APPENDICES BOOKLET

An exploration of cross-genre composition focusing on the combination of natural and synthetic sound sources

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Appendix 1

Interview with Thom Kirkpatrick, live loop-artist under the name of 21st Century One Man Band. Interview conducted in person in January 2010.

Please can you list your exact setup and the sequence in which it is wired?

4 mixer channels (Yamaha) feeding one input of the Boss RC-50; Microkorg, vocal, guitar (acoustic), cajon. Stereo output of RC-50 to FOH with additional vocal and bass drum.

In relation to *The Fear*

http://www.youtube.com/watch?v=xKBT3IHPfrE

How does the loop pedal fit into this and how much flexibility does this allow?

I use the Boss RC-50 which has 3 loop phrases with an infinite amount of tracks available on each phrase. Tap when you start the phrase and tap when you finish the phrase, this sets the light for all 3 phrases. The Boss generates a very quiet hi-hat for reference tempo. There is an undo function for the last phrase recorded and you can delete entire phrases on the go. Live instruments are key as loops tend lose life aftertime, live instruments and vocals give the music life.

What is the structure loop-wise of *The Fear*?

	Recorded Loop	**Phrase 1**	**Phrase 2**	**Phrase 3**	**Bass Drum**
Song Section					
Intro					
Verse 1	8 bar synth loop to phrase 1				-
Verse 2		Synth 1			-
Chorus 1	Claps to phrase 2	Synth 1			-
			Claps		
Chorus 2	Synth Part to Phrase 2	Synth 1	Claps Synth 2		-
Verse 3	Synth bass to phrase 3 in second half	Synth 1	OFF		BD in second half

Chorus 3	(Continue recording bass synth to phrase 3)	Synth Loop	OFF	Synth bass (loop begins second half)	BD
Chorus 4			Claps Synth 2	Synth Bass	BD
Bridge	Acoustic Live	Synth 1	Claps Synth 2	OFF	BD
Verse 4	Acoustic Live	Synth 1	OFF	OFF	-
Chorus 5	Acoustic Live	Synth 1	OFF	OFF	BD
Chorus 6	Acoustic Live	Synth 1	Claps Synth 2	Synth Bass	BD
Outro				OFF	-
		OFF		OFF	-
			OFF (with pick being dropped)		-

What made you chose the hardware, over software, route?

I looked into a number of systems and Boss RC-50 seemed to offer the most functionality for what I wanted to do. Simpler than software, didn't want to be dragging around a laptop, and more reliable.

What skills are involved in live loop performance? Is it an art setting the loop length/tempo? Do you record to a click/tempo indicator or is the first loop free reign and then used as the guide for the following?

I do lots of songs without a click, and I've retrained my left foot to be the loop length trigger (right foot on the bass drum). You need to have a really good inner sense of tempo and time, although a wonky loop can sometimes sound more human, but requires more listening to lock in with. The click makes it far clearer and the equipment prefers, and works more efficiently when you program the timing. If you're slightly off it will snap to the nearest bar, so less room for error.

Can, and do you, use tempo based synchronisation to add time based effects to your loops – if so, how effectively, does this work?

I now have a delay unit (TC Electronics – you can type the tempo of the song into the unit or tap tempo) in the chain before the looper, with a tap tempo feature to make the source material more interesting, such as reverse delay….This means you have to be more accurate with your playing, and it also helps you to keep in time as you have the kicktap of the delay in the right rhythmic places, which also encourages you to listen more.

Do you find that the limitations of the equipment encourage or force you to plan/perform in a certain way?

Totally, for instance I wouldn't have put 2 choruses in the first part of The Fear but I wanted to put two parts down for that section of the song and I only have two hands so I had to play the chorus twice. I am looking into getting a drum machine, so I could play in the claps with my left hand and the synth with my right. Having 3 phrases makes me perform my songs with that in mind, theoretically if I had more phrases (i.e. using software) I would probably do it in the same as you can only do one or two things at the same time. The one I've just written I had a vocal loop in mind (two vocal parts), a two-chord thing, then I like to find how I can change the harmony of the loop without changing the loop itself (i.e. adding different chords and bass notes underneath).

How do you feel loop based performance fits into the context of today's music industry model? Will it also work as recorded music (i.e. do you still focus initially ultimately on the song as a linear work, or are the various loops in your mind from the beginning when you are writing)?

I write the song first and foremost and then find a way to perform, although in the back of my mind all the time I have a loop for the song.

Do you feel that combining technology with electronic performance has benefits that were previously not achievable? What do you consider these to be?

It enables me to get out and perform, and tour, very cheaply. It provides a much more unusual visual aspect to live performance that hasn't necessarily been seen until the last five years, and in turn, because they are watching in the first instance that makes them more likely to be interested in the long term performance of the band. I find the best reaction to my performance when I record my voice and vocal harmonies, people are most familiar with the human voice and know it can't sing three notes at once, whereas with synthesizers and even electric guitars people can believe that it's being done in real time, even if it's being looped.

You tend to work on your own for this project, what do you see the potential would be for working with other people in live loop based performance?

Great potential, at the moment I'm working on adding guest performers on certain tracks to come and layer up brass instruments and other things that I'm not able to do. I'll always approach it with the song first and build the arrangement around the song. You could write a four bar loop (but score as real time) and gradually layer the same phrase with the live performance to build up huge textures, whilst the song's being sung with a massive big brass section. In terms of adding live drums, mics are a problem with feedback and if you record drums and then loop them alongside live drums, they tend to resonate as the loop is the same frequencies as the loop being played back, which can result in a big, noisy boomy sound.

Appendix 2

How did/do you find the implementation of technology in performance, and how did/does it affect you (i.e. IEMs, wedges, following a click as opposed to a conductor)?

Depends enormously on the set-up. In film sessions, one is slave to the click and plays in a very artificial way - precisely with the click (and the picture of course), which is REALLY frustrating and leads to a rather tight way of playing. Feels unnatural and means all the passion and wildness gets cut out. However, the film world usually requires this kind of approach anyway as most film scores have been pitched with synthesized strings, so producers are used to a uniform slightly colourless sound.

Other situations when I've had click, if it's a single solo line with elctronics/ backing track, you can feel freer and play around the click a bit more. It takes a little practice as again, it doesn't allow for the "in the heat of the moment" so crucial to all musicians in live performance. However, my own music is mostly pre-recorded track plus live cello/voice. In this case, I have the advantage of knowing exactly how much I can bend things around what's written, so don't feel constrained. Brian's music is very beat driven, so a click is superfluous. Because it was a solo line, I was able to do what I wanted, within the parameters of the groove, so it felt quite natural.
Same goes for Colin Riley's stuff - have done quite a few pieces of his with backing track/live electronics. What's crucial every time is to have really efficient foldback. Sounds obvious, but you'd be amazed how problematic it can be. Have used headphones in quite a few situations when it's really loud - so can sort the mix of live sound and track.

Playing with live electronics doesn't present too many problems - although most i've played have been with an ensemble and therefore with a conductor. Problems can arise when the conductor alone has a click track and the players don't. It's very hard to follow the clicky beat, and if things drift a little, as they always do in live performance, it's very hard to get back in with the conductor. I've been in a couple of situations when the players have had to suddenly rush to catch up, which sounds crap, as you can imagine. So I would always advise everyone having click in this situation. If the rhythm is complex - ie not groove-driven, you may still need a conductor. Have had this situation a few times and it works well.

The same problem would arise if only one player has a click -- it would never work, so the standard set-up would be for all players having click/backing track mix in the cans. Always allow time to sort the mix by the way -- can take a while til everyone is happy. Single ear headphones are also a godsend for string players, as the standard head candy ones get in the way of the instrument! Most players like to work with one can off anyway.

Were/are you able to perform as you would in a typical performance environment?

Again, depends enormously on the music. With my own stuff I feel completely free. Very complex music which has to be synchronized with track requires different skills. An ability to be super accurate whilst able to create a spontaneous sound. A lot of this hangs on the right mix in foldback/ cans, enough rehearsal time with the track, competent conductor, players' experience in this situation. In groove based stuff it's pretty easy.

Do you feel the use of the pre-recorded tracks worked/works in the context of the live performance – did you still feel as if it was/is a "live" performance?

Again, depends on the piece. Some work, some don't, depending on the composer! E.g. I am currently playing huge seminal tape piece "Bhakti" with Sinfonietta. It's an integral part of the ensemble and can be treated almost like a performer in its own right. The conductor is playing with track in headphones (no click as it's very complex rhythmically and 50 minutes' long). Works beautifully. Yes - it feels absolutely like live performance to play with electronics. I love working this way with my own stuff as I can be autonomous as player/composer: create my own band but still play as I want to, if you see what I mean. Only cases where it doesn't are studio film sessions.

What would be your preferred method of working with pre-recorded backing tracks?

Yet again, depends on the music. I don't like playing to click, but in some cases it's essential to the music. E.g I did a long piece for the royal ballet by Dave Maric (fantastic composer) - quartet of instruments plus conductor, all to click. Drove us crazy in rehearsals, but was the only way to do it, and the result rocked. Have played loads of stuff with live electronics where I wasn't familiar with what the effects were, so couldn't react to them as I would to another performer. Can be rather frustrating. I would play differently if I could clearly hear the effect I was making with, say ring modulation, in that moment. That said, many composers have taken all this into consideration in the way they notate the piece and ask the musicians to perform, so you have to trust their judgment here, rather than be part of the creative process, which is how I personally like to work.

Appendix 3

<u>Interview with Jon Winn, Lighting Designer at National Theatre. Interview conducted in person in March 2010.</u>

Have you been involved in any productions in which lighting is directly sync'ed to a pre-recorded audio track (theatre, music…)?

No, lighting is seldom directly synced to a pre-recorded track, at least in my experience that is the case. The only environments that would happen may be in a museum, for instance if there was exhibit of a model dinosaur that moved when you pressed a button (with sound and light involved) the lighting would be triggered to start at the same time and run a set course over the track, rather than be directly synced to the sound or music.

There are examples of "sound to light" instruments, but this is normally used by your local Dave the DJ. In that case the lights each sense the vibration caused by loud sounds (typically the kick drum of a club beat) and so would change their colour or direction roughly in time with the music. You'd normally see that at weddings and discos in pubs rather than the more professional realms.

In the world of theatre, time is given to design and program lighting states and changes during production week long before the performances. Then, when the show is running a stage manager - normally the DSM will verbally command the lighting operator for each cue to "go". As you will know having done shows yourself, there are many variables in a live show, so human control over all the scenographic elements is more preferable than syncing one to another.

Live music - especially the big tours such as U2 and Michael Jackson would have all the states and changes designed and recorded long before the show in the theatrical way mentioned above. However in some circumstances such as festivals, the lighting is operated "on the fly". This means that there is a rig which is operated in a kind of 'make it up as you go along' way. For example, I worked on the tour of One Night Of Queen a while ago (they're a really good night out if you get to see them!)... anyway, for that we set up the rig with a combination of lighting effects and operated them live with no pre programming. In that case it was easy since we knew the songs so could operate the lighting appropriately to the rises, falls and crescendos of the music. It's also very fun and most operators enojoy it.

These are just a brush on the basic ways lighting can be controlled in relation to music. It's by no means exhaustive, but those are the basics.

How do you feel visuals through lighting can interact with music (and most particularly, live music) in a concert environment?

I often describe what lighting does for live music by comparing it to what a soundtrack does for a film. I feel that in a live music concert, the lighting and projections are a supportive element that helps to define the mood and atmosphere of the moment in the song. For instance, when a huge crescendo occurs the lighting may blind the audience with a flash of bright white light which can express and enhance

the energy of the moment in the song. Alternatively, the same would not be appropriate for Jim Croce singing a soft ballad, in which case a much more static state would be better - perhaps a simple spotlight and a starcloth behind him would help to create the right visual mood to complement the sound.

Looking at your question directly, "how" the lighting can interact? That is changing all the time. Technology really drives us to achieve more ambitious things with the visuals and allows us to do so much more than we could 10 years ago. Moving lights (motorized computerized ones that can change their direction and colour etc.. remotely) have been a huge influence and have allowed lighting designers a much more versatile palette to draw from. Most tours now use rigs of almost entirely moving lights with only a few generics, perhaps even to a ratio of 9:1. Into the future this is only going to develop more and that's the fun of it.

Always the fundamentals are there: colour, intensity, direction, movement etc. It's how the designer puts all of these (and other) elements together that makes or breaks them as a good LD.

I would recommend that you watch the video I've posted below. It's Pink Floyd's Comfortably Numb live. To be honest, it's one of the very best examples of lighting being used excellently in live music to fit the mood and enhance the experience for the audience. It's 9mins, but so worth a look as it kind of summarizes all of this.

http://www.youtube.com/watch?v=JWnapx502uQ

Appendix 4

Paraphrase of an interview with George Fenton, composer for David Attenborough's Blue Planet series. Interview in person on 1/12/09. Arranged by James Synge.

"I did the series, and when I finished….the orchestra asked me if I'd do a concert of the music with them…BBC records said that if I was going to do a concert of the music, then I should do it to the picture. I said that I could do certain things to the picture, but I couldn't do a whole evening because it was just cues and cues tend to…drift away. I said I'd have to re-cut the picture and re-make the music to make it fit.

It is tight and there are a lot of hit points...They run a digi-beta with the picture which is projected, and they then run a slave machine with a copy of the picture on it which has got timecode and streamers on. I have my music desk and just below the music desk I have that picture, so I can see the streamers, so it's very tight. A couple of times in the show we do also put people on click, but not the whole orchestra as it's just too expensive and tricky to lay it out when you get to a new hall, and some of the orchestras don't like it anyway. So we just have the keyboard player, guitar player, percussionists and the principal bass, a total of about…eight clicks, and I have one. I don't necessarily use the click all the time, everything is clicked if I want it to be, but you can't keep an orchestra with a click if only you are hearing it, it's almost impossible…I think you can put it out to selected people, but if you want it to be a complete ensemble immediately, everyone must have a click, or no-one have a click….

If you have something where the basses are playing over here, and the harp is over there, and there's no click and they've just got you, they'll use their eyes and ears to be together, so the basses are not only listening to the harp, but they're watching the harp and vice versa. If you've got only one group on a click (e.g. the basses and not the harp), then the distance between them, once it gets fast and one is playing to the music, and one to the click, there's no way it can be together because of the time lag between what they hear and what they see.

If you write a piece and you have a video artist, I think the emphasis is on the piece. With the *Blue Planet*, I think, the emphasis is definitely on the pictures. But the point of film music, anyway, is you're making people see with their ears, you're not trying to sell them the music necessarily, you're trying to sell them the image with the music, and if along the way they say "it was great to see the orchestra do that" then that's great. They need to realise that it's not about them playing, it's about the whole effect of them playing with whatever else it is...and more and more Classical musicians get this."