

Has the digital pixel taken over traditional printing methods in the 21st century?

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Introduction

The focus of my discussion is to evaluate through artist experimentation and research, whether the traditional methods of print are still valued in the 21st century; increasing digital technology has had a huge impact in the print field and its traditional processes.

Printmaking as an art form has been consistent for centuries however recent modifications have begun the question of how much longer will it be a viable art form?

This independent inquiry will examine the history of printmaking and its evolution through the years with the development of print processes leading to new materials and a move to create new print process. In contemporary society digital technology has evolved and increased in popularity within the art field, also within the printing process. The incorporation of digital print has altered its nature as an art process, and it can be questioned whether this evolution of the print process has removed traditional methods. It is important to firstly look at the history of print to understand what traditional methods of print are and how they now compare in a contemporary time with the advancement in technology.

Chapter one will provide a brief history of the print process, from its birth in China in 6th century, to the development of lithographs and finishing with screen-printing techniques within the Pop Art era of the twentieth century. The objective is to determine what a traditional print process is and how this was created.

Chapter two will examine the impact of digital technology within the print process during the mid-19th century running through to the 21st century, understanding how in a short space of time digital technology has advanced at a fast pace also looking at the role it plays in the emergence of new techniques within print. It will evaluate whether digital modernisation of

the print process has replaced more traditional methods and if these are still valued in contemporary society.

Chapter three will provide an analysis of the print process present in contemporary society, through comparing traditional methods with the new digital age. Through examining consumer and artist's perception it will investigate the role that print has and whether these two independent processes can work in unity or whether digitalisation will make traditional methods obsolete. As a fine art practice, it is important to acknowledge the artists that use the practice to get an understanding of the change that has developed through the process.

Chapter one

During this I am aiming to discuss the historical role of traditional printmaking and its origins focusing on the contributing factors that made it a viable source of design and how this has become such a widespread practice in fine and contemporary art within modern day society.

Printmaking is a centuries old process traced back to China in the 6th century where the first developments of Woodblock printing were becoming developed. This would be known as the first process, taking an engraving approach with carving into wood. The original use for woodblock printing was to print text and manuscripts for religious means, becoming a popular method of communication to a mass audience and creation of reproductions. Woodblock was used for many years in China and it wasn't until the 15th century that woodblock print was being used in European countries. While being developed by artists in Europe, Woodblock print came under the name of Relief print which is the technique of engraving into a plate, the traditional method used for creating this style of print. The examples of print highlighted have developed the process into what it currently is within contemporary society. Woodblock became a practise in the 15th century with the development of papermaking only now reaching Europe, allowing the print with paper a new material. During the same time that the printing press was invented by Johannes Gutenberg along with the individual metal face press, which transferred the image or text, using rollers to apply pressure transferring ink from the plate to a material, only used in Europe. This was an advancement for its time being the first piece of technology used to aid the printing process, creating another method of transferring a print. This is an example of a print process that has moved through centuries and has developed change within a current

period, adding new methods to already made process. In this century, Woodblock printing was still used for text and manuscripts, until artists experimented with relief print applying their art style to the plate. Wood still being the material used and artists were not craftsmen unable to use woodcutting tools, which would require a skilled craftsman to carve their image into the woodblock. This created a distance between the artist and the outcome of their print, not being able to engrave the image but rely on pure communication to create the image they wanted. Due to this problem, woodblock printing was not seen as an art practice as the artists print would be created by many people. Albrecht Durer is an artist known for his artistic impact in the medium of woodblock printing. Working with his father in a factory that produced woodblock illustrations for books, drove Durer to experiment with applying his art to the woodblock process. The outcomes of his woodblock prints revolutionised the process and took it further into becoming an independent art form.



Figure 1: The Assumption and Coronation of the Virgin

“Technically he brought the art of engraving to maturity by expanding its range of contrasts and textures, thus introducing a painter’s viewpoint into an art...” (The Editors of Encyclopaedia Britannica, 1998). Albrecht Durer is a known artist for his input to the development of relief print being used as an artistic means rather than it be limited to type. Durer was a German painter and printmaker, who created religious works, as well as portraits and self-portraits during the Renaissance period.

his evolution as an engraver and woodcut designer, which had been interrupted by his stay in Venice, took a diametrically opposite course. His graphic works became luminaristic and tonal in proportion as his paintings became linear and polychromatic; and his most famed, and indeed most accomplished engravings were made at a time – in 1513 and 1514 – when the production of paintings has ceased altogether. – (PANOFSKY. E, 1943).

It wasn’t until Durer used woodcut, showing that relief print can be used as a creative practice, producing originals and reproductions of artwork. Durer had created 15 woodcuts for the ‘Apocalypse series (The revolution of St. John)’ published in 1498, capturing a style that was influenced by his first journey to Venice. He focused on the lineal work to create depth and contrast to light and dark. Durer worked with the idea of filling the woodcut design with multiple scenes happening at once, capturing detail in every piece leaving no blank spaces.

In the same time as Woodblock progressed, a new printing process was created called Intaglio. This process would use lines scribed onto a metal plate; with the use of a burin, that would scrap into the plate allowing to draw directly onto the plate. The process of Intaglio printing picked up on this problem that woodcut created distance between the artist and the print, with Intaglio allowing artists to be able to complete the whole printing process and outcome. Intaglio would allow for the artist to draw directly onto the plate in the same way as using a pencil to paper. Intaglio has similar processes to relief print, the change being the engraved line inked instead where relief print the cut-out line would not be inked.

This was a big development as well as an improvement for artists; now able to create more refined and detailed pieces of art but also taking full control of the process. An artist that shows great skill in terms of experimentation within Intaglio print, with copperplate engraving was Martin Schongauer. He was one of the first fine artists taking on Copperplate engraving, applying his own style and developing the cross-hatching lines. Due to having a background of working with goldsmiths and silversmiths, this allowed for Schongauer to gain practice as an engraver to later then apply this process for creating art.



Figure 2: *Annunciation*.

“Schongauer could use parallel or intersecting strokes; making them denser or rarer, deeper or less deep, the artist could achieve a different level of intensity. That helped him to create tone effects and three-dimensioned figures.” – (G. Kislykh, date unknown).

In Figure 2, you can see the use of his cross-hatching being used within the design of his art work which gives gradual light to darkness, depending on the distance of cross-hatched lines. Copperplate engraving required great skill and labour, with the process requiring a lot

of different methods to create an outcome. Etching would be later developed in the 16th century which came under Intaglio printing with its similarity to copperplate engraving, the difference being acids and varnish were used on the metal plates to create better tone and depth to artwork. Artists felt more of a connection; with the materials, tools and acids becoming more available and etching became the preferred medium, replacing engraving. Artists used this process to reach a wider audience and publish their work, in addition to distributing their work it was also a means of preserving artwork and being able to reprint many times with the engraved or etched plate. An advantage for the process and why artists used this was being able to create editions of their artwork that would be numbered, as each print was original with slight difference each time the plate would be printed.

With Intaglio print taking affect and influence towards artists, new material was introduced in the 17th century used in the etching processes, known as Mezzotint. This acid was used to add tone to the design instead of the use of cross-hatched lines. Using mezzotint, several little lines would be created leaving a rough surface on the plate and creating an overall dense colour when ink was applied. Applying Mezzotint would allow to rub certain areas of it away, polishing them, thereby creating lighter areas against the dense darker ones. It would provide the soft tones of oil paintings, which was a way for artists to be able to recreate oil painting in the form of a print. The main reason for artists using etching to create prints, was to recreate photographic realism and this is being used more by contemporary artists. Within the same century another method was introduced to intaglio print called Aquatint, but mezzotint was still the popular choice and it was, not until the eighteenth century that aquatint started being used creating the look of watercolours. The same theme seems to run through each of the printing processes looked at so far, with the experimentation of artists, using new materials of their time and finding new and different outcomes. "Alexander Browne and Richard Thompson played a critical role in promulgating

mezzotint prints in England. They were the first to publish descriptions of the technique in English and printed large runs of mezzotints with distinctive quality.” – (Wooten. A, 2018). Artist Alexander Browne is known for making the use of Mezzotint a well-used part of Etching, creating an easier way of capturing tone and depth into a print without having to apply this using the burin. As seen in Figure 3, with the use of the acids leaving faint scratch marks in different directions, creates the tones, rather than flat plain backgrounds.



Figure 3: *Sir Peter Lely*

A new print process would be developed in the late 17th century by Alois Senefelder, known as Lithography, with the original purpose of printing music sheets. Ink and crayon would be drawn onto limestone with this process relying on the ink and water repelling each other; as the process developed the limestone moved to metal plates, allowing the ink to be directly applied to paper. One main advantage for using this process was that the artist was able to print fast, and colour was easily applied. Another advantage was that the artist was not limited by the size of the print they wanted to create and could produce large prints whereas

etching was limited. Artist Francisco Goya firstly stepped into print by creating and developing a series of etching, later turning towards lithography as a way of creating his art. According to the artist's first biographer, Laurent Matheron, 'Goya followed his own instinct and leaned the lithographic stone against an easel, 'as if it were a canvas'; using the crayons 'like brushes, [he] worked standing up, constantly stepping back and forward to judge the overall effect.' – (Gallego. J & Perez Sanchez. A, 1995). The statement above shows how this method of printing was more ideal for the painter type of artist allowing to capture brush strokes, without having to engrave an image into something that would require a certain skill whereas artists didn't need a skill to be able to produce lithography prints.



Figure 4: *Inferno*

Within the process of relief print and etching, the artist would have to print the engraved or etched plate in reverse whereas lithography made it easier for the artist, being able to print without reversing the image. With the use of colour being easy to apply in lithography, artists were creating more coloured prints, allowing for multicoloured prints instead of black and white. The reason for them applying colour was purely for commercial use and allowed the artist of any style to be able to apply this within their print. Previous print processes would take longer to produce colour having to use separate plates, whereas lithography

would print colour using a layer by layer system. Artists and creators used lithography to produce multiple prints because they could be produced at a fast rate and no delay through adding colour. If created for an advertisement piece or for events, this allowed them to be produced and ready for distribution within the same day. As well as this process being used for artistic value, it would later take the role for commercial use for it being the fastest method of print for its time. Henri de Toulouse-Lautrec an artist originally known as an oil painter who created poster like works, later went on to great success turning to the field of lithograph printing that was suited to his style of work. In 1892 when he first started working in the practice of lithograph, he was able to create series of his works in his poster like style, as lithograph printing was suited more for commercial and to apply colour.



Figure 5: *The seated clowness (Mademoiselle Cha-u-ka-o)* (from the series *Elles*)

Along with lithography, a new commercial process was created in the 1950s being known as screen-printing, being used as an advertising and commercial process as well as creative prints. Lithography known for being the best and fastest in reproducing multiples of artwork, screen-print had taken on the same role of being able to create fast and accurate prints of

their work. Screen-print also allowed the element of photographic images and coloured prints, with bright bold colours being applied. Mesh screens were used in the 19th century that turned screen-printing into a much easier process with the material being more available; at the same time the process became popular within the art field as well as commercially. Screen-print uses silk mesh stretched over a wooden frame, pushing the ink through paper stencilled areas using a squeegee, transferring the image onto paper. The reason for its name was due to the different materials that could be used as a screen such as nylon and metal; silk mesh can also be used however this comes under the name of silk screen printing. This printing process was predominant through the art movement known as Pop Art, becoming particularly famous through artists such as Andy Warhol. He commonly known for his input within the field of screen-printing, making his studio into a factory, creating multiple screen-prints of his artwork, taking him away from the traditional art form of pencil or brush instead using the squeegee as his brush.

“ While Warhol logically took advantage of the capacity of prints to create identical images, he also used screen-printing to subvert the conception of a printed edition by making individual prints unique, just as he used silkscreen on canvas to make paintings appear reproducible.” – (Bernstein. R, 1989).

The author, explains how Warhol experimented massively with the screen-printing process and its ability to incorporate images like photographs, later creating individual prints with each one being unique and later being able to recreate identical prints of the image. He made it aware that the process could still be used to create original one-off pieces, with each time it being printed it would differ still with the element of it being a reproducible process. Screen-print allowed Warhol to create prints using photographs that would replicate the look of a paintings, by using the silkscreen techniques involved in the process.



Figure 6: *Untitled from Marilyn Monroe*

Warhol was known for creating many well-known prints, mainly of celebrities with the use of his Pop Art style of bright colours, applying them to the celebrity images. He would use objects or photography, something that was already made and re-use it to create a new piece of art. Figure 6 shows photographic realism that can be applied within the process that allows for alteration of a photograph, adding an artistic painted approach to the image.

Chapter 2

This chapter begins by introducing digital technology that is being used within print, in contemporary art. To consider the question of whether traditional print is still valued in a digital era or being replaced, it is important to first look at the types of digital technology that are being used in the field of print and by artists to determine whether it is replacing traditional methods.

Digital technology was firstly introduced in the mid-19th century, with early forms of digital technology being created and later becoming popular in everyday lives with the help of creating work and everyday tasks. This being a process that has only been around for a short length of time, created during a contemporary period. Digital advancement started changing the use of traditional methods in terms of communication, with the writing of letter being posted to someone, computers with digital software and the internet made it easier for a message to be sent and received straight away. With the evidence of digital technology being a fast process and allowing, it made sense for artists to incorporate these technologies into the printing process. Traditional print techniques were very time consuming, labour induced and often required skills within the field. The traditional element within print was the ink and press technique that was applied in most processes which had to be included for it to be known as a printed image. With the incorporation of digital technologies, it would allow for artists to create in the same traditional method but being able to produce work at a faster rate with added perfection. There are many forms of technology that can be used within print being the computer, laser cutter machine, photography and digital software which are just a few. Photography was an important element in terms of advancement with technology, with a device known as a camera was

able to capture images and apply them to chemically sensitized paper. Exposing the image to a photographic negative, positive transparency or a digital image that would require a digital exposure unit such as the LightJet printer. This takes the same principle as an artist capturing a piece of scenery that would be drawn and then engraved or etched onto a plate that would also be applied and printed onto paper. The same principles applied to both photography and printmaking allowed for both processes to collaborate, creating new methods of being able to print an image. Comparing to etching that used chemicals and acids to determine the outcome of the final print, the same was applied with photography with the use of working in a darkroom with photosensitive chemicals that the paper would be dipped in to apply the photographic image. Printmaking and Photography are two different processes of art with photography not originally seen as art until it was applied into the field. The similarities that Photography and Printmaking have it what has led to the merge of both processes, creating Photo chemical printing which uses photo-reactive resist that would be applied to the metal plate and then etched. In a later process known as Screen-printing, Photo emulsion is applied to the screen with the image placed on one side of the screen and exposed to UV light that allows the image to be transferred onto the screen. Digital and Photography are two elements that have been incorporated into printmaking that has allowed for new methods and creative outcomes that apply to a wide variety of artists and their styles also, gaining the attention of commercial use with the digital process allowing for faster production of prints that can be printed with accuracy. From these new inventions and experimentation within the boundaries of printmaking, Otto Beckmann worked with creating prints as well as leading onto photographs and films later becoming the pioneer of computer art with the creation of a computer that was used to produce art. With his interest in making unusual photographic contact prints, he would also use traditional processes that were used within his way of creating. Beckmann was not limiting himself in terms of the materials he would use, experimenting with other digital technology like lasers and photographic development processes, combining then with the variety of

traditional plate-making techniques within print. “Otto Beckmann’s interaction with his computer was highly personal. He used it in isolation in his studio; the computer was a special tool—an extension of him” – (Oberquelle & Beckmann. O, 2008, p. 29). Beckmann explains that the computer was a special tool to him allowing him to extend within the outcomes and production of his artwork. Working with his son Oskar Beckmann, alongside with other artists and engineers, they created a computer that was used purely to produce art as computer technology was scarce and required special access to the machines during 1960s.

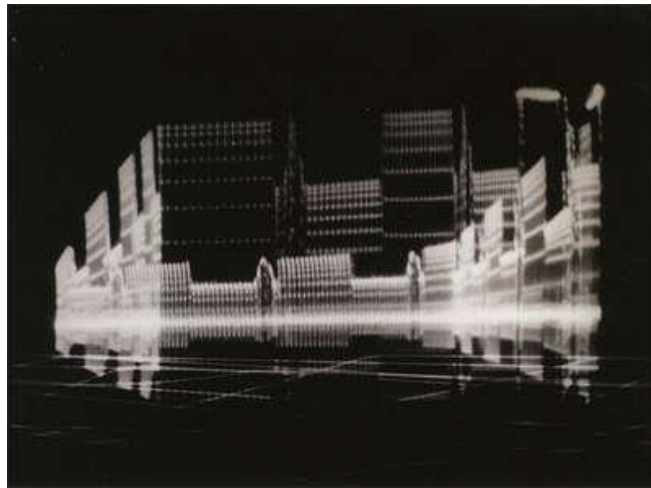


Figure 7: *Untitled*

Figure shows an example of the use of the computers that allowed to digitally manipulate the photographic image, by using computer affects and software to create changes to the original image producing a style of the artist that would later then be printed. The computer can run along two different ways for printing which is the computer being used as a tool or the computer creating the digital image and using digital machinery to then print the image to paper.

In the 1970's when laser technologies were introduced, there was a form of technology that was integrated into engraving. It reads a design from a computer and laser engraves the digital image onto a chosen plate, taking away the use of engraving by hand. The use of the laser cutter was mainly for industrial and commercial printing as to capture the same engraved look but able to produce a mass amount of prints at a faster rate, giving accuracy and perfection. This was not as popular with artists to incorporate the laser cutter into their practice as it takes away the creation and added details that can be made once crafted by hand. Although it was not popular as a choice, there are still artists out there that use the laser cutter and other similar machines to produce prints. More artists like Patrick Collier, well known for using screen-printing to create prints, later turning to the raster laser engraver to create his linoleum prints along with the use of digital software programs like Adobe Illustrator. With the digital imagery being created on software programs like Adobe or photographic images being uploaded to a computer, the laser cutter can read the image from the computer and translating it onto a plate the same way as it would be engraved or etched only it is done by a machine. Although the machine is engraving the linoleum, it's still following the same traditional method of engraving into a plate and will follow with the plate being inked and pressed, with this artist using his hands to press the plate to paper.



Figure 8: *Untitled*

Form the figure above created by Patrick Collier shows the use of halftone pattern which is loads of little dots, that he developed with the experimentation of using laser engraving. Using this halftone patterned allowed for greater detail in the image and applying light and dark tones, without the separation of different plates. With screen-printing to apply multiple colours or tone, the design would be separated into colour layers or stencils being applied onto individual screens. "A fundamental aspect of my practice is exploring new ideas and ways of making. I began experimenting with laser engraving as an alternative method of reproducing the work I make in Adobe Illustrator". – (Collier. P, 2012). This statement by Patrick Collier shows that entering a world of digital technology where computer software programs have become a platform for creating digital artwork, another tool needed to be applied to help with the fast process of digital technology. With the incorporation of using the laser engraver to apply the digital design to the plate with precision and accuracy with the computer able to translate the CNC numerical formula to another machine being able to read the design exactly. Recreating the digital image by hand engraving would allow for slight changes as we are unable to recreate the design in its complete digital format which explains a reason for allowing the incorporation of digital technology to help keep the printing process in with the current demand of digital imagery.

In the 20th century the development and advancement in technology has become part of our everyday lives, creating a digitally mediated workflow as well as entering the field of art. Computing and Digital printing technologies worked their way into traditional printmaking methods that later led to an all digitally print process. During the same time desktop computing became more accessible as well as the inkjet printer being the digital printing press. With this increased interest and easy access to the machines, allowed for the growth of a new process creating a platform for digitally produced prints that would become part of the fine art printing practice as a new printing method. This form of printing allowed for any

artist that doesn't have a background in printmaking to still be able to print their artwork to produce multiple copies with only having to understand the digital software platform as the digital printer would then do the printing for the artist. With the younger generation now entering the world and growing up around technology is a reason for why digital has been incorporated to everything we do whether it be for business or a creative side. Within school, college and even universities incorporate digital workshops that teach students to work on computer software programs, which creates a new way of finding different styles and outcomes of creative work. With the industry we are in now, clients or businesses would prefer the digital image as it can be applied to many different products, packaging, posters, at a faster rate. Even traditional artists that would work in traditional methods like painting and pencil drawings would later be scanned into a computer that would then be turned into a digital file that would allow the image to then be printed digitally. From a personal experience of printmaking I have noticed that the incorporation of digital technology has become a normality but also works with the learning of traditional techniques. Printing studios have now increased in size with the incorporation of digital machines that help with printmaking that help with the desired look and outcome that the artist requires. Andre Ribuoli and Jennifer Mahlman-Ribuoli, founders of Ribuoli, own their studio used as a work space for themselves and other artists, has grown and doubled in size compared to previous print studios. With the incorporation of CNC machines into printmaking, the studios have also increased in size but also allows to use more than one machine to produce a print leaving room for experimentation for the artists.



Figure 9: *Only this and nothing more*

Chapter three

The last chapter will investigate why traditional methods are still valued within a digital society, with examples from artists that continue to use traditional processes and why they chose these methods instead of using digital technologies. Also looking at the other side of the argument in terms of the benefits and why artists are incorporating and experimenting with digital technologies to produce new ways of printing; comparing digital incorporated prints to the completely digital made prints and whether they are both valued as an art practice.

Looking at traditional printing methods of print, these principles are always present even with new developments in the process. It was due to the experimentation within the print that allowed for artists to apply their own style to the printing process and be able to incorporate new materials and tools to create new ways of printing art. Experimentation is something that artists have always incorporated into their work being able to then find a style and a way for creating or producing their artwork. "As always, inspiration is taken from diverse traditions and today we can see many printmakers mixing up techniques and materials from both Western and Eastern practices in order to create the effect they want." – (Hager-Suart. T, 2019).

The author explains how as artists we take inspiration from previous traditions which is why they still appear even in contemporary fine art practices in the 21st century. This shows with artists using these traditional techniques and incorporating new materials or tools in order to create new outcomes of producing creative prints.

“When you are printmaking, it’s not only the final product but whole process and the experience that matters. It engages an artist’s sense of work, which certainly makes print making a beautiful experience.” – (Anum, 2019). A main reason for artists continuing with a traditional approach while in a digital era is for the way the process allows for full engagement with the creation of the print, giving a sense of excitement and enjoyment with the print being produced by hand. Another artist explains “ I enjoy thinking with my hands and handling different textures, from knives, pencils, and erasers to the slippery paint I roll out on glass plates. After this long and tedious process, the print that emerges is a special reward.” – (Kazmierczak. E, 2010). The traditional way of printing offers a sense of achievement and the reward of the print pays off for all the hard work gone into the traditional process to make the print, getting a greater sense of enjoyment from the print.

With the printmaking process being known as an experimental practice, it is not surprising that digital technology has been incorporated into the field adding a new tool. “The ability of this challenging, diverse and fertile field to absorb developments in concept as well as in technology, lends it a self – rejuvenating dynamism.” - (Geary. A & Catanese. P, 2012).

This suggests that with the incorporation of technology, it allows for new opportunities and outcomes allowing artists to find alternative ways to produce their work, creating a different style altogether that traditional processes don’t offer with these methods. It is stated that printmaking is a way for artists to be creative by engaging with the process whilst being able to find new ways of creating different prints within a printing process. Artists are creating new techniques using technology as a tool whilst traditional methods are still being used to create a print. This shows that digital is not replacing these methods but instead incorporated within as an experimental practice. CNC (computer numerical control) created

digital imagery through pixels that has extended the practice of printmaking allowing for new opportunities that work with digital and traditional techniques.

A key element of post-digital printmaking is its fundamental integration with traditional analogue plate to press transfer techniques, which therefore expands the core medium of fine art printmaking by exploiting contemporary technologies while retaining an innate commonality with traditional ones. - (Geary. A & Catanese. P, 2012).

This demonstrates how the integration of technology is used alongside traditional techniques, commonly seen within fine art printmaking in contemporary society. With this being evident, it explains that traditional methods are still present and that digital technologies are only used alongside the printing process. With the incorporation of digital technology old methods of printing can still be well known and used in the 21st century, bringing old methods into the modern era. Traditional methods of creating print are still applied with the image being engraved; the difference is that technology creates the engraved plate instead of it being crafted by hand. Experimentation by modern artists, has in effect kept the printing process alive; using initiative with new materials and technology these can be applied to traditional processes for new creative outcomes. Digital technologies can be traced through the development of printing methods from the 19th century to the 21st century, with digital machines and advanced technology being created at a fast rate. With digital technology being incorporated into modern life, it created easier ways of working and a means of mass communication; this was the same principle that original print making processes were developed for and an advancement in technology for its time. By using digital technology as a tool, coinciding with traditional methods, allows new artists to experiment in this field and keeping the print process an active fine art practice. With its incorporation into contemporary society and digital technology, most artists are used to these forms of digital technology, which with the printmaking process being an experimental and open practice allows for digital technology to be experimented with in the printmaking field.

Computer technology started in the 20th century, continuing to develop at an increasingly rate with the advancement in technology making the computers performance a higher quality. The computer would later play an important role in the creation of digital art with computer software allowing to digital imagery that manipulates the look of a painting or drawing. These digital images can also still be applied to traditional printing processes like copper etching or engraving, by using a laser cutter to transfer the image. One advantage of using technology within the printing process is for effectiveness with each print being identical and this makes the traditional process quicker taking out time consuming elements. When creating a digital image through a computer, the image can be printed straight from the computer with the use of a printer. This being a digital machine that can read numerical pixels which would be present in a digital image, through to the printer allowing for the image to be printed onto paper.

"Digital print will be everywhere in the future. Digital printing will not just be used for commercial printing; it will be used for publishing and packaging. I believe that digital presses will be developed to go after the packaging market - the personalisation of packaging will be huge in the future. Digital presses will also become faster and be designed to handle more types of printing," – (Baker. C, date unknown).

Here Chris Baker who works in the field of digital printing, with advanced technology specialised with printers, explains that digital print is used mainly for commercial purposes going into the field of advertisement. Although artists work can still be present on commercial prints, the process used for commercial aspects would be the digital print process. Digital printing is used purely for its fast production rate and capturing identical prints, which is what commercial businesses would look for. In contemporary society, we look for perfection which is why digital print would be ideal to use for a commercial aspect.

This divides digital printmaking into two categories with one, artists using digital technology's as a tool within and already traditional printing process allowing for new

creations and methods of working in a printing process and the second being the completely digital print that would be created digitally as well as using technology to print the final artwork.

Conclusion

Researching into traditional printing and digital technology within printmaking as an art form, shows that both these methods can be combined creating hybrid techniques, creating new processes due to the involvement of digital technology while still incorporating traditional techniques. Due to the print process being an open practice and artists being experimental with it shows collaborations with new materials from the 21st century like digital technology, with the element traditional methods still present. This takes away from the question of digital technology replacing traditional methods as they are still being used and valued by artists from a creative's perspective. It is due to the incorporation of digital turning print into a modern practice as well keeping printmaking as an art practice for new artists. From the beginning of printmaking to modern printmaking, there is evidence of new materials and tools being added to the processes due to the advancements through centuries that allows artists to apply, creating new outcomes in the printmaking practice. There are two sides to the argument that show some artists continuing to use traditional methods for being able to take full control of the process and depends on the outcome of the final print. Printmaking has always had a commercial use from the beginning with the publications of books and poster which is why in commercial use today digital printing is the preferred method as it offers perfection and fast production of prints creating multiples in a short time. Traditional processes are very time consuming and don't always offer similarity within each print, creating one off prints. It shows that printmaking has divided into two

categories with commercial printmaking that prefer digital printing and fine art printing with practicing artists using these processes to create works of art. This doesn't mean that digital technology is not used within fine art printmaking as it is evident that digital elements are present in terms of experimentation with traditional methods, adding new tools to create myriad processes within print.

Looking at the argument presented and my findings, it seems to be the determination of an individual artist whether traditional print methods are valued with each artist having a different approach to the process. As the printmaking process is an open accessed process that allows for experimentation and collaborations, is why digital has fallen into the process. Printmaking has survived for many centuries and is still going strong as a fine art practice, the reason being that the printmaking processes can evolve into new centuries and work with the advancements that we face.

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