travelling to America and being introduced to the inspired conversational music-making of John Lewis, the Modern Jazz Quartet, and Count Basie and his orchestra, Stockhausen had laboured with only limited success to discover ways of igniting the spark of creative invention among musician colleagues of the conservative European tradition. By day the group polished their skills in intuitive group music-making in front of a polite, bemused and mainly Japanese audience. By night Stockhausen worked alone on a compositional plan that was totally specified and controlled to the very last syllable. Mantra is a masterly synthesis of the significant influences in his musical life that he most desperately wanted to put behind him, a last-ditch attempt to consume, digest, and thereby eliminate his musical heritage. Uniquely for Stockhausen, this is a neoclassical, modal, conventional twelve-tone, and utterly deterministic composition. By the very nature of the process it amounts to a personal diary. For those of us left behind, it remains as the diary of one who vanished.

In place of Bach’s simple arpeggiation, Stockhausen’s repeated mantra or formula is a tiny constellation of twelve tones incorporating a range of functions—accents, dynamics, rhythms, and intervals—that emerge to prominence one by one to bring character and function to the various parts or movements of the body of the composition: an ostinato, an accented chord, an ascending scale, a tremolo, and so on. The entire work germinates organically from this sample of genetic code which begins on the note A, expands outward in a form of mirror counterpoint, and returns to A. The symbolism of A 440, the tuning note, is Aleph, alpha, the beginning of all things, hence the message of the formula is “My end is my beginning”. The first time I heard the oscillating minor thirds and upward leap of a major sixth of the Mantra formula I recognized key elements of the opening theme of piano piece Opus 11 No. 2 by Schoenberg, which I learned as a teenager and knew by heart. Symmetrical formulae turning on the note A are key features of Bartók’s Music for Strings, Percussion and Celesta (the first movement coda) and in more lively guise, the
second movement of Webern's Op. 27 Piano Variations, in which pairs of notes like electrons whirl and zing around a nucleus. The mirror-symmetry in both cases is significant, and also the date: both works were composed in 1936. For the postwar Darmstadt generation of serial composers, mirror-imagery takes the form of a symmetrical all-interval series, the utopian generative principle commended by Herbert Eimert, Stockhausen's mentor and coeditor of the periodical Die Reihe, and adopted by Boulez, Stockhausen, and Nono.

In Mantra the sound of the two pianos is refracted through a modulating tone which reveals each note in the chromatic scale as more or less “in tune” with nature. As the work progresses, new modulating tones succeed in a sequence representing the original formula on a greatly augmented timescale. The effect of changing the modulating tone is to “retune” each piano to a new frequency. It amounts to a modern equivalent of classical modulation from key to key. Because the interval proportions of fixed piano tuning remain the same, a different pattern of dissonances is created at each degree of transposition, the notes of the scale varying from warm and fuzzy near-unisons to more strident, clangorous, or glassy qualities at more distant intervals, as though one were listening to music in stereo on a short-wave link to a far-off planet.

Great music is like great wine: it embodies a history. When a great wine is tasted with attention and knowledge, the combination of sensations tells you where it comes from, and how it was made: everything, the grape, the soil, the climate, the skill, the tradition. Great wine expresses its quality in a harmony of complexities and intense “notes” of scent and flavour that make music in the mouth and linger in the memory. In great music it is the same. In Mantra a listener is able to detect echoes and allusions to a western tradition of music-making that reaches beyond the medieval astronomers to biblical times: beyond Schoenberg to the original tale of Jacob's Ladder, a musical myth from ancient tradition about Jacob wrestling with the concept of a stairway to heaven, a message in which the word scala or “ladder” signifies a
musical scale leading upward to a heavenly realm of perfect harmony and proportion. Listening to *Mantra* brings to mind the mystery of Kepler’s music of the spheres and the mathematical 31-tone scales of Zarlino and the elder Galilei, through Bach’s well-tempered clavier and Schoenberg’s air of other planets to the present day of *Sur Incises*, Boulez’s study in the deconstruction of tonality and temperament composed for multiple keyboards.

As a student Stockhausen had occasion to hear all of Schoenberg’s piano pieces performed as a group, in a series of concerts given by Else Krauss in December 1949 at the Music School in Cologne. The Head of School, Hans Mersmann, had been a clandestine supporter of Schoenberg’s music throughout the decade of Nazi suppression, but even as late as 1949 Schoenberg’s music was still widely regarded in the profession as degenerate art, and performing such music as anti-social and anti-public order.

Another connection linking *Mantra* with Schoenberg is Stockhausen’s blend of expressionism with a deliberately academic style of part-writing, at times very dense and interlocked, a Brahmsian trait of Schoenberg’s piano scores which a listener is tempted to interpret as the younger composer saying listen here, I can compose in the great tradition as well as anybody. Scrupulous controls of timing and phrasing in *Mantra* are in the best Viennese tradition of Schoenberg, Berg, and Webern, and beyond them to Mahler. In between lie stretches of ostinati and dotted rhythms that, whatever their structural role, are unavoidably connected to the neoclassicism of Stravinsky’s *Concerto for two Pianos*, a gesture of respect, I like to think, toward the composer who not only made the remark “music expresses only itself”, but who at the age of 75 made a pilgrimage to the electronic studios of Cologne Radio and paid generous tribute to the genius of the young composer of *Zeitmasse* and *Gruppen*. Stockhausen returns the compliment in *Mantra* by paying tribute at the very outset, after the introductions, to the mastery and vitality of Stravinsky’s ostinato writing for two pianos.
As the form-plan of *Mantra* evolves, the internal structure of the formula expands like a balloon, stretching out across the full range of the keyboard until the musical texture has thinned to a point where it begins to resemble the Boulez of *Structures* for two pianos, an early piece from 1951–52 that is bound to have impressed Stockhausen, and that I will always regard as a work of voluble genius, enormous precision, and danger. Music very similar in texture and “delirium” to Boulez’s *Structures Ib* for two pianos can be heard in what I call the “fast rewind” section toward the end of *Mantra*. In such moments where the series and its contrasts are pushed almost beyond the limits, one can sense once again the creative ecstasy and excitement of the atmosphere in liberated Paris in the years after the war, that inspired a nuclear generation of young composers led by Boulez and Stockhausen to embrace a pointillist aesthetic.

Elsewhere in *Mantra* added percussion inject sparkle and effervescence recalling another influence from the early 1950s, the visits to Europe by American composer John Cage and the strangely liberating sound of his music for prepared piano, for example, the *Interlude No. 3* from *Sonatas and Interludes*. Stockhausen did not like it, I have to say, if I mentioned Cage and the prepared piano and *Mantra* in the same sentence. Boulez was another former advocate who grew to reject the prepared piano in later years. The Europeans came to feel increasingly uncomfortable with the rustic quality of Cage’s invention alongside their own sophisticated and exact standards of serialism and electronics. My own response was always to say that’s all very well, but Cage led the way: he was the first to transform the piano into an instrument of magic, and he did it before electronics came along, using methods designed nevertheless to achieve the same result, to alter the sounds internally and create entirely new and otherworldly sonorities. *Mantra* took the process a good step ahead by introducing ring modulation, an analogue process. Since then, Boulez and his IRCAM associates have taken the process even further in a series of interactive compositions for solo instruments and digitally manipulated sound, for example
Anthèmes for violin, and Dialogue de l'Ombre Double for clarinet. However crude Cage’s prepared piano may sound in retrospect, it did the job and started a long and fruitful train of thought that continues today.

Stylistic and character traits such as the above are like the “notes”—citrus, earth, berry fruit, violet—that identify a wine of quality. Other features indicate workmanship: they include structure, balance, length, complexity, finish. These have to do with how the notes integrate to make a satisfying and complete experience. When we think of structure, for example, in the world of classical music the combination of two pianos and ancillary percussion is actually quite rare. In this sense the ancestor of Mantra has to be Bartók. During the 1930s, when Stockhausen was still a child, the Swiss conductor and patron Paul Sacher commissioned a number of composers to create concert works for a new symmetrical ensemble, consisting of matching left and right halves and percussion in the centre. The composers were Bélà Bartók, Bohuslav Martinu, and the brilliant young Igor Markevitch, remembered today as a conductor. Markevitch began the trend in 1932 with L’Envol d’Icare, “The Flight of Icarus”, the acknowledged model for Bartók’s Sonata for Two Pianos and Percussion and a duo in which the second piano interestingly is tuned a quarter-tone flat, extending the range of pitched sounds into new and unchartered harmonies. Composition of the Stravinsky Concerto for Two Pianos, which of course has no extra percussion, began in 1931 but the work was only completed in 1935. Bartók’s Music for Strings, Percussion and Celesta dates from 1936, the Sonata for Two Pianos and Percussion premiered in 1937, and Martinu’s Double Concerto for Two String Orchestras, Piano and Percussion is a work from 1938. Together they form a very unusual cluster of compositions in stereo formation with balanced ensembles of pitched instruments to either side, and percussion in the centre, and all are connected by having either been commissioned by Paul Sacher or composed by someone close to him.

The sudden emergence of this obsession with symmetry, which we have already
noted in Webern at this time, is historically fascinating. How does such a coincidence arise? We know that Sacher was personally interested in the symmetries of Italian music from Monteverdi to Vivaldi, which is one thread. There are others. The 1930s was a decade of rapid technical advance in sound recording. The record industry was in a depression, but radio was thriving and in 1930 the movie industry embraced optical sound for the first time. Movie sound was mono and of atrocious quality compared to the best radio broadcasts. The race was on between RCA in the United States and EMI in Britain to produce a stereo sound system of acceptable quality for the movie industry, the only sector with commercial motive and in a financial position to invest in such expensive technology. I suspect that Paul Sacher saw stereo movies as the way of the future and for that reason he invested in a small portfolio of new compositions to be made into concert movies that would not only show off the virtues of stereo, but also lend themselves to manufacture and distribution as concert items to quality movie houses all around the world. Echoes of such a concept appear in Stockhausen’s *Inori* and an unfinished sketch from 1967 called *Projektion* for live and prefilmed orchestras. The argument for a balanced symmetrical arrangement with percussion in the middle is that it makes perfect sense acoustically for recording and reproduction in the larger than life surroundings of a big-screen movie theatre. Unfortunately the Second World War intervened.

After the war in 1951 Stockhausen completed his Diploma in Music Education by presenting a thesis, and he chose to offer an extended analysis of Bartók's *Sonata for Two Pianos and Percussion*, at the time still reckoned a radically new and advanced work. What are interesting in relation to *Mantra* are his adoption now of features he earlier criticized in the older work, and how he came to exploit and extend the same principles of symmetry and mutual interaction moving into realms of pitched and unpitched percussion, which in the former work include timpani, triangles, xylophone, gong, and cymbals. A quasi-symmetrical configuration of keyboards and percussion also obtains for the instrumental version of Stockhausen’s earlier composition *Kontakte*, dating from 1960, with solo piano on the left facing keyboards
played by another soloist (marimba, vibraphone) on the right, and electronic sounds occupying the centre and swirling around the room. The instrumental texture of Kontakte by comparison with Mantra is fragmentary and highly pointillistic.

With Mantra Stockhausen changes direction from gestalt-based processes to embrace a formula aesthetic based on melody and melody transformation. Instead of the players having to listen and adjust to prerecorded tape, the mediating voice in Mantra is electronic modulation controlled by the players themselves in real time, creating layers of coloured resonance shimmering and dancing like auroras in the night sky, along with the occasional shooting star. Though Mantra is far from being movie music, it remains connected, imaginatively and technically, to a conception from the 1930s that is stereo- and movie-related, front-of-house music for a silent movie fantasy to which the real-life pianos are perceived as incidental accompaniment.

To the end of his life Stockhausen never lost his fascination for the idea of a musical dialogue between the transient world of the here and now and the timeless eternity of the musical cosmos of electromagnetic waves. In the first edition of the published score Stockhausen says that the four speakers should be placed behind the two pianos and out of sight behind curtains. To conceal the speakers from view is a device to make the modulated sounds appear out of nowhere like magic. It is no coincidence that at the time of Kontakte the Italian Luciano Berio, working out of Paris and his own electronic studio at Milan Radio, was composing Différences for chamber ensemble in which a chamber ensemble performs in front of a curtain behind which speakers are concealed, in order that the audience only gradually becomes aware that the natural sounds of the real players are being invaded and transformed by radioactive electronically altered sounds in various states of decay.

For New Zealanders, a first performance of Mantra in our remote corner of the South Pacific by Xenia Pestova and Pascal Meyer was a rare and special occasion made all the more poignant by the fact of Stockhausen's death in December 2007 and inert
official silence thereafter. Two years previously, on his 77\textsuperscript{th} birthday, I had sent the composer a message of greeting, written on the back of a National Library postcard of the HMS Sirius—a vessel that visited these waters in the years after Captain Cook, and was wrecked on Norfolk Island in 1790—along with an article from the \textit{NZ Listener} suggesting that this country would make a majestic setting for open-air performances of his compositions. For a visionary identified as an extra-terrestrial spirit of the star system of Sirius, his emailed response was gracious and a little melancholy. “New Zealand is a bit far for travelling”.

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