creativity

in arts, science and technology

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Creativity
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Guest Editor
Fredricka Reisman, PhD
Creativity in Arts, Science and Technology
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CHAPTER THIRTEEN

STAYING CREATIVE: CREATIVE TECHNIQUE, HABIT AND EXPERIENCE

CHRIS WILSON & MICHAEL BROWN

Abstract
This chapter focuses analysis on a practice-based research project exploring personal creativity in musical composition. Seeking simply to explore the process and experience of creative routines in a more focused way—most specifically through imposed constraints of discipline, productive time and working materials—the project developed in unexpected ways and the focused act of observation itself led to the development of unanticipated insights.

Initial assumptions being that: 1) The right balance of challenge/constraint and creative context can stimulate creative fluency and flow, and; 2) The wrong balance of challenge/constraint and creative context can inhibit creativity, the subtle variations of experience and the delicate structures involved in framing ‘creative balance’ in the composition process developed insights into the relationship between creative boundaries, activities, and creative identity.

Creative fluency and creative quality can, and routinely does, emerge from difficult and constrained creative conditions. This text presents a personal insight into the creative experience of working through a defined programme of compositional activity, deliberately designed to test and to challenge, and how the same parameters of creative activity can frame everything from the most positive and affirming of musical activity, to the most desperate and distressing. It is through both pain and pleasure that creative value can emerge.

Keywords: Creativity, routine, inhibition, discipline, productivity, flow

Introduction
"The arts are not a way to make a living. They are a very human way of making life more bearable. Practicing an art, no matter how well or badly, is a way to make your soul grow, for heaven's
sake. Sing in the shower. Dance to the radio. Tell stories. Write a poem to a friend, even a lousy poem. Do it as well as you possibly can. You will get an enormous reward. You will have created something."
— Kurt Vonnegut, A Man Without a Country.

This text situates a first-person narrative exploring a research project based on the composition of music. The focus of enquiry being creative experience through creative constraints, the practice-based research explores a defined period of creative musical activity and a structured programme of musical composition, publication, and creative reflection.

Originally conceived in quite focused terms, the initial project aims were simply to explore the process of artistic creativity through constraint and limitation—of time and other factors—to evaluate the extent to which the imposition of boundaries affect creative output productivity and quality. Relevant specifically to educational practice in the teaching and assessment of musical composition, the aim was to develop a better understanding of creative musical experience, a subject more often mythologized than considered logically (there is no actual magic involved, as much as creative musical thinking can be mysterious and often exceed the available speed of documentation), the practice-based and collaborative approach to the research nevertheless led both to greater personalisation and conceptual diversification in the thinking involved. The initial focus became a blur, but a blur requiring interpretation and description nonetheless.

Ultimately, this chapter is simply a reflective account of a period of creative activity undertaken within a series of self-imposed constraints. The aim throughout being to explore the process and experience of creativity under constraint, and to consider the nature of boundaries in creative activity through routine more generally, this text simply presents an insight into what it is to both flourish and struggle in creative practice and the relationship between boundaries and creative experience; an attempt simply to consider Bourdieu’s ‘Habitus’, the schemata of creative activity, and to explore the ‘rules of the game’ in the composition of music (Odena, 2012: p. 10) when challenged and inhibited. Rather than for the purposes of testing specific aspects of creative process or outcome through musical composition, this is merely a story of what was learned from such an experience.

Creative boundaries and constraints

“None are more hopelessly enslaved than those who falsely believe they are free.”
— Johann Wolfgang von Goethe, Elective Affinities.

In any discussion of creative limitations and constraints, it is important to clarify that creativity itself requires boundaries; limitation being an integral

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aspect of every act, product, and experience of creativity. Without a framework or established domain through which creative ideas can be communicated and decoded, ideas cannot be perceived, never mind evaluated in terms of creative significance. Such a framework requires elements of commonality or unoriginality and, ultimately, creative limitation, for there to be any visibility, or audibility of creative ideas. As discussed in a previous publication (Wilson & Brown, 2015), both complete freedom and complete inhibition arguably represent equivalent points of zero creative potential. Creativity is ultimately defined by the relationship between new and existing ideas but without transcendence of some form or another, creativity is simply not possible.

Nevertheless, there is a clear distinction to be made between positive boundaries related to creative frameworks and cultural contexts, and negative boundaries related to creative inhibition, perhaps the most pernicious and most common being limitation of creative time and opportunity. As is often the case with creative practitioners, an exclusive focus on personal creative practice is invariably challenged by the creeping demands of wider personal and professional life. Leading frequently to a gradual dilution of creative endeavour and reduction in time spent in focused creative practice, an unintended but nevertheless inevitable un-focusing of creative attention can follow. As musicians, composers and academics, the act of actively composing music, a process that for many accounts for tens of hours per week of activity during peak intensity, often becomes an occasional endeavour, a fringe activity, and a marginalised pursuit, as other activities take over. Evident in all those who recall in memory a distant creative practice of one form or another, occasionally, and often routinely, the boundaries of time and other factors can become insurmountable and lead to creative atrophy.

All creativity ultimately develops, flourishes, and decays. The inevitable cycle of life dictates that all creative potential (both productive and receptive) emerges naive, develops through opportunities for creative experience and expression, often missed, and ultimately declines and finally disappears. All sound ultimately dissipates and is absorbed by surrounding surfaces, transduced into mere momentary vibration and miniscule temperature elevation. All creative artefacts eventually subject to the ravages of erosion over time, all temporal acts ultimately lost in those very same sands. Nevertheless, it is through creativity that the prospect of immortality is presented in its most tantalizing form. It is only through acts of creativity that any form of ongoing impact beyond the boundaries of existence can be realized; it is only by passing on originality—either through the more immediate production of offspring, or the germinal impact of ideas—that any form of existence, beyond existence, is possible.

A sense of creative accountability as a composer of music simply implies the need to ensure that the best of ideas are captured and communicated. The ideas may be plentiful and readily accessible, but the dedication to capturing and sharing these ideas is easily eroded when the activity is not a primary professional activity. Seeking in part to address this problem in this project,
through active re-engagement with creative practice, boundaries were imposed both to test, and to protect creative activity.

**Creative Being: Drifting beyond boundaries**

Whilst the initial intention was simply to document the experience of creative activity and routine with defined limitations, other factors relevant to the understanding of creativity as a cognitive process and perceptual experience became apparent during the project. Consequently, this text presents a mixture of focused, first person narrative and empirical research data, in the form of tangible musical results, and consideration more generally of the wider implications of creative inhibition and the marginalization of artistic practice. From the initial question - *What happens if you impose limitations on creative activity?* - The wider questions of - *Why are there limitations on creative activity; Are creative inhibitors real, and; what are the implications of creative inhibition?* - are explored through consideration of creative self perception, self-actualization, creative transference, and musical production.

As is common in creative practice in the arts, and indeed fundamental to the definition of creativity itself, this research did not lead quite where it was anticipated to lead. Research became ‘messy’ but lead to positions of understanding nevertheless worthy of onward communication.

**Charting the creative project**

Whilst there are artists and creatives more generally who feel compelled to create, driven almost against their will to engage in creative practice, like most, I became and remain a composer because I have always loved the process and, having therefore devoted considerable time and attention to composing, become quite good at it. I started composing music with a particular focus from about the age of 12, and this became an activity that I was fortunate to devote my complete attention to at Music College. Indeed, for many years, composing music is almost all I did, often for days at end without any break when deeply engrossed in particular projects. Over time, compositional activity, peaking at approximately 40-60 hours per week for sustained periods during my undergraduate and postgraduate studies, gradually declined as wider professional responsibilities began to occupy increasing amounts of my attention. Initially becoming punctuated by other activities during the early stages of my teaching career, eventually productivity began to decline more rapidly and creative activities become more concentrated in bursts rather than ongoing and sustained practice. Twenty years ago, I would routinely generate over an hour of new musical ideas a month, currently sixty minutes of finished compositions represents a productive year.

Nevertheless, whilst the focus of this chapter is very much framed by a sense of having drifted away from regular compositional activity in the literal sense, the process of composition being very much a cerebral one, in actual fact the narrative is more one more of exploration of deliberate contact with
the documentation and onward communication of musical ideas. For me, composition has always been more a process of thinking than doing. Doing is merely the effort required to communicate musical ideas to others. I have always maintained the process of musical composition in my own thinking and in the very way I interpret the sounds I encounter in my environment. This project is not so much about creative being, as it is about being creative in the presence of others and for the benefit of others.

Like many composers, I compose music in a variety of ways and through a range of different mechanisms, from paper-based manuscript and written notes, to computer-based software and portable recording and editing devices. Mainly I carry and juggle fragments of ideas and find means of assembling these when the opportunity or the need arises. Focusing here on the use of laptop-based music recording and production software in sculptural approaches to composition and sound editing, software-based approaches also presented the most effective means of meeting the objectives of composing and publishing of results in tight timeframes. The ability to work using headphones whilst small children slept was also advantageous and unavoidable as an additional constraint.

A routine was established. My creative practice had become more structured around sporadic bursts of creative activity and it had been many years since a regular pattern of compositional activity was commonplace. Therefore, on Friday evenings at 9pm, a period of creative production would commence, progress, and culminate with the capturing of a recorded outcome for online publication. Whatever stage a musical idea had reached by a 11pm deadline, the result, or at least an outline of the ideas involved, would be published online. Whether the process was productive or disastrous, outcomes would be made audible and available. Most importantly, whatever the perceived pressure to devote the time to other activities, the process would be completed in a disciplined way.

This process was repeated over 12 consecutive weeks collectively representing cumulatively 24 hours of creative activity. Beyond basic rules regarding time, no specific musical objectives were established. The process of creative decision making, both within individual sessions of activity and between sessions of activity, was to be explored through the creative process.
Creative processes and outcomes

As outlined in Figure 1 above (and Figure 2 below), twelve consecutive weeks of creative activity produced twelve compositional ideas, of varying durations, related experiences of creative processes, and resulting quality of ideas. As with every creative project, in my experience, the beginning was marked by optimism, even excitement, as possibilities were considered. Accepting and even revelling in the naivety of the start of a creative project, particular satisfaction was evident simply for the fact that a certain sense of permission was evident for a return to creative routine. For the first time in many years musical composition would become a defined feature of my working practice. I felt like a composer and was somewhat taken aback at the significance of that experience. However, whatever was anticipated in terms of creative experience and productivity was to lead in unexpected directions and involve new creative experiences, including the most productive and fluent, and by far the most difficult and unpleasant ever encountered.

“Demos from fragments of time spent moving dials and clicking track pads. The aim is rediscover my process by forcing ideas.”

—Author description of project compositions: https://soundcloud.com/cj101-1/sets/own-things
Initially conceived as a linear study process, with obvious value in sequential discussion, subsequent reflection and analysis of the project has led to a different approach to the structuring of discussion and analysis. Whilst a certain iterative development of fluency and technique was evident, more significant in determining the productivity, quality, and experience of creative processes were other factors, and other experiences more notable. Creative quality was generally judged to be low in overall terms in terms of explicit analysis of the musical ideas produced. Nevertheless, given the constraints involved, primarily that of time, and the creative perspective of the possibilities of the overall ‘raw material’ produced during the course of project (outlined at the end of this section), the value of creative investment was judged to be high in overall terms. Insights were developed and musical ideas developed capable of acting as germinal starting points for future creative activity and further, unconstrained, development.

Rather than simply describe the creative arch of the project and discuss individual creative events in sequence (See Figure 2 above), the following reflective account of creative practice instead focuses analysis on different aspects of creative experience and outcomes. Whilst compositional duration is highlighted in Figure 1, in the context of compositional activity using computers, duration is a relatively arbitrary measure of creative output; it being perfectly possible to generate greater duration of musical time than time spent
developing, given suitable use of repeat editing and faster-than-real-time mixing and audio rendering. Considered more important in this analysis are:

- **Creative beginnings** (the initiation and outset of a creative process);
- **Creative flow and peak experience** (ease and reward of practice),
  and;
- **Creative inhibition, distress and ambivalence** (creative difficulty and creativity under duress).

### Creative beginnings

The beginning of this creative project, as with every creative project beyond a certain boundary of definition, clarity, parameter, or inevitability, in my experience, was joyous; the excitement of possibility presenting an almost panoramic sense of space and opportunity. Perhaps amplified by an underlying interest in returning to more focused composition activity, the perspective nevertheless mirrored both my own experience of creative practice and that reflected in the many biographies of composers, writers and artists outlining experience of the initiation of creative activity. It is at the outset that the possibilities are most great and most numerous, prospects so intriguing and uncertain, and creativity at its most unconstrained and open.

### Infinite Circles

_Infinite Circles_ was composed and produced towards the end of a short break from work and after a busy period of writing and international travel. The start of the creative project, and the prospect of the creative experience was wonderful, exhilarating even. Every possibility was available, every direction open, I was refreshed, unpressured, and I chose to play. The composi-
tional event occurred spontaneously and led directly to the development of this research project, and establishment of the basic parameters of the project introduced earlier in this text.

The process was a more recreational experience than a creative challenge. It being routine that I invest several hours work each evening on professional work (reading, writing, developing, communicating), the transference of focus and exclusivity of attention to pure musical creativity a return to familiar and well loved territory was relished, and approached with unconditional expectation of enjoyment, and a perception of zero overall risk. Nothing could go wrong. Even if it went wrong, it would only be correctable through future endeavour.

The creative process began inauspiciously. I simply reverted to what I considered at the time to be the most enjoyable possible creative approach. I opened a music production software application on my laptop, with my headphones on, and I started to explore ideas. At this stage working independently of the project parameters that were to be established subsequently, creative flow was immediate and enjoyable, any thought of constraint very far from mind. Working specifically for enjoyment rather than with perhaps what could be described as serious artistic intent, and seeking to make progress quickly so as to enrich the play, simple ideas were assembled quickly and with nothing but joyful experimentation and playfulness.

A simple software synthesizer patch (sound) was initially selected from a range of possible sound sources. Subsequently manipulated, reprogrammed, played with, and situated in specific sound environment through additional of signal processing techniques or ‘effects’, a short motif was captured, cycled in playback monitoring of the recorded musical ideas, and complementary musical elements added through an iterative process of musical thinking, listening, programming, and manipulation of software controls over all aspects of the developing sound environment. The capabilities of software-based music production lend themselves to constant playback of musical ideas and provide almost limitless control over sound characteristics and combinations. Consequently, at any given point, focus of interest or attention can be developed in fine detail with multiple parameters available for manipulation. Composing within a recording-based process provides opportunity to connect directly the musical idea with the musical end result, and procrastination over any given point of creative thinking or musical idea easily absorbed with tinkering with other aspects of the project.

The compositional process relaxed into patterns of activity established over decades of compositional work with computers and recording technology. Whilst the sophistication of the software and wider technologies may have changed over time, comfortable patterns of operation led to the gradual settling of musical ideas in terms of tempo, tonality, rhythm, and tonal characteristics of the sounds and sound environments. Percussive ideas were developed alongside bass elements and textural, harmonic, and melodic ideas.
added in parallel with back-and-forth attention to editing of controls over other aspects of sound and sound placement of established elements.

Stylistically, *Infinite Circles* developed into a form of electronica evoking aspects of musical style and form of previous creative work. Drawing almost entirely from a sound palette of vintage synthesizers, loop-based compositional approaches also reflect sample-based computer music styles and forms indicative of previous commercial work. The track reflects a playful reminiscence more than a meaningful creative attempt to push forward.

The moniker *Sono Ondo* was adopted on a whim, at the point of publication. Meaning ‘Sound Wave’ in Esperanto, the language translation was a side thought as I was working in parallel at that time with several overseas projects and research involving regular use of web-based language translation tools. Consequently, I stumbled across the idea of Esperanto and then played with word combinations until a pleasing result emerged. *Sono Ondo* was simply the result of exploring the translation results of numerous words and phrases seemingly relevant to the musical ideas, materials involved, and general poetic value. ‘Sound’ being the first thought for a word to translate, the translation result, ‘Sono’, was immediately selected and other accompanying words explored. ‘Ondo’ (Wave) was eventually identified as the second word. It balanced and developed a form of pleasing symmetry that felt comfortable.

The title was determined approximately half way through the creative process. Having adopted a compositional approach involving cycled and repeated patterns, and having focused concentration on the editing and performance of musical ideas in cycled patterns during the compositional process, the title was perceived as necessary, and is therefore a result of spontaneous selection. The cover image was adapted from a photograph taken at a haberdashery of a display of thread bobbins. The selection of title and the selection of image being integrated creative selection and ideation processes, both undoubtedly connected to the experience of cycles and loop points in the musical editing process.

In the case of *Infinite Circles*, the creative beginning of this project, the creative activity is acknowledged to have been ‘unconstrained’ and undertaken following a period of rest which may account principally for the perceived success both of developmental process and outcomes; the evaluative framework established after the results to a great extent. The composition was only published because it was deemed suitable to do so and the outcomes ultimately the result of a period of open play. Subsequent weeks were subject to different constraints leading to different experiences. Nearly all creative events led to creative insight, and transferable benefits. Subsequent weeks established the supplementary challenge of:

- Always beginning from ‘scratch’ (never returning to finish something from a previous week).
- Publishing with accompanying cover image.
Creative flow and peak experience

With respect to creative flow (Csikszentmihalyi, 2014) and peak experience (Csikszentmihalyi, 1995), reflecting on the completed series of compositional ideas, the relative complexity of individual compositions can be evaluated and, given the equal timeframes involved in compositional development, a basic calculation made as to the relative fluency of creative work (or basic productivity of ideation). However, as identified in previous discussion of the basic data about the compositional outcomes, duration itself is by no means a reliable indicator of compositional fluency in a computer-based music production process. Equally and more generally, duration is not a clear measure of creative intensity or the quantity of ideas in music composition more generally. John Cage’s organ version of his piece *As Slow as Possible* (ASLSP) originally composed in 1985 for example, has a concert performance duration of over 600 years, and the spiral cut groove at the end of side 2 of the original LP pressing of The Beatles’ *Sgt Pepper’s Lonely Hearts Club Band* renders the final moments an infinite loop, reliant only on power to supply the record player to last in perpetuity (or at least until the stylus wears down). A composer need only add the word ‘infinity’ to a repeat mark to lock musicians into a potentially lifelong commitment. Duration is easy, and a potentially unreliable objective indicator of creative effort. Using computer-based software, repetition of sound elements or the elongation of musical ideas, is a relatively simple process.

Equally, complexity, in and of itself, dependent on the processes involved with development, can also be a difficult factor to map to creative flow. Whilst the quantity of musical ideas may at first glance present an objective approach to the analysis of productivity, compositional simplicity can masque extraordinary effort and render hidden abandoned alternatives and prior iterations, whilst complexity can emerge from simple creative steps and can only be determined according to the musical schema concerned. John Williams’ final selection for the five note musical phrase synonymous with the Spielberg film *Close Encounters of the Third Kind* (1977) for example, was selected from dozens of alternatives before eventually being selected and defining the film. The experimental and avant-garde in music may often be attributed with the characteristics of complexity, where only random or unconstrained creative processes were involved. Ultimately, any judgement of creative fluency and flow must take into account the experience of and thinking behind creative processes to frame more accurate analysis of creative activities and products.

Whilst of course not fully content with the published results from a creative editorial perspective of any of the twelve creative ‘events’ developed in this project, some nevertheless reflect more intuitive and more productive creative experiences. On some occasions, unexpectedly, and in different creative contexts, musical ideas came together quickly and satisfyingly. In some cases approaching peak experience, where all attention collapsed into a pro-
ductive and seemingly effortless sequence of thinking and doing, on many occasions, creative flow was more evident and experienced at the time.

When the next step, the next idea, comes quickly in composing, as with creative practice in other domains, there is no clear way of describing precisely why fluency emerges, what may account for this, or indeed precisely how this experienced beyond vague descriptions of calmness, contentment, and general satisfaction. Nevertheless, the resulting composition presents a unique opportunity for reflection and consideration of creative processes, themselves both mapped and interwoven with the resulting sounds. It may be intriguing to note, for those perhaps unfamiliar with creative arts practice, that the experience of creativity and the processes involved in creative practice are commonly recallable in vivid detail. Compositions produced over three decades ago remain recollections of considerable precision and clarity. Such is the focus and the attention associated with musical composition, the process involving every aspect of self; the act as well as the documentation of musical composition produces a recording, both often in high definition.

Descent

[Image]

Descent was perhaps the composition developed most calmly and serenely of all twelve. Unlike the gentle excitement of the previous, inaugural week, where creative activity was started spontaneously and directed primarily for the purposes of musical recreation, this was the first occasion under which the constraints of time, imposition of title and identity, and wider publication would apply.

No preconceived musical ideas were taken into the creative activity but the musical ideas developed from an almost immediate fixation and focus on slow. Recalling the recent and more generally recalled experience of landing in a plane, a brief pause in creative musical activity led to the development of the resulting cover image and title; itself taken of the side of an airplane seat on a recent European flight. The creative process subsequently reflected the
personal experience of landing in a plane in terms of the mixed emotional experience of relief and anxiety. Almost certain in the knowledge that you will safely be grounded in a short period time as the clouds drift past the windows, there remains the equal certainty that the point at which the plane returns to the ground is by far the most dangerous aspect of air travel with potential to deliver terminal perceptual experience.

The initial focus on slow speed progressed through the composition. Perhaps because of the recollected stillness experienced in the cabin of the aircraft, and a personal tendency to close my eyes and to be listening to music at the point of landing, as well as determining Descent as being conceptually linked with the experience of landing in a plane, a focus on development of music I would like to listen to in that context also emerged as a consideration. Brian Eno’s Ambiant 1: Music for Airports (1978) providing perhaps the most notable aviation-related musical soundscape designed to enrich airport environments, this creative process developed the simple notion of assembling sounds that would nullify practical anxiety and enrich positive experience in flight. Perhaps quite literally connected to the experienced desire for ‘slow’ arrivals by plane, rather than sudden and terminal impact, a basic conceptual idea found a personal resonance, a context for deeper emotional reflection and consideration.

The composition and development of Descent, punctuated, less than thirty minutes into the two-hour creative time-frame by the development of the cover image and title, is unremarkable except to note that the establishment of the conceptual framework represented immediate creative reassurance. Simple, calm, and slow sound environments are what I always prefer to listen to when landing in a plane, therefore development of textures rather than notes represented an immediate sense of reduction in the technical demands of the creative process. Developing a series of synthesiser motifs and incorporating edited fragments of previously recorded piano improvisation, the creative process is characterised simply by the application, in part, of the recalled perception of forced calm involved in the experience of air travel, and informed by the immediacy of production requirements. Ideas had to be documented quickly to exaggerate the stillness of the sounds.

Two hours is not a long time. To be creative is by definition a spontaneous process but to coordinate the simultaneous development, capture and publication of new musical ideas in a confined timeframe is a complex task. The juxtaposition of urgency and conceptual ‘slowness’ framed a particularly productive and flow-like creative experience. There was in perfect symbiosis, a reassuring sense of parallel urgency and infinity. I even considered cheating and extending the boundaries beyond the two-hour timeframe when faced with the enthusiasm induced by germinal ideas, infinite latent possibilities emerging for subtlety and the development of quality, yet as the clock ticked down I could not resist the project boundaries, established on days earlier. The tension between creative constraint and creative ideas was tested immediately. The composition was published as planned. But begrudgingly. Highly
incomplete work that flowed extremely well had emerged and been communicated yet I was not ready to let go.

**Fold**

Creative activity in the third week, whilst framed by the project parameters and developed through now more defined constraints of time (the preceding week with *Descent* almost the precedent for discipline with creative time), was nevertheless essentially subject to the benefits of the same conditions supporting the development of *Infinite Circles* and *Descent*; namely that of a preceding period of rest. This was true to such an extent that the enthusiasm to repeat the experiential success of the initial compositional events was such that the wider research project was conceived and the parameters devised; the imposition of which only made the prospect of the third week’s creative event more enticing. Having established precedent for creative fluency and immediate publication of ‘complete’ musical ideas—cohesive and balanced musical compositions—the attempt to reproduce peak experience, and to mandate equivalent levels of productivity through an almost performance management approach, made the third week of the project perhaps the most exciting of all. Actual and perceived risk remained extremely low. Potential for creative fulfilment was extremely high.

Stylistically taking queues from *Infinite Circles*, and indeed very much seeking to extend compositionally from that point, the creative approach was much more strategic and focused on the 2-hour timeframe. I had of course cheated and not only edited the cover image and predetermined the title, but also developed a number of basic musical ideas in the time leading up to the compositional event. Intrigued by the constraints rather than inhibited by them, the creative process became more a technical exercise than a period of play, treated more as an assignment brief or professional commission.
Working initially to establish the basic sound elements and to ‘set up’ the virtual recording and production software environment, individual instrument patches and sound sources were selected quickly and basic parameters such as tempo and signal processing (sound compression, reverb) established. The compositional process was unremarkable suffice to say that the peak experience in this case was very much defined by an emphasis on effortlessness and intuitiveness. I had some basic musical ideas. I thought ahead about realising these. It all worked perfectly.

Centre


Perhaps the most significant aspect of the composition, recording and production of Centre is the speed with which it was conceived and subsequently published. The track represents the most productive period of composition in the entire project from the perspective of production time and quality of results. Having tried and failed to develop a particular musical idea for over an hour of the defined two-hour creative timeframe on the date concerned, losses were cut and the creative activity was momentarily abandoned. Almost immediately, a sense of commitment to the publication of creative results led to the rapid assembly of a series of sound elements incorporating sounds of the Yorkshire coastline and the church bells of my hometown amongst a series of textural synthesiser parts.

The published results are the outcome of approximately forty minutes work. The underlying sonic ideas have merit, but have scope for much further development. Nevertheless, the ideas came quickly and the solutions emerged rapidly. Recognising that creative practice can drift towards procrastination and indulgence, often with profoundly valuable results, the imposition of strict time restrictions certainly focuses the mind and can induce effective productive responses.
Unknown Mechanism

Unknown Mechanism whilst far from a complete musical idea, is nevertheless that which developed most intuitively and most productively of all weekly bursts of creative activity. It is one of several individual ideas for which there are plans to return for further development and completion. Fulfilment emerged despite a lack of expectation or positive anticipation, or preparatory thought. On this occasion, the project provided license to turn to musical activity despite pressure of time that would otherwise have inevitably led to catch-up or get-ahead activity on other projects. I was allowed to compose and consequently relaxed into the inevitably of this far from reluctantly and actively appreciated the project parameters as supporting my personal well being.

With respect to creative productivity, having identified the limits by which duration and musical complexity can be used to determine creative flow, Unknown Mechanism was perhaps second only to the first creative experience with Infinite Circles in terms of creative enthusiasm in the developmental process. As the fifth week of activity however, Unknown Mechanism emerged in the context of an extremely busy period activity in other areas. Consequently, this track represents one of the more unique creative experiences in this project. Without deconstructing the creative process in detail, suffice to say that not only did ideas emerge positively (from a creative perspective), the results present an example of rare creative experience, when the results exceed expectations, surprise, and stimulate a rising curve of creative application. When initial creative expectations are neutral rather than low, if the initial ideas lead to a positive feedback loop of recognition and enjoyment (appreciation of results), the creative process can gain traction and lead to increasing engagement and application.

Unknown Mechanism emerged better than anticipated because the creative process went better than expected. The creative process drew me in, almost seduced me into progressively switching off other cognitive processes
and mental attention to other things. Whilst the very beginning of the creative process was marked by a level of ambivalence, the peak of creative experience was amongst the most focused and invested. Quite simply, this is one of the creative artefacts with which I remain most satisfied, partly because of the experience of that ramping up of interest, but also because the perceived qualities, and potential for further development, of the resulting ideas, is judged to be high.

FRy2e


FRy2e mirrored the creative experience of Unknown Mechanism quite closely. Albeit significantly less complex compositionally, the flow in this creative process was more associated with recording and production fluency. The sound qualities of assembled elements were engaging during the creative process to the extent that the limitations of time became reconciled by the perspective that this was very much the sketching of a plan rather than the completion of an idea. As with Unknown Mechanism, ideas emerged quickly and in a way that engaged creative interest.

Whilst there is a degree of separation between Unknown Mechanism (Week 5) and FRy2e (Week 11), the recollection of the former creative experience of the first undoubtedly informed the approach taken to the latter. In the case of FRy2e though, it was the production qualities that were quickly identified as the primary strength. Consequently, a focus on the development of musical ideas was transferred from notes to sound characteristics.
Bl1p

https://soundcloud.com/cj101-1/bl1p

Bl1p was another example of creative processes exceeding expectation from an un-predetermined starting point. As with a number of other creative experiences, creative process was enjoyable precisely because the documentation of ideas stimulated ideas and engagement. As with a number of others, this musical sketch is one that will be returned to for further development and completion.

B1onk1

B1onk1 was the outcome of the last of the series of twelve creative exercises. It is not how the creative project was envisaged to conclude. Thinking ahead, ideas including the recombination and exploration of sound elements and musical ideas developed in the wider project, tangential move to incorporate alternative creative approaches (it occurred to me to record only an improvised musical counterpoint to a live playback of the previous eleven com-
positions, amongst many other ideas), and a sense that previous patterns should repeated consistently, all featured in thinking. Consequently, creative thinking was at its most cluttered of any point during the project. A balanced counterpoint to the openness and freedom represented by opening weeks, the sense of wrapping up and closing down became stifling. Leaving to one side discussion of aborted attempts to explore some of the clutter, confusion led to the need for another shortcut creative approach. It went wrong and quick solutions were sought. Fragments of an improvised piano performance were edited quickly and framed for publication. Very quickly, and not unsuccessfully.

**Creative difficulty, distress, and ambivalence**

Whilst constraint was at the heart of the project process framework, established reasonably after a successful two-hour period of creative activity in the opening weeks, the perceived risk of the process from an experiential perspective was initially confined to the potential for the dulling of enthusiasm or energy dependent on the wider personal and professional pressures at play at any given time. Failure and uncertainty being a routine aspect of the majority of creative activities—the experience of perfect flow in creative practice more myth than reality—the level to which periods of low creative productivity or difficulty could become problematic was judged to be low. This was an inaccurate judgement.

Recognising that all creative activity is framed by some form of constraint, however invisible this may feel during peak creative flow, without schema or parameter, creative activity is ultimately rendered mute and made invisible. Whilst creative uncertainty and dissatisfaction is a routine experience of all creative activity, there rarely being creative experiences that flow unimpeded by any one of multiple inhibitory factors, there are occasions where the boundaries collapse in on themselves and become insurmountable. Normally, this would simply lead to abandonment of activity and a return only when ready and prepared to. However, the pressure of a sense of commitment to deadline, no matter what, led to remarkable creative insight. I found that a sense of discipline came very close, if not actually stepped neatly over, what had always been an invisible and unconscious process of creative self-protection.

Whilst I have always sought to embrace creative risk and experimentation, even creative difficulty, I have always managed to manoeuvre myself away from situations of creative harm. I have experienced creative difficulty the developed through practice, but I had never faced inevitable creative struggle square in the face before. I not only knew ahead of time that the process would be unpleasant, the thought of potential for infliction of permanent creative damage was even considered. There was trepidation as well as profound reluctance.
Having anticipated and experienced enjoyment from every aspect of preceding creative events, what came as a surprise in the creative process and the research project, was the response to, and experience of, forced creativity. On one evening, the scheduled project activity was undertaken and experienced as the single most unpleasant compositional activity I have ever experienced. On a number of occasions the prospect of having to compose, produce and publish musical ideas under time-constrained conditions was less than welcomed, but on one particular occasion, this ambivalence was so acute as to lead to an almost creative crisis.

It had been so long since I ‘had to’ produce new musical material, having reached the point of creative activity desiring distraction or unconsciousness more than distracting effort as a means of treating a highly pressured and fatigued mind, my first thought that evening was to defer the creative activity (recalibration of project activity could be undertaken subsequently, and the deferral of potential significance in the overall study), yet I could not shake the focus on the underlying keyword in this work; constraint. I realised that I could not recall, never mind imagine, a frame of mind less disposed to the generation of new musical ideas. My ability, at the point of commitment to the process, to appreciate creative value, never mind to generate musical thinking, was ground to dust. I had worked through an extraordinarily difficult week, was suffering in terms of health, and was in the midst of considerable professional pressures both for my time and for my attention. Focusing my attention to the process of composing music at the point at which this was very much required, felt very much like interrupting a heart surgeon at an extremely delicate moment in order to tell her a joke.

Ephemera was an unpleasant creative experience. In fact it was probably the most unpleasant creative experience I have ever had. I’ve experienced disappointing and unproductive periods of compositional activity many times
before, and faced creative blocks when ideas seemed to evaporate for periods of time, but I have never composed music so unwillingly or ever faced the situation where I felt compelled to do so before. As such this was amongst the most unique creative experiences of this project and perhaps the most unanticipated. To have spent two hours of my life doing the very last thing in the world I wished to do despite having complete control over the decision reveals either a dedication to an art, a commitment to a research project, or abject disregard for personal well being.

The preceding working week leading up to the creative event could not have been more perfectly designed to inhibit creative thinking and energy at the designated time of creative work. From disrupted travel, physical illness, to wider professional challenges focusing both thinking and attention on other issues, and compromising energy, time, and general capacity on every possible level, accompanied by the onset of winter, near peak limitation of daytime sunlight hours, the wider context of creative activity could not have been more challenging. I simply didn’t want to do it. More than that, I recognized ahead of engagement that the process would not only be unpleasant, it would inevitably make a difficult situation worse. It was only that point that point that I realized I had never composer music under those conditions before.

With the additional commitment to the research project, I decided to engage with the process. I had the weekend to recover if creative damage was done. The process was creatively painful and revealing of entirely new creative experiences. Different from simply being forced to compose music, the self directed nature of the negative experience was akin to a painful yet self inflicted itch that could not quite be reached to scratch, or a tantalizing threat of a sneeze that does not realize that was self induced. All the while wanting to escape, to run away, do something else, I nevertheless stuck to the project parameters and attempted to get through the process as quickly as possible.

The creative process involved every shortcut of which I am familiar. Selecting generic sound sets and synthesizer settings, I simply wanted to capture the simplest possible patterns and structures and to turn away. To accomplish this, the stylistic parameters were simplified, generic percussive patterns selected, and formulaic harmonic progressions developed. Nevertheless, the process remained arduous and unpleasant throughout. With seemingly no receptor of appreciation sparking on any level whatsoever, the whole creative process felt akin to practising taxidermy as a vegan. I felt allergic to musical creativity.

I consider the results awful and these as representative of a deeply unpleasant creative experience. They are nevertheless presented as a unique insight into what the experience of unpleasant creativity like this sounds like. I tried to do the best as I could despite the experience. I selected an optimistic and hedonistic musical form, I selected and modelled patterns and conventions, but floundered in a resentful way throughout.
Whilst *Ephemera* was a notably unpleasant and unusual creative experience, a certain degree of difficulty or distress or duress was routine in the majority of creative events. Indeed, as has already been highlighted, no creative process develops without uncertainty and no creative success achieved without some transcendence of boundary.

*BLahblahblah* is an example of a track where the image was developed ahead of the musical creation process and creative anticipation was quite high. I had an almost complete musical idea worked out that resonated pleas-
ingly, for me, with the predetermined title and cover image. The distress in this case corresponds directly with difficulty in realising established musical ideas. I could hear how it should sound and feel, and I simply could not real-
ise this through the compositional process.

Chalking this up very early in the creative process as ‘just one of those
days’, everything from technical problems to distractions in the working envi-
ronment seemed to occupy the foreground of attention almost immediately
upon attempted creative focus. The selected sound environment is not quite
right, the rhythmic feel does not quite ‘sit’, the production balance is poor,
and whilst wrestling with these dilemmas, other developmental ideas were
either lost or not forthcoming as attention was increasingly drawn towards
‘correction’ rather than extension. Within the first few minutes of the creative
process, corrections began to be made. This got worse.
Cr33p

Cr33p, whilst judged to be a relatively successful outcome, was nevertheless challenging in development. Confined particularly to certain compositional and production elements, difficulties were encountered realising ideas precisely and effectively. These became distracting and counterproductive distractions almost immediately. The focus became problems and ‘not-quite-right’ more than opportunities and ‘what next’. It is the composition that drifted furthest from the imagined ideal. I simply could not make it sound as I wanted, or translate ideas effectively with the materials available.

B33p

B33p is simply a prime example of laziness in creative practice. It was not an unpleasant creative experience as much as an ambivalent one. I simply went through the motions and it sounds like it. I got lazy and in this case, laziness led to creative sloppiness.
Creative reflection and evaluation

“It is not the critic who counts; not the man who points out how the strong man stumbles, or where the doer of deeds could have done them better. The credit belongs to the man who is actually in the area, whose face is marred by dust and sweat and blood; who strives valiantly; who errs, who comes short again and again, because there is no effort without error and shortcoming; but who does actually strive to do the deeds; who knows great enthusiasms, the great devotions; who spends himself in a worthy cause; who at the best knows in the end the triumph of high achievement, and who at the worst, if he fails, at least fails whilst daring greatly, so that his place shall never be with those colds and timid souls who neither know victory nor defeat.”

Analysis of creativity under constraint has an immediate a natural home in music. By almost every definition, the success or failure of musical ideas rests with establishing an appropriate balance between convention and innovation, between predetermination and inauguration. Music, as Merker identifies, is ultimately able to generate “infinite pattern diversity by finite means” (in Deliège & Wiggins, 2006, p. 31), and represents a dichotomous cultural space where creative ideas are constantly renegotiated on the wave front of known and unknown, familiar and unfamiliar.

Music is a significant example of the simultaneously constrained and unconstrained activity, with a constant push and pull, back-and-forth, between a stretch to new territory and a snap back to familiar ground, both within individual practice, and correspondingly with wider cultural systems. Indeed, citing Belker (2002), Merker (in Deliège & Wiggins, 2006), identifies that if novelty itself was a predominant factor in determining the quality of musical ideas, it would be difficult to account for the value gained from returning to familiar and previously known musical ideas (p. 25). Yet it remains the pioneers and the innovators who become most prized and most celebrated.

The creative peaks and troughs of the twelve creative sessions involved in this project were more pronounced than had been originally anticipated. And, as with all creativity, it is the unanticipated and surprising that often provides the most focused and fertile ground for interest and analysis. The most fluent and productive creative activity exceeded expectations, and led to significant periods of creative fluency and flow, whilst preconceptions and understandings of the baseline of creative experience and output quality was given cause for significant re-evaluation; the most negative creative experience being unlike anything ever experienced. Originally intending to focus more analytically on the musical products of creative activity, it was the experience of creative process that became the more significant factor in this
The act of musical composition providing a forensic opportunity to evaluate wider constraint factors inhibiting creativity and creative experience.

As observed by Carson (et al, 2003), focusing on the relationship between latent inhibition—the ability to “screen from conscious awareness” unwanted stimuli—and creative achievement, whilst it is tempting to consider how an exaggerated focus of attention might inhibit creative thinking, reducing the opportunity for new conceptual connections to be established, evidence from studies nevertheless indicate that low levels of latent inhibition generally correlate with high levels of creative achievement. Highlighting a distinction between different conceptions of inhibition through ‘effective inhibition’, ‘disinhibition’, and ‘adaptive engagement with inhibition’ (Benedek et al, 2012), all forms of inhibitive experience were experienced fully during the course of this project.

Creativity and play

Human beings being notable for continuation of play into adulthood more than any other species (Nowell, 2016), this capacity is perhaps most straightforwardly explained by the copresence of cognitive and practical opportunities for play. We not only have the intellectual capacity for play, we encounter more regular and sustained periods of opportunity for imagination to wander free from other distraction. This freedom leads to creativity. As soon as cognitive space is made available, possibilities emerge. Most are momentary, fragmentary, and ultimately lost, but many find ways of being captured, or become transferred over time into definable domains. Play and playfulness is the first expression and basic definition of creativity. It is the capacity to wonder in practical and transferable ways, and the ability to capture and apply insight, that defines our species and accounts for all of human progress.

The initiation of this project being driven by a simple desire to play creatively and to document this process, the aims broadly focused on exploring the creative process of musical composition and the experience and impact of imposed constraints. Developing into a more focused exploration of the relationship between compositional process and outcome limited by time and consistency of creative space and resources, the wider circumstances influencing creative activity, whatever the attempts made to shield these from overtly influencing the creative activity, inevitably crept in providing both the most destructive and most valuable influence. Seeking to play from the outset, it is the capacity for, and receptiveness to, play, that can be most inhibited by subtle factors beyond tools, space and time.

The connection between creativity and play is widely documented and almost intuitively understood; it is how we become who we are. From Lieberman (1977), who stresses the close connection between creativity and play, Bateson and Martin (2013) cite examples from Nobel Prize winning scientific researchers (Fleming, Delbruck, Feynman), artists and musicians (Escher,
Picasso, Mozart), who have identified quite explicit association with play their work. Even, in the case of Richard Feynman, a clearly documented lament at the lost memory of science as a purely whimsical and interest led pursuit as he reflected on the loss of enjoyment from his work (1985, in Bateson and Martin, 2013, p. 58), echoing factors involved in the inception of this project.

Highlighting how many of the facets of play—a willingness to improvise, to break the rules, an openness to novelty—are integral to the very definition of creativity, Bateson and Martin (2013) identify ‘play’ according to the following criteria:

- “the behaviour is spontaneous and rewarding to the individual
- it is intrinsically motivated and its performance is a goal in itself
- the behaviour occurs in a protected context when the player is neither ill nor stressed
- the behaviour is incomplete or exaggerated relative to non-playful behaviour in adults
- it is performed repeatedly” (p. 2)

Given that only the first of the twelve creative events in the project documented here conform to the majority of these criterion, and a number align with none other than that referring to repetition, the presence of play was at best fragmentary and at least compromised for the majority of this study. This may well account for the entire collapse of creative motivation and fluency on occasions. The repetition and routine itself providing both a space for sanctuary and cause itself of inhibition and almost traumatic experience when creative activity was mandated at acutely unreceptive points.

Creativity, whether defined using Guilford’s framework of convergence and divergence (1952) or Torrance’s (1972) extended focus on fluency, flexibility, and originality (Bateson and Martin, 2013), nevertheless represents the application of imagination in the development of definable or determinable outcomes, and was, ultimately, realised on each occasion of compositional activity in these terms. Nevertheless, the compositions characterised by highest levels of creative flow and peak experience corresponded directly and routinely to those experienced most playfully, and the less playful the activity, the lower the perceived quality of musical results in general terms as well as creative experience.

**Working creativity**

“Choose a job you love, and you will never have to work a day in your life.”

—Confucius

Citing Stokes, Paul and Kaufman (2014) identify “cognitive playfulness and cognitive workfulness” (p. 171) as prerequisites for successful and pur-
poseful creative endeavour. All creative activity being constrained at least by some framework of convention in order to be realised and recognised—compromise being necessary to conform with some level of predetermined expectations—the pressure of constraint and boundary contributed to the development of creative insight in this project, reflecting the freedom/constraint paradox recognised more widely (Rosso, 2014). Whilst it can be tempting to associate creativity particularly in the arts with unstructured and free activity, the imposition of boundaries and more concrete objectives can aid creativity. Indeed, as observed by Biskjaer & Halskov (2013), ‘decisive constraints’ can themselves lead directly to innovation.

The ‘workfulness’, the discipline and conformity, the limits and boundaries, provide both for the perfect conditions for creative insight, and a challenging environment for a sense of play. Nevertheless, the desire to transcend the constraints of boring or even negative constraints (to break free) can be a powerful, and the creativity of subversive behaviour can be reward in and of itself. Focusing on the intrinsic rewards and experience of different forms of activity, Csikszentmihalyi (2014) highlights the direct connection between creativity and play in the development of creative ‘flow’ (p. 135). Play being the exercise and application of imagination, and imagination being simply the ability to “mentally transcend time, place, and/or circumstance” (Taylor, 2013: 3), the experience of flow itself is characterised by the transcendence of time, the perceived ease and fluency by which creative ideas and creative processes align, leading often to a wider experience of serenity and calm. Creative flow is an empowering and rewarding experience and can often emerge when overcoming problems as well as when dealing with perfect creative conditions.

Creativity in music is multifaceted and undoubtedly workful in being domain centred and stylistically appreciable. As observed by Burnard in Odena (2012), multiple creativities are present in music each subject to greater uncertainties of definition in the context of technologically and socially situated musical creativity. There being tensions between established cultural systems delineating forms of musical creativity, and the proliferation of new forms of collective musical creative activity, the simple involvement of networked computing in creative activity creates ambiguity and uncertainty. Computers make everything and nothing possible simultaneously. On the one hand, the range of choice to too broad, distracting attention towards filtering of options and possibilities, on the other, the opportunity to focus attention on fine details and to access parameters with which to play can provide fertile ground for creativity and inventiveness.

Creative pain and elevation

The single most unusual experience of this project was that of the most acute creative duress. Having sought initially to ring-fence time to defend and protect creative space, the mandatory aspect of compositional activity on oc-
casions became acutely stressful. Providing a stark indicator of the impact of wider personal circumstances on creative motivation, the experience of creative distress, whilst not an unfamiliar experience by any means, was nevertheless concentrated by the project parameters and consequently experienced in almost visceral terms.

On one occasion in particular, the process was so precariously balanced on the boundary of abandonment to have created almost creative crisis. I have never composed music so unwillingly or found the tools at hand so inhibitory or unintuitive to operate. I learnt nothing, gained nothing, and produced low quality ideas. Only on reflection is it possible to gain any form of value in terms of a better understanding of creative self and the need to evaluate approaches to creative practice in the context of wider responsibilities and distractions. Distinct from the experience of ‘writer’s block’ (Flaherty, 2004), an experience familiar but not actively encountered in this project except fleetingly where creative flow dipped to low levels, in general the difficulty developing pleasing musical ideas tended to correlate with periods where motivation to succeed was also extremely low. There was not so much an experience of frustration at difficult points, as resigned misery. At times, ‘cognitive flexibility and persistence’ (Gutnick et al, 2012) was dulled to the point of negligibility.

However, whilst perfect circumstances may not have been established at any point in this project, constraint and even difficulty did lead to creative insight and creative elevation and flow. On more successful occasions, creative elevation, or the experience by which a high degree of germinality is experienced in the development of musical ideas, occurred quite spontaneously, often in the face of uncertainty or even disinterest. On numerous occasions, the translation and documentation of musical ideas—the programming of sound events and related signal processing—led to results deviating from that originally envisaged, but in pleasingly unexpected ways. The sensation of following the composition rather than dictating it is perhaps the simplest way of articulating the distinction between creative elevation and creative flow or peak experience. Whilst progress may be difficult, sometimes the musical ideas seem to come alive by themselves and determine their own development and direction. Such experiences occurred in conjunction with creative flow and high levels of creative enjoyment, but also occurred unexpectedly during periods of creative uncertainty, pressure and stress.

**Summary and conclusions**

Considering the notion of creative transference, and the extent to which creative expertise can be translated across creative domains, initial assumptions about the inhibition of creativity as a consequence of the practical challenges of professional life may well be somewhat misplaced. Whilst of course there is an inevitable compromise over autonomy in the vast majority of pro-
fessions and life circumstances, and consequent reduction in time available for many activities, personal creativity is ultimately a matter of choice not of circumstances. One of the most significant realisations resulting from this project is simply that many of the same patterns of thinking and doing I associate with compositional activity, I also associate with approaches to other non musical activity. Quite simply, I have transferred aspects of the way I work musically into other activities, and manage to accept long periods of time between explicit acts of musical composition because I retain the ability to develop musical ideas with complete freedom, and have avenues to direct my predisposition towards aesthetic manipulation and communication of concepts and ideas in many other areas.

Whilst opportunities for play—creativity for creativity’s sake—may become scarce for many reasons, they never entirely disappear. As with creativity, play is a matter of choice not of circumstance, and whilst the inhibitory factors depressing playfulness may well be acute to the point of being insurmountable on occasions, there can be value in deliberate acts of play from a personal well-being perspective. Indeed, there simply not being the time may be the very reason to make time. Whilst some creative activities in this project proved to be negative or to incorporate at least difficulty, there was in general benefit evident in the creative routine perceived in overall terms. From positive reflection of a creative event providing an obvious boost to mood, the background anticipation of forthcoming compositional activity also developed a structured framework for musical thinking and ideation. From aimlessly imagining musical thoughts, more focused and more playful musical thinking developed throughout the project. Perhaps most importantly, there was a sense of creative identity being rediscovered and reaffirmed.

Ultimately, this project became a journey of personal rediscovery, reflection and evaluation. Whilst not enamoured by much of the resulting musical ideas, there are, nevertheless, a number of elements to which the prospect of future return is enticing. Identifying, pleasingly, that the core of my own creative being remains marked by creative optimism and confidence, when things did not go well, external factors remained quick to be identified and blamed, whilst corresponding success was routinely internalised and claimed in a very personal way. Even in the case of the creative low point in the project, where some degree of recovery was required, the experience has no substantial impact on the perception of subsequent creative activity. There being no expectation necessarily that outcomes would always be positive, there was never a fear of negative outcomes and any subsequent ‘avoidance motivation’ (Icekson et al, 2014) stemming from this.

Reflecting on the questions introduced earlier in this text:

- What happens if you impose limitations on creative activity?

Constraint is inevitable and can provide either a positive or a negative influence on creative activity. Limitation can also be conceived of in different
ways. The limitation of composing purely for piano simply opens freedom to focus compositional thinking in other areas, whilst the liberation of computer-based sound resources nevertheless limits scope for simple choices during the creative process. Limitation necessitates adaptation and subversive approaches to convention in order to reach new territory. Lack of time forces speed of thought, lack of motivation leads to laziness, shortcutting and patterned behaviour, and lack of materials forces appropriation and modelling of ideas; all of which can lead to new ideas that may not have emerged under less constrained conditions. Nevertheless, impose the perfect negative cocktail of constraints on creative conditions, and the impact can inhibit all connection with creative activity and invert all usual associative experiences.

- Why are there limitations on creative activity?

Limitations, or at least boundaries, are necessary both to define the creative activity and to determine the framework through which it can be subsequently evaluated. From the perspective of this project, compositional methods returned both to familiar patterns of working and to known sound sources and musical language. Perhaps the ultimate limitation being that of creative self, whilst this is hoped to be full of as yet undiscovered possibility, the familiarity of personality, or creative idiolect, is a necessary and inevitable commonality in all creative activity.

- Are creative inhibitors real?

Beyond practical inhibitory factors, and those conceptually with potential to enrich as much as compromise creative activity, lie the most erosive and destructive; the imagined. Albeit experienced very much as an almost concrete cognitive barrier, the mental capacity to even open thought processes to creative ideas can be hugely disrupted given appropriate external pressures. Whilst creative flow is effortless and even rejuvenating, creativity requires energy to begin. Physical fatigue itself is not necessarily problematic, and indeed can contribute towards development of more relaxed states of mind, but mental fatigue can be extremely difficult to overcome with anything other than sleep. Consequently, whilst invisible, the most inhibitive factors encountered during the course of this project were not time, routine, or the commitment to publication, but were always those related to the level of creative energy available. Where personal circumstances provide opportunity carve out time for creative pursuits, there may also need to be supplementary attention to the maintenance of creative energy and motivation.

- What are the implications of creative inhibition?

From a personal perspective, the implications of creative inhibition related to the loss of motivation or even negative creative experience, are trou-
bling. That an activity such as the composition of music could move from being an effortless, accessible, and relished endeavour, to become a marginalised, difficult and even traumatic experience depending on the circumstances involved, is at least a disappointing point to reflect upon. Nonetheless, the affirmation experienced through more a structured compositional routine provides more than sufficient compensation. The implication of creative inhibition is simply adaptation. Solutions will be found to limit negative creative experience not by avoiding the activity, but by altering the process. The parameters will be loosened and a focus on rejuvenating playfulness in creative methods will be explored. Not for the sake of creativity, but for the sake of play. Whilst there may well be a close association between creativity and nightmares (Hartmann & Kunzendorf, 2013), to live without creative practice would be unthinkable.

“Creative work is not a selfish act or a bid for attention on the part of the actor. It’s a gift to the world and every being in it. Don’t cheat us of your contribution. Give us what you’ve got.”
— Steven Pressfield (2002)

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