

# Agile Thinking in Motion Graphics Practice and its potential for Design Education

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**Abstract:** *Motion Graphics is relatively new subject and its methodologies are still being developed. There are useful lessons to be learnt from the practice in early cinema from the 1890's to the 1930's where Agile thinking was used by a number of practitioners including Fritz Lang. Recent studies in MA Motion Graphics have accessed some of this thinking incorporating them in a series of Motion Graphic tests and experiments culminating in a two minute animation "1896 Olympic Marathon". This paper demonstrates how the project and its design methodology can contribute new knowledge for the practice and teaching of this relatively new and expanding area of Motion Graphic Design. This would be not only invaluable to the International community of Motion Graphic practitioners, Educators and Researchers in their development of this maturing field. But also to the broader Multidisciplinary disciplines within Design Education. These methodologies have been arrived at by accessing the work of creative and reflective practice as defined by Carol Grey and Julian Marlin in Visualizing Research (2004) and reflective practice as defined by Donald Schon (1983). Central to the investigation has been the approach of Agile thinking from the methodology of "Bricolage" by Levi Strauss "The Savage Mind" (1966)*

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### Introduction

This paper looks at how agile thinking as expressed by Levi Strauss "The Savage Mind" 1962, English translation 1966, has a direct relationship to the practice of the newly emerging creative field of Motion Graphic Design.

The paper intends to demonstrate this showing example of practice from early cinema as well as recent contemporary motion practice. A series of Motion Graphic practice based creative tests and experiments have been undertaken that explore this agile thinking forming an animation "1896 Olympics". This paper reports on these tests and experiments whose results intend to aid other researchers and practitioners.

Because of the multidisciplinary approach to the project these findings could transfer to other practice based disciplines. One thing that appears to be common across many Art and Design teaching disciplines is a student's tendency to spend too much time focussing on research. Not starting to create prototypes and tests early enough in the design process.

### Practice based research methods

"Agile thinking" coming from Claude Levi Strauss's "Bricolage" method has been used as a practice based research method throughout this investigation. The French anthropologist used "Bricolage" to describe any spontaneous action and further extending this to include the characteristic patterns of mythological thought. "The Savage Mind" developed the term Bricolage that in summary is seizing things on the wing, a kind of instinctive method, seizing opportunities from a number of sources as they arise.

For an Artist or Designer using this method it is important to have a clear sense of what you want to do. During the "1896 Olympics" project a system has been developed to help make sense of large disparate creative opportunities. Using a series of three concentric circles that we are calling the "Target Method". This can be used to help define early design ideas stage and during the production phase prototypes. Helping to gain focus and direction in a project with multiple inputs and influences.

The Target Method has also been used to help define this newly emerging subject discipline "Motion Graphics" outlined later in the paper.

### Research Method for Practice

Two methods have also been used within the Practice based models from Carole Grey and Julian Malins book "Visualising Research" 2004. The chosen research methods "Action and Reflection" and "Revising Traditional Practices in new contemporary contexts".

Reflective practice as defined by Donald Schön in his book *The Reflective Practitioner* in 1983 has been used for "reflection on" and "reflection in" practice throughout all the stages of the project. The "Reflective Practice" method is also being used, as it is implicit in all Art and Design investigations.

There has also been the use of Case Studies method (as Grey and Malins reference its use in Social Science) to look at a range of Motion Graphics works to better understand the subject and compare and contrast different works looking for connections and differences and influences on the "1896 Olympics animation."

### Agility and Bricolage

Agility – A core element of being able to seize opportunities is the need to be continually agile. This paper is suggesting that Agile is important in two senses. Firstly by not becoming too immersed in any one way of working. Secondly to keep looking for opportunities and new ways of working. This is especially important when working with computers where the software can often give the user the feeling that they need to know the entire programme to make any creative work. But also relevant to the current generation of Art and Design student learners.

This is especially common with Motion Graphics Software. This agility can also be where a camera can really play its role in the creative process. Particularly when filming Live Action where the camera operator or director is constantly responding to the live event and seeking ways to capture the event without becoming too deeply immersed and bogged down instead remaining agile. The 1896 Olympics project uses live action filming extensively. Agile thinking as Strauss suggests is appropriate to the Bricolure - seeing opportunities and being agile.

This can also be applied to creative practice. The practice of working fast - getting to the "first stage prototype" or rough design as soon as possible is really appropriate to innovative and experimental practice. Typically the outcome is difficult to predict and a series of quick agile tests will need to be undertaken and evaluated.

### First, Second and Third Stage Prototypes

#### *First stage prototypes*

The first stage prototype is a very quick visualization of an idea. This can take several forms; it can be a quick drawing, often called a thumbnail, which quickly explores the quick visualization and composition. During the act of drawing or making evaluation of this initial visualization often occurs leading to adaptation or creations of other new designs. These can sometimes lead to second stage prototypes.

This does not just apply to drawing, other forms can be; paper and card constructions useful when making three-dimensional early stage prototypes. The most important thing here is to work fast using simple cutting and simple fixing systems such as masking tape and or metal fasteners. As was the case with the first stage prototype running man puppets for the "1896 Olympics" animation.

#### *Second stage prototypes*

Second stage prototypes are a development from the first utilizing the knowledge created from the first stage. For example adding colour to a two dimensional composition, considering texture or materials. In the case of the puppets it was trying to create a more realistic running motion. Again these prototypes are rough and created without attention to detail. Working quickly with agility is still key to keeping ideas flowing. With a high level of importance put on not getting too bogged down with just one idea, design or mechanical methods.

#### *Third stage prototypes*

The third stage prototype becomes much closer to beginning the final type of design or more resolved design. In the example of the puppet theatre it was starting to put the running figures in context in a shadow puppet theatre construction.

Here it was important to see what the running figure would look like on a shadow puppet screen. It was important for the puppeteers to see things from an audience perspective using a camera connected to a large television showing this view-point. It was important for the puppeteers to view the TV screen and learn how to move the running figure in the most effective way possible.

Reflective practice was occurring "in action" with puppeteers able to evaluate different methods of controlling the puppet figures enabling them to understand what was the most important controlled movements to give the illusion of a running figure. The camera served two functions firstly to enable reflection in action but also as it was recording the footage live it could be used for recording reflection on action, by replaying the recorded footage the puppeteers could make a more objective evaluation of these different movement control tests.

A third stage prototype is taking the knowledge created from the second stage prototypes. Sometimes this will be considering a design's context, or working with the actual materials or using the actual tools that would be used in the final work. There will be a larger degree of reflection "in action" as well as reflection "on action". For example when working with colour several similar shades may be mixed and tested but a significant amount of attention will be given to comparing and evaluating which colour is the right way to go. Often these may be compared to initial designs or research.

The third stage prototype will be characterized by fewer designs being made compared to the first and second stage prototype and more time spent on reflection and evaluation. A third stage prototype is also characterized by a refining process as well as gaining a fuller understanding of what the main issues are of the design.

Through the case studies the paper will show that early reflection on this early agile work is essential to both Motion Graphic Design and Multidisciplinary practice in general. This method can be significant for other contemporary design disciplines their practice and pedagogy.

Practitioners and Educators are still yet to find methodologies for Motion Graphics being a relatively new subject in Art and Design using both modern technology and traditional areas. This paper aims to help contribute to this defining of methods. The investigations have been looking at some cues from practice in early cinema from the 1890s to the 1930s and connecting them with contemporary Motion Graphic practice.

The paper suggests that the design methodologies for Motion Graphic Design and Multidisciplinary Design are different to other design areas. This project contributes both new thinking for Motion Graphic Design practice but also the teaching of this new expanding area. As this project is multi disciplinary as its core these methods may be useful beyond Motion Graphics and be of use to other disciplines and Art and Design pedagogy.

Making sense from complexity; The Target Method

Defining Motion Graphics and the 1896 Olympics project

A common asked question is; "What is Motion Graphic Design?" During Jonathan Hamilton's recent MA study into Motion Graphics "1896 Olympics" the project looked into a variety of moving image methods. Collating these together realising that some of these methods were more central to the subject than others. As a result the project team developed a method for this research that they are calling the "Target Method" as a way of starting to define this new and emerging area of Motion Graphic Design.

This Target Method uses three concentric circles in a diagram form where the middle circle represents core subjects the second circle subjects that are central and the third and final circle are areas that are on the fringes of the subject. Beyond the third circle is a section that is called “outside-but close” For example in the core circle is title sequences for film and television. In the central circle split screen video and film on the circle called fringes would be colourist work and on the extreme edge of this circle is character animation in the outside but close area would be traditional narrative editing.

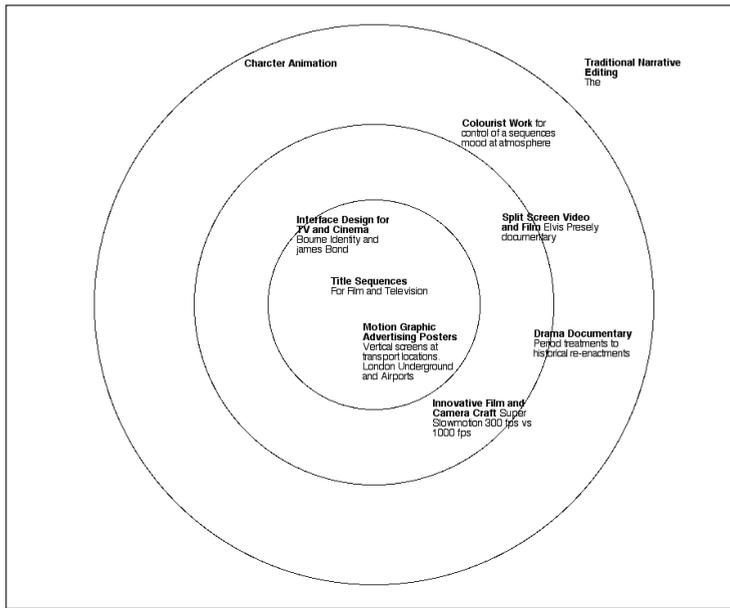


Figure 2; The “Target Method” in use; Defining Motion Graphic Design

#### The Target method Explained;

The target method is used for analyzing data this data is created at the early stages of the design process. It is most commonly used during the research period at the start of a project and its intention is to clarify the focus but to also not omit any findings and to get all findings in one place.

This method has been devised through teaching design students in the UK over several years. It has been clear that students have struggled to manage the wealth of ideas and designs and research material. From their previous studies at secondary school students arrive on undergraduate courses with a variety of working methods taught or adopted in earlier study. Where an over emphasis on research has occurred.

Generally students spend far too much time researching when they should really be working on first and second stage prototypes. The target method was devised to enable students to get a clearer idea of what the main issues are and to gain clarity. The common British phrase “I can’t see the wood for the trees” is often the case for students at this stage. The target method aims to create a pathway through this mass of trees.

Using the diagram;

The diagram works best when printed out on a piece of paper but could be used on screen as well. Some students find it useful to use a large piece of paper if they have a lot of material to quantify. The three circles are drawn out at the beginning and here each research finding is positioned in one of the circles. The student needs to evaluate which location is most appropriate. Students often find this most useful with a tutor present or with other students. One of the really valuable elements for the student is that every research finding is used having its own location on the diagram.

Students often come to a project at this stage feeling overwhelmed with the quantity of material they have found, they also feel that they have too many ideas that they are wrestling with. The target methods helps with all of these problems.

The three circles in the diagram, have particular uses each one requiring different content. Each circle has its own regional name. The "core" is self explanatory; this is where findings are central to the the topic. The "Contiguous Core" is the more important of these two circles; here material is put which is more ambiguous. Using a full width of this circle is useful sometimes. A finding may be put on the boundary of two circles it may be in the centre of this band. More consideration and evaluation is taken at this time deciding where this content should locate. The third circle called "Perimeter "follows a similar method .

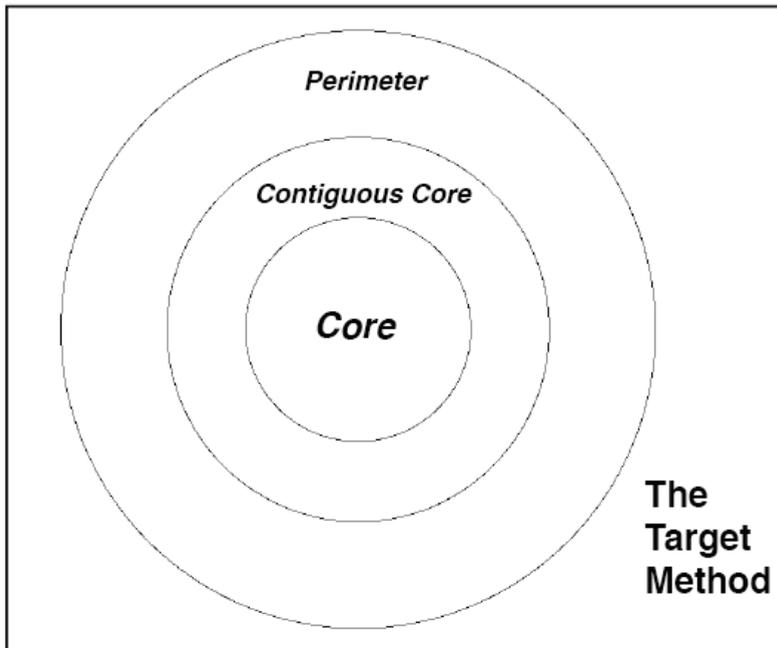


Figure 2; "The Target Method "

## **Agile Methodology**

Learning from practice in early cinema.

One of the key practitioners from early cinema whose work utilises agile methods for practice is Fritz Lang. His feature film "M" from 1931 demonstrates many examples of agile thinking. The Café scene where a camera in one take moves in a complex journey through the set past a series of characters spending time in the café is particularly effective and impressive.

Film cameras from this period were generally large static cameras on fixed tripods anchored to the ground. Yet Lang by using smaller cameras was able to design a sequence where camera movement was at its core. We can see here in the photograph that a very early "Dolly" system has been invented enabling a unique and sophisticated scene to be created.

Lang's Dolly is made from a simple three wheeled trolley adapted from a previous use. The Camera has its own movable mount on top of the dolly that allows the camera to slide sideways independently as the trolley moves throughout the shot.

The technical simplicity of these agile methods, yet giving such sophisticated results in camera, has given our study permission to take similar approaches. "M" had a direct influence on the "1896 Olympics" animation sequence. A similar makeshift dolly was made for the Poly-vinyl tunnel sequence, discussed later in the paper.

In addition to this Café scene in M other examples of agile methods are shown through the publicity photographs for the film and in the accompanying booklet for the "M" Masters of Cinema Series DVD. Photographs on the set of "M" show the camera positions used in several of the other scenes. To get the low down shot of the businessman at his desk the desk has been raised up in the set. In a more extreme example shows the camera at an extreme high view point where the crew and camera are at the top of a very high ladder looking down on the actors performance.

At the core of agile thinking is simple and uncomplicated working methodology. Whilst the practice may include technically advanced equipment, DSLR Cameras for example, these are used with non-complex working methods in simple non-technical ways. Enabling work to be created faster and adapted quickly.

Comparing agile thinking in historical and contemporary practice. Examples of where agile methods could have benefited recent contemporary practice.

In Anthony Nolan's 2010 Hollywood film "Inception" innovative large scale moving sets were used in the filming of several scenes. These scenes were developed to demonstrate changes in perception of natural force of gravity on the scene. But rather than using computer generated images (CGI) Anthony Nolan decided to do this for real. This was extremely ambitious and would involve significant amounts of planning and manpower to build the scenes in the film. But seems to lack dynamism on the screen.

The cameras used in the scene are mostly static and do not seem to consider multiple viewpoints. This suggests that a lot of the director's attention was in the construction of these large moving sets with less thought or testing done for the camera positions and movement for the scenes. The suggestion here is that early quick prototyping would have allowed time to experiment and test alternate camera positions by using smaller scale constructions including Low Fi card and paper models and very small cameras the director could have discovered more effective ways to change viewpoints and film with these innovative sets.

Other directors notably James Cameron in the original 1984 "Terminator" movie did significant pre production work for scenes building small scale models filling them with smoke and using small periscope cameras to work out how and where to position and

move the camera in a scene. Here Cameron is accessing agile working methods at an early design stage to gain knowledge early on in the production process.

Anthony Nolan in "Inception" clearly seems to have taken influence from Stanley Kubrick's 1968 film "2001 A Space Odyssey". Here Kubrick uses two memorable rotating sets but with much greater success on screen for the viewer. Here the camera clearly asks the audience to question physical gravity for the characters in the scene. In the space station scene the main character Dr David Bowman is seen exercising. Running in the sleeping quarters yet the set moves in a circular fashion rotating like a hamster wheel the camera itself moves with the actor. As the set rotates around the audience are forced to think about gravity and suspend disbelief helping to immerse the viewer towards an experience of living in outer spaces weightless environment.

In production stills for the film shown in *Stanley Kubrick ; A Life in Pictures* we can see the scale of Kubrick's ambitious set with reference to the testing of cameras and positions. Another famous scene from the movie further demonstrates the filmic exploration of a weightless environment. The scene where an airline waitress brings trays of food to the pilots and crew of the spacecraft. She is shown to be wearing anti gravity slippers that appear to allow her the ability to walk upside down whilst not dropping any of the things she is carrying. Here Kubrick has again utilised a rotating set and camera to make the audience believe they are defying gravity.

Both of these scenes demonstrate sophisticated use of cameras, sets and performers with an almost seamless experience for the audience. It is well documented that Kubrick in all his films did extensive testing and experimentation for special scenes such as these. Whilst he had a very large budget for the special sets he never lost sight of the importance of the image on camera and the viewpoint for the audience.

Here both Kubrick and Cameron have not lost sight of the importance of what is seen on screen their use of early stage prototypes when filming with a complex set. The filming resulting from these has been used to great effect. This agility and speed is extremely beneficial to both Cameron and Nolan could have benefited from these working agile methods too.

Recent practice from an MA investigation into Motion Graphics. Several examples of using agile working methods and the importance of reflection at early stages;

Through these examples of Motion Graphics practice this paper demonstrates that agility applies not just to thinking in an agile manner but that agility can apply to the speed in which first and second prototypes are made. These tests and experiments are believed to show how working quickly can have a considerable impact on the creative process. In the same way that first and second prototypes are being made quickly this paper proposes that reflective practice as defined by Donald Schoen needs to happen as soon as possible during the prototype stages.

#### DONALD SCHON AND REFLECTIVE PRACTICE;

Reflective practice has always been a key part of an artists approach to creating art works. The famous image of Mark Rothko sitting in his chair in his studio looking at one of his paintings for a long period of time thinking about his work and deciding what to do next is a great image of reflective practice.

In this case this is reflection on action. Thinking and evaluating work after it has been made. Equally important and very commonly used is reflecting in action whilst creating an artwork. Making decisions about how a line is drawn a colour is mixed or a texture is applied. A key component of this is being instinctive. But there are some dangers in reflection in action as it is not a fully objective way of assessing. It is quite

common when drawing to become frustrated and dislike the drawing produced. It is quite common for a tutor to say to a student to put a drawing away for two weeks and not look at it, as they are too close and immersed in the drawing, it is deficiencies and errors to be able to judge it.

Other dangers can be quite opposite to disliking the work produced. Especially with fast work where a live event may be happening an artist or designer can get carried away with the moment and be enjoying the process so much and the vibe of the moment that they could unwittingly become self indulgent yet think the work is really good.

Both these examples highlight the need for reflection on action. To evaluate the work objectively with a clear head and an analytical mind. This can be done by a single person but can work especially well with a very small group. Here again knowing and understanding what was trying to be achieved and being clear on the focus of the work is crucial.

Applying agile working methods to multidisciplinary design practice and education;

At the core of this agile working method is the importance of working quickly. There seems to have been a change in the way students work. Computers have become more of an integral part of the design process; this has affected both the research and practice stage of design projects. With Internet based research, searching can lead to a group of students coming up with similar research. In the practice based work similar narrowness can occur where the software it takes to the students and dominates the visual language of the design work.

Using a computer is not a problem but it can be when the entire source is coming from this tool. Too much time creating work on the computer can end up with the student overly focusing on this one tool this time element can be tackled by being more agile working more quickly almost limited time on the computer and be more beneficial to the design process.

Seeing the computer just as tool and one of many sources can help a student access other tools and other sources. This will help them to come up with more original unique and personal design proposals. This will come with some negative aspects though it will cause some insecurity as coming out of the comfort zone of just one source will sometimes raise more questions and make the analysis and reflection of this material more lengthy.

One of the key areas of the design process; the need to experiment and take risks could really be helped by using agile methods. By constantly looking for new opportunities and new ways of working this experimental approach to design can be accessed. These approaches to working agile methods need to work definitely at different stages of the design process. At initial stages of the design process the agility should look for opportunity from all areas and look very widely. However during the mid and final part of the design process constantly looking wider for new opportunities would be inappropriate. Instead at the mid point where a second and third stage prototypes are being made the agile methods need to be used to solve problems. For example when a tool for cutting does not appear to be working looking widely and thinking laterally for different ways of cutting or different tools or perhaps substituting different materials that can be cut instead.

EXAMPLE 1: AGILE METHODS LEADING TO INVENTION, EXPERIMENTATION AND REFLECTION.

The 1896 Olympics animation featured towards the end of the film has the Olympic runner entering the Greek Olympic stadium with the crowd cheering "Hellene! Hellene!" The scene was to show this from the runner's point of view. The camera was to show his view of the tunnel, as he is about to enter the stadium. Having experienced the moving camera sequence in Fritz Lang's "M", the project team was keen to have a moving camera travelling through this scene. A high quality DSLR was chosen for its exceptional HD video quality and yet very small size. Connected to a small homemade Dolly made out of a wooden plank and small castor wheels. Some quick tests were made using the DSLR dolly unit and props easily to hand.

With an understanding and a need for speed this first test or prototype used the underneath of a dining chair to simulate and approximate a tunnel. Two things were being tested; the view of the makeshift tunnel and the movement of the camera. The footage was played back and reviewed on the medium sized screen on the back of the camera and then on a larger computer screen. This enabled us to evaluate both the scale and proportions of the makeshift tunnel and the appropriateness of the homemade Dolly. This footage looked very convincing and had a degree of cinematic sophistication that allowed this prototype to inform the construction of the tunnel itself. Having understood that many film and television sets are often made to a surprising low quality when viewed by the naked eye yet look very convincing on camera there was no reason to be concerned about sophisticated model making of the tunnel.

The tunnel itself was intended to have the sound of the crowd depicted through moving animated lettering. Being aware of the possibilities of rear projection and of the potential of flexible Poly -vinyl sheeting that had been seen in a local art store and realised its potential as a projection surface. Construction started on the tunnel using this material with 5mm foam-board as main structural support at either end of the tunnel. A variety of quick prototypes were made and tested moving the camera through the tunnel. After quickly evaluating this footage the team could tell that the tunnel was not tall enough to show its curved qualities, as the camera was too close. The tunnel construction was quickly re-adapted, raised higher film tested and evaluated.

The animation projected on the back of the tunnel construction also used agile working methods. Traditionally animations would be rendered out as a QuickTime movie and then projected. Realising this would need to quickly adapt and change to fit the tunnel construction the team discovered that they could play back the animations without having to render a final movie by just playing back directly from the animation timeline itself. This allowed the movies to quickly change and adapt and tailor make the animations to fit the tunnel construction rather than re- render a new animation each time.

AGILE REFLECTION IN PRACTICE

The original intention was to have the animated lettering "reversed out" with white lettering on a black background. When filming with the moving camera underneath the projection it was found to be very difficult to get the exposure correct on the camera and still have the lettering legible. Several solutions were tried but none solved the problem. It was realised later that the team were too fixed on one way of working.

Luckily the team were forced to reflect on the animation approach. They had to stop work for that day. After stopping work and discussing the problems amongst the team they realised how exposure critical the camera was. Realising that the camera had reached its limitations the animation would need to change. The reversed out nature of the lettering was actually the problem for the camera. The solution was to change the animation from a negative image to positive. A white background with black animated lettering was the solution. Then the exposure settings for the camera were not so critical compared to reversed out projected lettering and the camera exposure could be more finely adjusted throughout the shot sequence.

Making this change solved the problem very successfully and demonstrated very clearly the need to make quick prototypes that were easily adapted and most crucially the need for rapid and timely reflective on practice for first and second stage prototypes.

#### EXAMPLE 2: AGILE PRACTICE AND LEARNING NEW WORKING METHODS

Having seen a recent music 2012 music video; Kate Bush "Lake Tahoe" which featured contemporary live action shadow puppets it was realised the potential of this method for the Olympic project and the marathon runner as the central character. The team had no previous experience at all of making or performing with shadow puppets and had to seek knowledge in this area. Again using agile methods it was not too concerned with the quality of its first stage prototypes. Several useful videos on You Tube were found that showed how to easily and simply it was to make a very basic shadow puppets and theatres. This enabled the team to make first stage prototype quickly and evaluate them through filming. The shadow puppet theatre did work convincingly yet the figures were lacking believable movement.

Making agile method prototypes for new ways of working

Running figures

These very first simple shadow puppet figures were made to move using very basic supports made out of drinking straws. Cameras were set up in front of the puppet theatre linked up to a large TV screen. This enabled the puppeteers to see immediately what the camera was seeing. Whilst these first stage prototype figures had a sense of movement and energy they were not going to work for the animated feature as this was going to focus on one person; Spiridon Louis the winner of the first Olympic marathon in 1896.

As the main scenes were going to focus on one runner he had to have a convincing running action, the team tried out more sophisticated jointed figures but were struggling with the mechanics and the materials being used.

These second stage prototypes worked better using metal supports and more sophisticated jointing but the team needed to seek some expert advice. The team had a couple of meetings with a professional puppeteer based at a UK University who showed a plastic sheeting that he had used for shadow puppet figures. Two things were significant; the plastic sheeting immediately looked more effective than the black paper and was structurally more rigid. Also he had used Velcro on the figures to connect supports where the team had been using Gaffer tap before.



Figure 3; Puppeteers live TV and Camera Set up

#### AGILE REFLECTION ON THIRD STAGE PROTOTYPES

Using this new material and the Velcro attachments to metal rods allowed much better control. When comparing the Video footage between the first and second prototypes and the current prototypes it was clear that this was a big improvement. However the running action was still not as believable as intended. Through researching into current and past shadow puppet practice it became evident that the running figure was seldom used and when it was the legs were often working in a very simple swaying way.

This raises the question that the 1896 Olympics project may be doing something new within the field of shadow puppetry. This quickly allowed the team to focus on the movement of the legs themselves. The current prototypes had originally focussed on the mechanics of the puppets legs themselves but then quickly realised after seeing other puppet methods used in productions that a different approach was needed. The emphasis now being on how the puppeteers control rather than the leg mechanics could make a believable running action. Again using the method of a camera in front of the theatre screen showing live footage on the large screen the puppeteers could immediately see the movement of the legs. This immediate feedback for the puppeteers allows small changes to be made with significant effect. As these subtle movements were so important for a believable running action it was clear that more than one puppeteer working on the running figure was needed. Puppeteers had their own puppet leg to control. Using a number of rehearsals and takes a more convincing running action was achieved.

### ***Reflective practice***

This approach to first second and third stage prototypes relied heavily on agile thinking methods as well as reflection in action and reflection on action. The puppeteers' watching their puppet performance live on a big TV screen as they perform is a good example of reflection in action. On the video footage soundtrack it is possible to hear the puppeteers reflecting in practice; communicating to each other about the effectiveness of their control. As they learn and discover how to co-ordinate the figures limbs and notice subtle adjustments in the angles of the legs and feet which appear to be crucial for a believable running action. The puppeteers also quickly reviewed the recorded footage to confirm their live reaction decisions and to establish the most important working methods for the next takes.

This enabled planning forward for a sequence of further tests. This reviewing of the video footage after performance and evaluation of different takes and sequences are good examples of reflection on action to confirm the teams' next strategy.

## **Visual and motion language selection and reflection**

### **Agile Photograms**

At the beginning of the planning process for the animation it was the intention to create a range of animations from different periods of Art and Design history. The 1930s work by the Bauhaus artist and designer Laszlo Moholy-Nagy seemed to have some potential. Looking through a book of Moholy-Nagy Photograms it was possible to see how this visual approach could be used to represent some of the Olympic disciplines. The strong sharp triangular shapes that Nagy had produced could be used to visually represent a Javelin flying through the air. His circular shapes used in some of his Photograms could be used to visually represent a Discus in flight.

A number of quick Photograms were made by moving the objects across and then exposed on the rectangular photographic paper creating a number of frames for a stop frame animation. Scanning the photographic photogram into a digital video software programme quickly animated these. On reviewing these animations as a moving sequence it was surprising that the Photograms from the circular images representing a discus were quite beautiful as a series of individual stills but in the moving format of QuickTime movie they were surprisingly dull and did little to suggest the kinetic movement of a metal object through the air. Conversely the team was more surprised by the Photograms of the Javelin sequence. As individual stills they were less aesthetically pleasing to the eye but when combined into a QuickTime movie they had significantly more dynamic movement than the beautiful discus stills.

### ***Stills and moving image***

One thing was clear that what worked as a still did not necessarily work as a moving image it appears that subtle movement is not always going to work and that it is important not to discard or pre-judge the less attractive but more dynamic kinetic images. Certainly it is not possible to always predict if a good still will make a good moving image.

This difference between stills and moving image surprised the team. When looking at stills made from moving image sequences for example the photographic tile sequence storyboards from the 1995 film "Seven" as shown in page 38 of "Type In Motion" by Jeff Bellantoni and Matt Woolman these images demonstrate the sequence

clearly. Especially the moving scratched lettering but the difference is here that these are mostly lens-based shots not abstracted Photograms. In addition the sequence is so well known and has been viewed so many times that it is easy to attach the memory of the moving image to the still that we are looking at.

In reflection when thinking of how television and some cinema productions approach making images and stage sets which tend to be bold and sometimes brash and this may be for the same reason that they find that subtlety does not always make for good moving image.

## Conclusions

### *Advantages to agile working methods*

One of the advantages of working quickly has been the ability to produce a number of different sequences this has allowed the team to use reflection more effectively. Creating five approaches as short sequences enables comparative analysis with a greater scope of projects to compare and contrast.

A second advantage to the agile working methods has been the speed in which they have been produced allowed the team to be more objective when deciding between different sequences. If the sequence has been made quickly it is both easier to evaluate as the team are not so visually immersed in the project but also not too heavily attached or committed to design they have been working on as less time has been invested in it. This also allows the team to make changes and adaptations quickly to props and sets that have been made simple and quickly.

### *Agile methods and other disciplines*

It is the intention in this paper to show how this project and its design methodology can perhaps contribute new knowledge for both practice and pedagogy in this new and expanding area of Motion Graphics.

Because of the multi disciplinary approach to the project this could transfer to other practice based disciplines. One thing that appears to be common across many Art and Design teaching discipline is a students tendency to spend too much time focussing on research. Not starting to create prototypes and tests early enough in the design process. Often this early stage tends to focus on using the computer extensively, which may also be part of the problem as it is difficult to create something rough and approximate.

It is difficult with a computer to make something that is half realised. Drawing in a sketchbook can be much more approximate and be the seed of an idea. The act of drawing is less conscious and controlled. Whilst drawing other ideas and adaptations often come to mind leading on to other prototype plans.

When creating a line with a computer it is very definitely a firm visual line that in some ways is too strong a commitment too early. Perhaps this contributes to the students reliance on the computer at an early stage combined with their often computer based research which can often lack in primary research. The main reason seems to be a lack of agile thinking with a real need for a breadth of primary sources combined with a series of quick first stage prototypes. In some ways this relates to the act of drawing from observation where it is common to draw multiple lines before fully understanding how to draw a shape or outline. Trying to draw with one clean line

before the draughtsperson fully understands what they are doing can be a difficult strategy.

This method of working quickly and producing multiple prototypes can relate to reflective practice as highlighted by Donald Schoen in 1983. When drawing at early stage of a design process it is common to be reflecting in practice. Whilst drawing a line an artist is also evaluating its effectiveness sometimes stopping when they realise it is far from working or continuing when it is near enough and then starting another. This method has been used many times during the 1896 Olympics project initially evaluating sequences either in camera or watching puppet figures live on screen as they perform.

### *Speedy and Agile reflection in contemporary practice.*

One of the significant factors of the new technology and digital cameras has been the increased ability to reflect in action compared to Muybridge and Marey's work in 1890s and Fritz Lang's work in the 1930s. They would have little guidance or feedback from their camera work until it had been processed. At best they would have had to wait a day to view the work they had produced. Yet in this project work could be reviewed live as it was being created and then immediately after replayed and analysed in great detail.

### *Multi disciplinary work and Agile thinking methods for other Art and Design disciplines.*

This practice-based work has revealed a lot of surprises that are specific to Motion Graphic Design practice. The difficulty in evaluating the Photogram stills compared to when they move in a sequence could be distinct from other disciplines in this instance. But some of these discoveries can be transferred to other disciplines in particular Multidisciplinary practice specifically.

The Target method can be a very effective way of helping students or designers get down all their ideas on paper. But then be able to evaluate and place each concept or piece of research in one of the central circles of the target. Finding what is central to the project and what is on the fringes is ideal for the early stages of creative project management- being able to see "the wood for the trees" and giving focus to a project.

Agile Thinking from Bricolage has been a key methodology.

This can be applied to all stages of the design process, research, prototype creation, and idea generation and also to the timing of reflective analysis. Quickly making work and quickly or timely reflection.

The agile methodology has been crucial in developing a range of prototypes. The evidence from these projects tells us that prototypes need to start very early on in the creative design process. A core element of being able to seize opportunities is the need to be agile. Agile in two senses firstly not to become too immersed in any one way of working and secondly to keep looking for opportunities and new ways of working.

It seems there is a connection between simplicity and agile thinking. Certainly when agile thinking access's simple solutions the success rate is high.

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