The 2nd International Conference on Design Creativity (ICDC2012) Glasgow, UK, 18th-20th September 2012



'NO TIME LIKE THE PRESENT': AN INVESTIGATION INTO 'TIME' AS A CONSTITUENT OF THE CREATIVE PROCESS

C. Treadaway¹ and K. Smith²

¹Cardiff School of Art and Design, Cardiff Metropolitan University, Cardiff, UK ²School of Drama, Fine Art and Music, University of Newcastle NSW, Newcastle, Australia

Abstract: This paper describes an on-going practice based investigation exploring the ways in which time influences the creative process. The research reveals how time issues have potential to both stimulate and constrain creative thinking and thereby shape generative thought and inspire making processes. A case study is described involving two artist/designer researchers who are currently engaged in a collaborative art making project using a variety of digital tools to support their creative practice. Findings reveal that perceptions of time within creative experience are both qualitative and chronological and as such can be both stimulating and constraining to creativity. Although advances in digital technology are designed to 'save time' paradoxically the result is frequently an increase in the number of tasks undertaken. The consequence of this is a reduction in the available 'free time' for personal reflection, imagination and heightened sensory awareness in the physical world, which is so vital for creativity and human wellbeing.

Keywords: Time, creativity, collaboration

1. Introduction

This paper documents a collaborative practice based research project that explores the notion of time as a constituent within the creative process. Each section heading uses time related aphorisms or English 'sayings' to introduce the particular themes that are discussed e.g. 'The race against time' presents the rationale for the research; describing the need to understand the relevance of time in the creative process in a society which is increasingly stressed by lack of time. 'No time like the present' describes the use of digital technology support the creative process. Further information on the project and images can be found at: http://www.cathytreadaway.com/research/present/

1.1 'The race against time' – research problem

Picture a child playing on the beach. She sees the blue sky, feels the warmth of the sunshine, hears the sound of the ocean and is aware of the sensation of damp sand between her toes; she is lost in the moment. Moving her hand across the sand she draws a pattern and decorates it with shells; a creative moment is taking place and time stands still. Contrast this picture with almost any scene from a normal adult working day in contemporary Western society. The hours are often spent with the locus of attention focused largely on screen based media, thoughts punctuated by the frequent interruptions of communication technology. The pace is fast, time flies; there is never enough time to get everything done.

Playtime and time spent with no fixed goal or predefined objectives both have negative connotations in the adult mind (Huppert, Baylis et al. 2005). Our desire is to speed things up, 'make' or 'save' time; playing is reserved for children and savoring the moment is a rare treat and often brings a sense of guilt for time wasted (Hannaford 2010). Nevertheless, the importance of play, experimentation, exploration and serendipitous experience are all recognized and accepted essentials within the creative process (Sternberg 1988; Smith 1995; Amabile 1996; Hannaford 2010). How then are the changes in the way we live and the technology we use, impacting on our creative strategies. How does 'time' impact on the creative process?

Our perception of time varies dramatically depending on our level of interaction with the physical world and cognitive engagement with it. When we attend to the moment and heighten our sensory awareness, time appears to lose its grip. Time can be flexible, elastic, depending on what we are doing, who we are with and what we desire. The recent emergence of the Slow Movement has focused attention on some of these issues, highlighting that there is an alternative to fast food http://www.slowmovement.com/. Distance Lab is providing different means of communication that is slow and more emotionally satisfying: http://www.distancelab.org/projects/mutsugoto/ Artists have brought to the attention of the general public the importance of slowness in making and an awareness of appreciating and apprehending the 'moment', through recent exhibitions such as 'Taking Time; Craft and the slow revolution' http://www.craftspace.co.uk/page.asp?fn=2&id=57&stp=1&grp=2

Time is on the agenda and for good reason since research evidence indicates that our preoccupation with filling time at a fast pace is undermining our health and quality of life (Huppert, Baylis et al. 2005; Sternberg 2009; Hannaford 2010).

1.2 'Making time' - research methodology

An investigation into time as a constituent within the creative process could well be described, therefore, as 'timely'. This paper describes a collaborative practice based investigation, which has focused on time within the creative process. Using a qualitative methodology and a 'studio as laboratory' method of collaborative art making to gather data (Edmonds E, Weakley et al. 2005), the action described in this research has sought to practically test out and document a specific creative process which was stimulated and constrained by aspects of time. Since it is difficult to precisely explain and define the workings of the human mind (Candy and Edmonds 2002), this is a qualitative study, in which the experience of the art practice and research process are also embedded in the artworks that have been created. Documentary methods have been used to capture data including video and audio recordings of practice and semi structured interviews, reflective research logs and sketchbooks. The collaborative nature of the project has provided opportunities for both artist/researchers to interrogate, explore and validate the experiences and reflections of the other through the project.

The research data has been analyzed to identify and categorise recurrent issues such as: *stimulants to creativity, time constraints* and *use of technology*. These themes have been used to assert the claims made in the discussion section that time can play a vital role in the creative process as both a stimulant and a constraining factor. Technology may provide us with the tools to speed up processes to make more time available, however in art practice it can also be shown to reduce the potential time for creativity and making. Our perceptions of time within creative experience are both qualitative and chronological: both stimulating and constraining to creativity.

2. 'Borrowed time' - stimulating creativity

The 'Present' research project is an ongoing collaboration between the authors of this paper who are both practicing artists and academic researchers working on the opposite sides of the world. The research documents the development of a series of artworks developed in response to the discovery of a set of archival photographs by one of Smiths's students. These images became the starting point of an intense period of collaborative creative activity which took place during a 15 day research visit to Australia.

2.1 'Time capsule' – research project context

The archival photographs, taken in 1934 depicted an area of the Newcastle shoreline called the Canoe Pool (Ray 2010). The images portray the public opening event of a children's boating pool shaped as a map of the world which had been cast in concrete on the rock platform on the beach. The design concept was intended to enable children to imagine sailing their toy boats around the world, to and from Australia, which was located in the centre of the map. The Canoe Pool 'World Map' had disappeared from the beach by the 1960's and since no visual evidence remained, had become local myth. Storms and strong tides had eroded the pool which constantly filled up with sand. The discovery of the photographs in 2010 aroused considerable local interest and proved evidence that the 'World Map' was not a myth but had existed in this location (Ray 2010). Smith's professional interest in these photographs and his knowledge of the locality made this an appealing starting point for the visual themes in the study. The archival photographs were a snapshot of time past and provided an example of how 'time' might be used as a stimulant in the creative process.

Smith's technical interest in the photographs inspired his desire to find the exact location that had been used by the original photographer. A place on the bank above the Canoe Pool was identified and a photograph was taken from this spot in order to capture the location as it appeared in October 2010. These two images, the original from 1934 and the contemporary image, were merged in Adobe Photoshop® to create a new combined version. This image was used throughout the investigation as a resource to locate positions in the Canoe Pool area now filled with sand. The likely position of Australia was located and this was subsequently recorded using the global positioning system on the Apple iPad®.

Time, place, and associated memories are recurrent themes commonly used by visual artists to stimulate their creative practice. The opportunity to spend time in this specific location and engage with both public and private memories was relished by both practitioners. For Smith this included personal memories of family outings to the beach and for Treadaway it involved making new memories in the location which drew from the historical and anecdotal narratives and photographs.

2.2 'Thinking time' - idea association and development

One of the most significant aspects of the project highlighted in the recorded data was the importance of the initial idea sharing phase. This took place over two days; the first at the university and the second sitting in a shelter overlooking the Canoe Pool location. Both occasions stimulated different types of ideas; the first day explored ideas around the archival photographs, memories and maps and the second day centered on the potential artifacts that could be created, which included treasure maps, boats, postcards, containers with messages inside and treasure boxes. A consensus was reached on the creation of an artifact that might be buried or hidden that contained clues about the past history of the location. Smith states in the recorded interview: 'I would like to create something that someone can take away if they discover it....and there will be enough information in there for them to rebuild some kind of history about the actual history of the place...'

Some of the archival photographs depict a particular gentleman with a suitcase, probably containing a model boat. Ideas around treasure boxes, containers and suitcases were explored verbally and the decision was made to make a suitcase or box. There was insufficient time to craft the kind of suitcase that was envisaged so a plastic box had to suffice. Although regarded as being a prototype for a hand crafted suitcase, this small plastic box was used for an initial series of photographs. The contents of the box were a series of tiny artifacts created by Treadaway from objects found on the shore.

Another idea was to make sculptures that would float, referencing the model boats in the old photographs. The idea was not to craft a model boat *per se* but to use found elements from the beach location and create a series of artifacts that would move on the water. These were glued and stitched into compositions onto balsa wood and strung with nylon thread. Treadaway had travelled from the UK with limited resources for making the works so tools and materials had to be improvised, begged or borrowed. The result was a series of small hand crafted objects that were photographed and video recorded in a variety of locations around the canoe pool.

The suitcase, box and boat ideas influenced the development of the final concept: the treasure box. This contained a print of the merged photograph, one of the boats, a small coin and shells. The lid

contained the link to the web address of a site containing the archive photographs and historical details about the canoe pool. This box was buried in the sand in the location identified as Newcastle on the coast of Australia on the World Map at the Canoe Pool. The performance of burying the box was video recorded using an iPhone.

2.3 'Playtime' – experimentation and exploration

The Canoe Pool was, and continues to be, a social place for play. Both children and adults used the pool when it first opened and it was so popular that it had to be extended to make room for the adults. Play is an essential learning opportunity for children; their encounters with the world, through play, shape their thinking and their social relationships (Dissanayake 2000; Hannaford 2010). For adults however, the idea of play becomes increasingly embarrassing as adolescence is reached; once into adulthood play has to be justified or there is often a sense of guilt at time 'wasted'. The significance of play in the creative process has long been recognized (De Bono 1995); however, even artists find they have to legitimize their play. In the documented audio interview material Smith talks about having to 'justify play in serious terms' and when reflecting on play as a particularly stimulating aspect of the project he states: 'I was allowed to play, whereas I find it really hard to make that space because there's always so many really serious things that need to be done'. He noted that having a 'partner in crime' through the collaborative process, also contributed to the liberating experience:

'I'm playing and we're playing and it's just so stimulating; it's a totally different head space.'

Finding personal permission to play also requires time to adjust and unwind. It was several days into the project before Smith was able to switch off effectively from the other demands on his time and 'head space'. The clear indication that this had happened occurred when making the cardboard treasure box and Smith decided to role play being a pirate. It was at that point the recoded data that Treadaway reflects:

'The day I loved was the day you became a pirate - do you remember? And you said: 'Ah ha me hearties let's bury the treasure'...I suddenly thought, he's in the role play thing now, he's into this; we have both got lost in the imagination of the moment – this is proper play now, it has become fun!'

The act of being 'lost in play' suspends time and fear of judgment; the imagination is stimulated and new ideas form and associate with others: 'Just one thing keeps leading to another in the way that every other process for me doesn't - and that's the creative process.'

Improvisation with both concepts and materials is permitted in this playful state of idea association. Anything can be explored and there is no such thing as a *mistake*, just a different avenue to explore. A floating artifact of any kind could represent a boat to sail on the Canoe Pool. But what if it hung from the chain around the pool maybe it could be a flag or a kite too? The importance of playfulness in idea association is evidenced in the development of the artworks created during this part of the investigation. Time spent playing was *open* time, unlimited and unconstrained – until it had to stop and it was time to go home. Time *then* was perceived as having passed very rapidly and had evaporated in the pleasure of making and doing.

3. 'Strapped for time' - time constraints

The audio recorded reflections and interviews from the project provide numerous instances indicating the ways in which time became a constraining factor in the creative process. This was both detrimental and advantageous: constraining and limiting the scope of idea generation but also providing limitations on the decision-making process to narrow down ideas and help select those most appropriate to pursue.

The recoded data is punctuated by Smith's comments about having insufficient time, feeling time pressured or worrying about being late... 'I felt I was often running late...it would have been nice to have had longer....there was a bit of frustration at just the time thing'... His busy academic job impinged even into the time that had been allocated to the research and denied him the 'head space' and physical presence that he had planned during the project. However, once in situ he was aware of having a sense of permission to take time out; this was validated by the collaborative nature of the

research. Gaining a sense of self permission to take time appears to be of crucial importance. It allowed a more relaxed attitude to the flow of ideas and a more playful approach to the ways ideas could be stimulated. As soon as time pressures were focused on, less exploration or divergent thinking could occur; ideas narrowed and time factors became limitations and constraints.

The opportunity to gain time out, to feel a sense of permission to be creative and to playfully explore ideas, location and materials was described by both practitioners as being 'refreshing,' 'energizing and exciting'. Smith articulated ways in which the creative process provided him with a sense of wellbeing:

'Half an hour of creativity and I'm rejuvenated. Everything else gets into perspective. If I don't get that...I'm just weighed down and not really able to focus; the irony is that by taking that extra time I'm more able to be focused with the other stuff and more realistic and let a few things go!'

Time out provides opportunity to refocus on the moment and appreciate more fully the sensory pleasures that are not often noticed:

'You're hypersensitive to lots of things that you normally have to switch off to do the other stuff more effectively otherwise you'd be drifting off all the time...'

The physicality of the location, bodily movement and manipulation of tools and materials were each noted as stimulating visual ideas and are evidenced in the resulting artworks.

3.1 'Just in time' – prescriptive and organic approaches to creativity

Taking time out from a busy schedule and giving oneself permission for the mental space to be creative requires some adjustment; this too takes time. How this time is then organized and used productively reflects the personality and approach of the practitioner. The recorded data from the project reveals two distinctive approaches characterized by the practitioners as *organic* and *prescriptive*. Treadaway's 'organic' approach was evidenced in her desire to make use of serendipitous unstructured time without fixed goals and she called this 'exploring, adventuring' and 'stumbling and bumbling'. Smith by contrast had a predefined set of specific objectives with very fixed goals. The collaborative nature of the project entailed negotiation and compromise in these two differing approaches. Smith admitted to being anxious about how this might work out practically and when asked what was one of the most surprising outcomes from the work he responded:

'I guess that those prescriptive aspects of where I was coming from could be integrated nicely into the more organic approach that you've got...I don't think I would have done a very good job of being more organic or whimsical.'

The combination of the two approaches was mutually beneficial in the development of the artworks since Treadaway confessed that she might have 'wasted time' and Smith's organization of the specifics of the project provided useful focus given the short time available. Smith had planned 'a specific location, some activity' and expressed his worry that he should be 'a bit more organic'. 'I have a very tight formularized approach to things and I'm interested in that being interrupted.' The combined approach from the collaboration proved successful and stimulating: 'we just wove in and out, ideas just interwove'.

Smith's tighter methodological approach was evident in his desire to replicate exactly the position of the original photographer and pin point the precise location of Australia on the World Map under the sand. Considerable time was invested in marking out the sand and recording each detailed point on the photograph with the corresponding position of a marker on the sand. Each action was planned, mentally rehearsed and executed with great precision. Treadaway by contrast focused on serendipity. Observing and responding to the environment and forging connections between the physical experiences of being in the location and the memories of the place captured in the archive photographs.

The constraints of limited time as the project progressed directly impacted on the approaches of both practitioners. Smith invested his time in replicating the photographs with accuracy rather than crafting a suitcase which had been his original stated intention. Treadaway focused on hand crafting with

improvised materials rather than spending time sourcing a range of tools, materials and technologies. The hands on improvisational approach led to outcomes which were more directly linked to the physical location and the experience of the place; the time constraint had forced focus directly on the location, which had been the agreed theme for the project. In this way the time constraint became a creative stimulant, resulting in work which would not have been achieved if there had been more time available.

Considerable discussion took place concerning the need for achievable and realistic goals. There was discussion on a number of occasions about complexity and the need to simplify ideas:

'I think we need to pare it down or else it will go beyond what you will be able to communicate to anyone else ... visually.'

The limited time available to execute the concepts that had been discussed originally, resulted in a honing down of the ideas as the work was created. Photographs, images and videos were made at various stages, in order to make best use of the time and to get something 'in the bag'. Both practitioners saw the need to evidence the time spent by creating a physical artifact, series of objects, images and recordings: 'a permanent reminder of a period of time that was productive, fun, creative.'

In order to capture, manipulate and output these ideas an array of digital technologies and devices were used. The devices used on location during the project comprised three digital cameras, a digital time-lapse controller, iPad and iPhone, and in the studio computers, scanners and printers were used.

4. 'No time like the present' - technology to support creativity

Digital technologies facilitate a huge range of creative opportunities to make images that could not be made by any other means. As the technology becomes smaller, increasingly portable and embedded it is possible to collect a vast amount of visual information for use in developing artworks. In stark contrast to the limited number of original archival photographs that stimulated the project, hundreds of digital photographs of the location and developing artworks were taken. The facility to download share and manipulate the images, almost instantaneously, encouraged exchange of images and ideas.

The original photographs had captured a moment in time. The digital facility to merge this with a captured moment during the project, taken from exactly the same viewpoint as the original, was significant to Smith. He described the feeling of standing in the exact location of the original photographer as an 'extraordinary cross time experience' that gave him 'tingles just thinking about it!'

The use of digital cameras speeded up the image-making process. This gain in time however, was used to take even more photographs which took time to download onto the computer, file and review. Hundreds of images were taken during the project. The task of reviewing and selecting became time consuming and daunting. Treadaway described the photographs as: 'a huge resource - it's probably a year's worth of stuff…it's just so much…is it too much?...how do you organize it?' The clear parameters of the project enabled Smith to focus on exactly the image needed to merge with the original archive shot and this was done using layers in Adobe Photoshop®.

Treadaway used her iPhone as a video, camera and audio recorder throughout the project and found it to be extremely useful for instantaneously capturing ideas. A digital SLR camera was also used for still photographs, to gather visual inspiration as well as record the research process. An iPad was used to review images and locate geographic positions using the integral Global Positioning System (GPS). In the studio a scanner was used to make some very high resolution scans of some of the artifacts (boats) both to record what had been made but also to observe the detail in the enlarged images.

Digital tools facilitated reviewing, ordering and organization of images. Memory sticks and file sharing facilities enabled communication and collaboration within the project, stimulating and supporting the development of visual ideas.

5. 'Time's up!' – discussion and future work

Many studies have identified that discrete and identifiable iterative phases occur during creative processes (Wallas 1926; Sternberg 1988; Smith 1995; Amabile 1996; Lawson 1997; Resnick 2007). There are a number of models suggested for categorizing these phases; for example, Heimholz (Amabile 1996) describes them as saturation, incubation, illumination and verification and Wallas (Wallas 1926) as preparation, incubation, illumination and verification. The initial period of information gathering (saturation or preparation) and the subsequent period of reflection on this material (incubation) have been shown in the research described in this paper to be facilitated by unconstrained time which is given willingly with self permission. Playfulness, imaginative activity, experimental exploration of associated ideas occurs best when living 'in the moment'; this appears to result in a diminished consciousness of time. Creative insight (illumination) seems a pivotal point following which time may be used to creative advantage through its capacity to constrain thinking, narrow focus and direct thinking towards identifiable goals. The final stage (validation) in which ideas are tested, prototyped or made, crafted and honed, can be influenced by time both as a constraint, forcing decisions to be made due to time pressures and deadlines, as well as a constituent to spur on new insights and investigations through time given to working with processes and materials. These sequences of divergent and convergent thinking are iterative and may be replicated throughout various stages in the creative process.

The ancient Greeks used two distinct words for time: *kronos* and *kairos*. *Kronos* suggests a quantitative and sequential perception of time whereas *kairos* indicates an undetermined period of time in which something happens. *Kairos* is a qualitative time: the perfect moment; a moment of opportunity which requires activity to achieve success. The authors contend that this concept of *kairos* applies to those moments within the creative process in which time stands still, there is immersion in an activity and a lack of conscious awareness of time; this is the moment of creative opportunity from which insight emerges.

The recorded data from the Present research project provides instances that illustrate ways in which kronos and kairos time act as creative stimulants and constraining influences. During the project *kairos* time was identified in those moments when the authors were immersed in playful engagement with an idea and time appeared to stand still; this state was found to be both energizing and creatively productive. Lack of time and time pressures were shown to be inhibiting at the initial divergent thinking phase and forced mental focus on goals and outcomes. This awareness of *kronos* time was also useful as a constraint, shown to narrow focus and creative options, aiding decision-making and sometimes leading to improvisation with tools and materials.

The project also provided opportunity to evaluate ways in which technology supported the creative process. Although digital technologies are considered 'time saving' devices, they do not necessarily provide 'free' or 'spare' time but rather make more time available; e.g. to take more photographs, or to experiment e.g. combining or manipulating images. The data provided evidence that the creative approach taken when using the technology is key to how well it supports practice. Time to reflect will be less productive within the creative process if there is too much information to reflect upon. Knowing how much information to collect, being confident about how it is to be used and what goals are to be achieved are the factors that enable productive decision-making and assist the creative process.

The ability and opportunity to get lost in the 'flow' of making or engaging creatively in an activity, so that there is no perception of time, has been found to be beneficial to subjective wellbeing (Huppert, Baylis et al. 2005; Sennett 2008). The act of living in the moment and appreciation of the world through heightened sensory awareness that this brings reduces the production of stress hormones which are inhibiting to good health (Sternberg 2009). The recorded data from this project identifies numerous occasions where both practitioners commented that they felt energized, refreshed and were able to gain perspective on life as a result of taking time out and being immersed in the creative activity.

The second stage of this research will continue to investigate 'time' as a constituent of creativity, exploring how time zones, geographic location and digital communication can stimulate the development of further related artworks.

Acknowledgement

We would like to thank the British Academy, Arts Council of Wales, and NAN for their support in making this research possible. Thanks also to Greg and Sylvia Ray for their permission to use the archival photographs.

References

Amabile, T. M. (1996). *Creativity in context: update to The social psychology of creativity*. Boulder, Colo.; Oxford, Westview Press.

Candy, L. & Edmonds, E (2002). Explorations in art and technology. London, Springer 2002.

Csikszentmihalyi, M. (1996). Creativity: flow and the psychology of discovery and invention. New York, HarperCollins Publishers.

De Bono, E. (1995). "Serious Creativity." Journal for Quality and Participation Sept 1995; 18, 5; pp12.

Dissanayake, E. (2000). Art and intimacy: how the arts began. Seattle, Wa, University of Washington Press.

Edmonds E, A., A. Weakley, et al. (2005). "The studio as laboratory: combining creative practice and digital technology research." *International Journal of Human-Computer Studies* 63: 425-481.

Hannaford, C. (2010). Playing in the unified field: raising and becoming conscious, creative human beings. Salt Lake City, Utah, Great River Books.

Huppert, F. A., N. Baylis, et al. (2005). The science of well-being. Oxford, Oxford University Press.

Lawson, B. (1997). How designers think: the design process demystified. Oxford, Architectural Press.

Ray, G. & S., Ray (2010). Newcastle, the missing years: photographs of Newcastle in the 1930s and 1940's. Newcastle NSW, Ray and Ray, *Newcastle Herald*.

Resnick, M. (2007). All I Really Need to Know (About Creative Thinking) I Learned (By Studying How Children Learn) in Kindergarten. *ACM Creativity & Cognition conference*, Washington DC, USA, ACM.

Sennett, R. (2008). *The Craftsman*. London, Allen Lane.

Smith, S, Ward, W. & Finke, R (1995). *The Creative Cognition Approach*. Cambridge, Massachusetts, The MIT Press.

Sternberg, E. M. (2009). *Healing spaces: the science of place and well-being*. Cambridge, Mass.; London, Belknap.

Sternberg, R. J. (1988). The nature of creativity: contemporary psychological perspectives. Cambridge, Cambridge University Press.

Treadaway, C. (2006). Digital Imaging: It's current and future influence upon the creative practice of textile and surface pattern designers' PhD, University of Wales Institute Cardiff.

Treadaway, C. (2009). "Translating Experience." Interacting with Computers Journal 21(1-2): 88-94.

Wallas, G. (1926). The art of thought. New York, Harcourt, Brace and Company.