

Harpsichord & *fortepiano*

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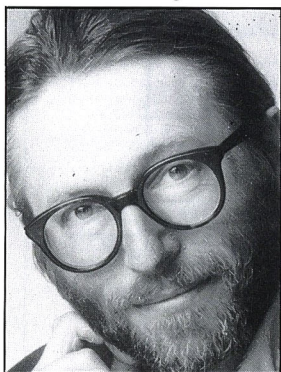
The Challenge of New Music

Jane Chapman writes about *Crosscurrents* by Mike Vaughan, for harpsichord and tape, and Simon Emmerson's *Points of Departure*, for harpsichord and live electronics: two works of which she gave the first performances and which she has since performed a number of times.

PLAYING any music on the harpsichord is a challenge, but in some ways learning or rather interpreting contemporary music is less frustrating than that of the past, as many of the composers are still alive and can be consulted! I have had numerous fantasies about going back in time and hearing Louis Couperin or some other great composer and performer in the flesh. How much ornamentation did he and his contemporaries use? What did it really sound like? A certain amount can be gleaned from letters and

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writings of the period, but these are often contradictory, and sometimes describe performance practices which were obviously common at the time, but which in some way offended the writer's own *bon goût*.



Simon Emmerson

Neither Mike Vaughan nor Simon Emmerson are harpsichordists themselves. In *Points of Departure*, however, Emmerson was creating a work that relies on a performance practice that is not foreign to the harpsichordist

brought up in the Baroque tradition. On the other hand, *Crosscurrents*, by Vaughan, requires the player to learn new techniques and to have a more confrontational attitude towards composition. Both composers have explored the potential of the instrument in their own way, extending the range and scope of the harpsichord, catching it in a new and lustrous light.

Simon Emmerson was very aware that writing for the harpsichord was not like writing for the piano. When trying the harpsichord in the music department at City University, where he is Senior Lecturer, he said that "feeling for a non-existent sustaining pedal was like a reflex action. . . . This lack of sustain causes enormous differences between piano and harpsichord writing, and the sound of the harpsichord has a much lighter mass."

Points of Departure

Points of Departure was stimulated by the sound of the instrument. The speed with which you can articulate notes is unique. The sound can be dry when you want it to be which means that it is possible to get clear electronic transformations. The ability for a sound to be dry with a powerful attack is very important when trying to fix things in space. A sound is located largely through its attack and it is much more difficult to locate continuous sound. Emmerson is particularly interested in how sound can be used in space—what he calls "throwing the sound around the hall". He says, "The sound from a harpsichord can be positioned very accurately, a single note which is maybe echoed can be heard very precisely when it moves between two loudspeakers. This can create a very strong gesture in music."

Emmerson wished to write a flowing piece, an idea he had been exploring in previous works. The flow of the piece was to be uneven—a flow that changes direction like a butterfly or an unpredictable river. He had an image of an insect flitting across the surface of an initially still pond, the harpsichord being treated slightly electronically so that it becomes a distorted reflection of itself. The insect disturbs the surface of the pond creating ripples which spread from the point of contact—the live electronics throw the sound around the space, reflecting and defracting its colours.

The tempo is free and the writing is built from scales and arpeggios reminiscent of a Baroque toccata or unmeasured prelude. The continuity is broken up with 'freezes' which have an important structural function. These develop from simple, resonant notes and chords, through clusters, then back to single notes again, now *tremolando* or repeated. They occur where the insect agitates the surface of the pond and are caught and transformed by the live electronics, rippling out across the hall.

RESearch for the piece worked on many different levels. Looking for the right sounds for the piece, the harpsichord sound was put through electronic processors (Alesis quadraverbs) which Emmerson used in such a way as to create, often intuitively, a sound-

world where different kinds of sustain were possible. These different processes were stored as so-called 'patches' and though there are already set patches on the processor, Emmerson worked with the settings on the devices until he came up with something original that he liked. These were methodically listed. (Example 1)

In parallel with this there is some rather more traditional work with harmonies and harmonic fields. Emmerson came up with a pitch scheme which moves between different pitch fields from which scales and arpeggios are derived. At the start of the piece the intervals are more widely spaced and by the end they have become condensed, creating much closer groups. (Example 2.) A vast amount was done by ear, and once a group of notes with a satisfying sonic quality had been chosen various things were altered, such as octave placement, resulting in a slow change in colour as the piece progresses.

To create the flowing unmeasured feel to the work, the Fibonacci number series was used: 1-1-2-3-5-8-13-21-34, etc. Each number is the sum of the previous two. This series determines the numbers of groups in the overall structure and the number of notes in each group. (Example 3.) The 'freezes' marked with a pause sign are outside the Fibonacci series and are there to create shape, punctuation and sustain at the end of each gesture.

NB! (-) = Not operative (= 'doesn't matter') in this program.

* if MOD is not used all 8 'Mod Amplitudes' should be set to +00!

Quadraverb I (Left)

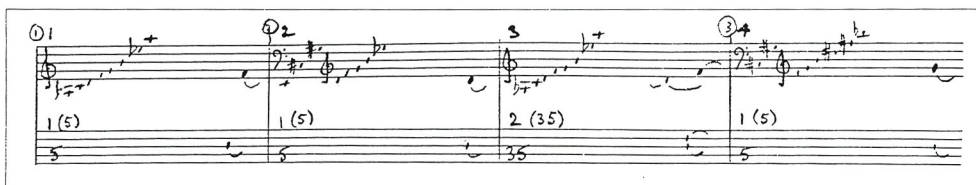
Program L1 'Longrev': Configuration 5: 3 BAND EQ>REVERB

MIX	EQ	PITCH	REVERB	MOD
Dir. sig. sel.: Pre	(-)	Rev. chorus: On	Type: Plt2	(-)*
Dir. sig. lvl: +00		LFO wvshp.: Tri	Rev. i/p : Pre	
Master fx lvl: +99		LFO speed: 20	Rev. pre-dly: 001	
Rev. o/p lvl: +99		LFO depth: 50	Pre-dly mix: 99>	
			Rev. decay: 99	
			Rev. diffn.: 9	
			Rev. dnsty: 9	
			Lo frq. dcy: -00	
			Hi frq. dcy: -00	
			Rev. gate: Off	
			Rev. gte.hld: (-)	
			Rev. gte.rel.: (-)	
			Rev. gtd.lvl: (-)	

Example 1: Quadraverb charts



Example 2: *Points of Departure*, pitch fields from the beginning and end of the piece

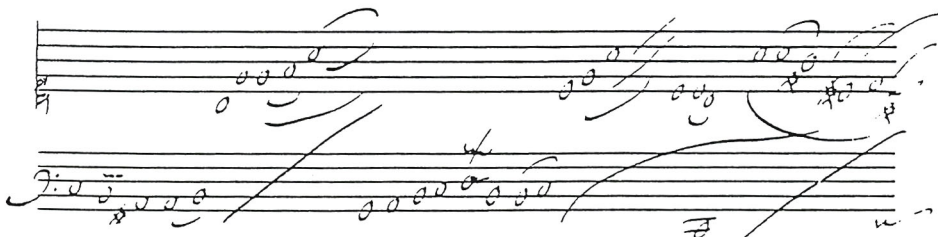


Example 3.

The Fibonacci series produces very free-flowing ratios: e.g., a typical passage may consist of a sudden change in direction for thirteen notes followed by a trill for exactly twenty-one and then a run of thirty-four. These numbers are not fitted into an obvious pulse: fifty-five notes do not have to be at the same tempo as thirty-four and the speed can fluctuate within each grouping according to the interpretation of the performer. To this I had to bring my knowledge of the unmeasured

Emmerson was looking for a suitable way to notate his piece and to indicate which notes were to be sustained he turned to Couperin for inspiration.

The rhythm of the music is not specified but the sustained notes are indicated using 'tenues'. Emmerson notes, "The length of the slur is intended to be an accurate representation of the duration of the note." Trills are written out as are broken chords or passing notes. When discussing interpretation the composer adds, "The figurations



Example 4: Couperin *Prélude non mesuré*

preludes by Louis Couperin and other French composers from the 17th century. When

may be 'pulled around' with emphasis on the first of the groups and flourishes as appropriate."

The piece is conceived very much for two performers. The electronics have two functions: one is local to the harpsichordist, creating the effect of weird reflections, and the other sends the ripples live, out over the audience. The sound from the harpsichord, which is slightly amplified, is put through two of the quadraverbs described above. One is used to create a slightly distorted 'unreal' sound which affects the colour of the harpsichord directly and is sent to a loudspeaker on stage next to the player—the player reflected in the pond. When the player reaches the 'freezes'—ruffles the surface of the pond—the live electronics performer captures a short segment of the sound and puts it into the second of the two quadraverbs. The transformed sound is then 'rippled out' over the audience. The machines are controlled by pedals which can change the programmes and processes in a flexible way. The score contains precise instructions for the quadraverbs: everything has been notated to create the required 'patches' which are programmed into the machines. The 'freezes' or pauses are clearly marked in the music and there are indications when to move on to the next programme.

eternity. On the other hand it is possible to stop the electronics; having their way and to cut through them, moving on to create the next spontaneous ripple.

The harpsichord is capable of enormous expression in its own right and it could be argued that its limitations force the player to create what amounts to a musical illusion through a sense of touch and style. Live electronics can help to enhance this process. The simple mechanical device which plucks the string is all that the performer has, and it is much easier to breathe life into a responsive instrument in a place with a good acoustic such as a small church. Performing the harpsichord with live electronics is like experiencing a change of musical consciousness: a trip; being taken over and turned into something else; pushing your way through a wall of sound; regaining your identity only to be transformed yet again—it is tremendously exciting and deliciously indulgent. In one way you are not wholly in control as so much depends on the other performer and the way in which you are captured and turned around.

Example 5: *Points of Departure*, Bars 66-69

I GRADUALLY became used to the idea of working with electronics which, as I was playing, transformed the direct sound of the harpsichord into something breathing, pulsating and exquisitely beautiful—even other-worldly—a sound that completely surrounds the audience because of the loudspeakers placed around the hall. Emmerson has notated the electronic sounds very clearly, but because of the free spirit and unmeasured feel of the piece a pause where most of the electronic action takes place can feel like an

For this piece to work, touch and articulation are as important as for Baroque repertoire. Emmerson is happy for the performer to choose some of the registration so that it is possible to play the piece on different harpsichords, though a buff stop and 4' create extra drama and also add another structuring point to the piece. Because the instrument is amplified, every sound made, both musically and mechanically, is more noticeable. Care and attention to detail are essential—it is impossible for the performer to hide!

Crosscurrents

PLAYING a piece for harpsichord and tape is a completely different experience from playing with live electronics. The tape cannot be spontaneous and react to or follow the player. The sounds on it are fixed and though a certain amount can be done by the sound projectionist in performance in terms of levels, balance and diffusing the sounds around the space most of the hard work has already been done in the tape-studio.

Mike Vaughan lectures at the University of Keele as well as pursuing his composing career. He writes of *Crosscurrents*, "It is intended that the overall level of amplification of the harpsichord is to be high throughout in order to allow both the detail of the instrumental writing and the percussive detail of the harpsichord to be heard at all times." The loudspeakers are arranged so that both the harpsichord and the tape sounds are diffused together at the front of the hall and that the tape alone is heard through an additional speaker sys-

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tem. This allows the audience really to hear everything in stereo and to catch different sounds moving between the speakers.

Crosscurrents uses the idea of a concerto as a model, with the tape providing expansions and extensions of the harpsichord material. Much of that material is extremely intricate and the piece is full of bold gestures which generate a high level of energy. An enormous commitment is demanded from the player just to keep ahead and in control: the work has to be sculpted into something comprehensible rather than be allowed to go untamed. In parts a tremendous battle is in progress—a wild, searing sound from the tape bursts in upon incredibly fast, angular lines in the harpsichord part, culminating in trills of different speeds, with several notes in each hand.

The tape part was created using sounds from several different sources. The main source was the harpsichord itself, the sounds of which were recorded and treated electronically in a number of ways so that they were transformed into something completely different, whilst still retaining

their intrinsic 'harpsichord' quality. Other sounds were purely electronic and were created using a synthesiser or MIDI system; others use the technique of *musique concrète*, employing 'natural' rather than 'musical' sounds as the starting point. The fusion of all of these creates a tape part which not only augments the solo harpsichord but throws out enormous contrasts so that the listener is constantly assailed from all angles.

Vaughan uses graphic indications in the score which show how the sounds on the tape fit with the harpsichord part, but these are only intended

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as cues. (Example 6.) The piece opens with a short tape introduction: a whispering and fluttering sound gradually becomes more intense and at a point where the sound level is hardly bearable it is interrupted by a block of fast, distorted repetitions out of which explode fragments of processed harpsichord sound, with an aura moving at a different speed, like fireworks slowly falling through the sky. The strange, powerful, aggressive 'harpsichord' fragments suddenly become very rhythmical and after a final short, sharp burst the harpsichord proper enters with a full and vibrant registration. The player has to wrench the sound out of the instrument using the entire range to create a wild and monstrous dance.

To create contrast and structure, very complex and dynamic sections for harpsichord and tape may be followed by solo passages. Some short, strong antiphonal exchanges occur with dramatic effect. (Example 7.) Vaughan also allows the player the freedom of having long solo sections to perform in his or her own time—the tape is stopped then cued in again at a later point—which allows the player to step back and escape from the tyrannical bullying of the tape.

AMPLIFYING the harpsichord in this context is a marvellous experience. It is important to have the microphones in the right place, usually several inches above the soundboard, and to ensure that the whole compass is equally amplified. My harpsichord, a copy of a Blanchet, has a rich bass which is picked up very easily. The section illustrated in Example 8 sounds unbelievable when amplified—like a hundred double basses or a menacing organ.

The diagram at the top shows a horizontal line with a circle labeled 'A' at the left end. A vertical bar with diagonal lines is positioned at 10". To its right is a black, teardrop-shaped area. Further right, at 15" and 17", are vertical lines with 'x' marks. Below the diagram is a musical score in 4/4 time. The tempo is marked 'Piu Mosso'. The score consists of two staves. The first staff has a circled 'I + II' with '8 + 4' below it. The second staff has a circled 'I' with '8 + 4' below it. The score includes various musical notations, including triplets and dynamic markings. A box at the bottom left contains the text 'PROCESSED HARPSICHORD FRAGMENTS ETC.' with an arrow pointing to the right.

Example 6: *Crosscurrents*, opening

The diagram at the top shows a horizontal line with a circle labeled 'A' at the left end. A vertical bar with diagonal lines is positioned at 10". To its right is a black, teardrop-shaped area. Further right, at 15" and 17", are vertical lines with 'x' marks. Below the diagram is a musical score in 4/4 time. The tempo is marked 'Piu Mosso'. The score consists of two staves. The first staff has a circled 'I + II' with '8 + 4' below it. The second staff has a circled 'I' with '8 + 4' below it. The score includes various musical notations, including triplets and dynamic markings. A box at the bottom left contains the text 'PROCESSED HARPSICHORD FRAGMENTS ETC.' with an arrow pointing to the right.

Example 7: *Crosscurrents*, antiphonal exchanges between harpsichord and tape

The diagram at the top shows a horizontal line with a circle labeled 'A' at the left end. A vertical bar with diagonal lines is positioned at 10". To its right is a black, teardrop-shaped area. Further right, at 15" and 17", are vertical lines with 'x' marks. Below the diagram is a musical score in 4/4 time. The tempo is marked 'Piu Mosso'. The score consists of two staves. The first staff has a circled 'I + II' with '8 + 4' below it. The second staff has a circled 'I' with '8 + 4' below it. The score includes various musical notations, including triplets and dynamic markings. A box at the bottom left contains the text 'PROCESSED HARPSICHORD PATTERNS' with an arrow pointing to the right.

Example 8: *Crosscurrents*, loud bass trills

Linking a tape and live performance always poses a problem, which composers solve in different ways. Some works require a stopwatch which starts at the beginning of the performance simultaneously with the tape, a cue having been given by the sound projectionist. If for instance the harpsichord part consists of a series of trills which have suddenly to coincide with a gesture on the tape, this method is invaluable. It is important however to have the stopwatch easily visible, so that the audience is not distracted by the performer's forever looking at the time! It is of course much better to get to know the tape part so well that you can predict when these important moments occur, but this rather depends on the kind of sounds on the tape, and their duration. Some pieces require the use of a 'click track': a beat like a soft metronome is fed through headphones to the performer and is synchronised with the tape so that both parts are exactly together as the composer intends. This is often used in fast, rhythmic pieces where it is impossible to keep together simply by ear. It is hard, however, to play freely and musically with a relentless click in your ear, and it can be a very alienating experience.

Given the complexity of the harpsichord writing, Vaughan accepts that each performance will be different with respect to the exact synchronisation. He has often deftly constructed a passage so that if the end of a section is reached before the appropriate time a long trill or pattern of notes may be repeated until the tape 'catches up'.

THE contradictions and arguments about performance, to which I referred at the start, help the early music world go round and provide endless material for contentious articles. There are many heated debates in the contemporary scene as well, which cover other important issues such as the accessibility of music and the 'artistic' compromises that should or should not

be made. At least by working closely with the composer it is possible to come somewhere near the mark and perform the piece as it is intended to be heard. As a performer of new music, the ultimate goal is to capture the imagination of the audience and—hopefully—leave them shouting for more.



Points of Departure by Simon Emmerson was commissioned by Jane Chapman with funds from South West Arts and was first performed at the Dartington Summer School in 1993. Crosscurrents by Mike Vaughan is dedicated to Jane and was commissioned by Nottingham New Music 1990 with funds provided by East Midland Arts. The scores are available from the British Music Information Centre (BMIC), 10 Stratford Place, London WIN 9AE.

Jane Chapman has performed widely as a harpsichordist in both Baroque and contemporary repertoire. Radio broadcasts include Music in Our Time, Midnight Oil and Mixing It. She has recently been heard playing both the Bach D minor concerto and Górecki's harpsichord concerto at the Bath Festival and she has recorded an electro-acoustic programme for Dutch Radio as part of a contemporary harpsichord festival at the Ijsbreker. Jane is currently guest editing an issue of Contemporary Music Review devoted to the harpsichord. The first CD in her three-volume series of 17th-century music from the Bauyn Manuscript has just been released by Collins Classics and is reviewed on page 36 of this magazine.

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