From Tradigital to Shinkyuu Art: A fusion of analogue and computer-generated art summoned through the colour blue

By

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Declaration

I certify that this exegesis:

1. does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and

2. to the best of my knowledge and belief, does not contain any material previously published or written by another person except where due reference is made in the text.

Signed,

Annie Nguyen

Acknowledgments

First and always foremost, I acknowledge the Aboriginal and Torres Strait Islander peoples as the traditional custodians of Australia, where sovereignty was never ceded, extending my respect towards all Elders past, present and emerging. I specifically acknowledge and pay respect towards the Kaurna people of the Adelaide Plains, whose land I resided upon while writing this exegesis. I would also like to acknowledge the Gadigal of the Eora Nation in Sydney, where I first experienced foraging for pigments.

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Glossary

2-Dimensional (2D): An object or image created in a flat plane possessing height and width, only. Usually, the work is intended to be seen from one perspective.

3-Dimensional (3D): Object or arrangement of objects created possessing height, width, and depth, that is intended to be viewed from a range of viewpoints.

Aobani-gami/Aobanigami: (Also sometimes aobana, aigami and aobanagami) Japanese for Dayflower Paper, the paper carrier used for Asiatic Dayflower pigment.

Anaglyph 3D: A 3D effect achieved by using chromatically opposite, filtered coloured images.

Augmented Reality (AR): A combination of real and virtual images or objects, seen and interacted with in a real-world environment through the use of computer-augmented platforms.

Art Study: aka Studies. Preparatory work, including exploration of materials, sketches, and notes. Studies are used to explore ideas and address complications that may occur, to plan the framework of finished artwork.

Autoethnography: A qualitative research method using self-reflection through writing to explore individual experience as it correlates to a wider set of cultural, social, and political contexts and understandings.

Binder: A substance used to mix or adhere pigments or dyes together, or onto surfaces.

Contemporary: Something that is occurring in the present. When referring to 'contemporary artwork', it means artwork that is new and being created presently.

Credibility: Used in arts practice as research—a study that is trustworthy and believable.

Data-Bending: To purposefully corrupt digital data, creating visual flaws in an image.

Digital Art: Computer generated images, anything involving the use of digital technology

Dye: *(See also Lake Pigment).

Fusion Art: The artwork developed from Fusion Media (see Fusion Media).

Fusion Media: The synthesis of multiple (two or more) distinct media, processes, and techniques.

Generalisability: How the findings from a study can be used and extended to situations outside of the research.

Glitch Art: The name for artwork using Data-Bending (see Data-Bending).

Hybrid Art: The artwork developed from Hybrid Art (see Hybrid Media).

Hybrid Media: The adapting and merging of an older media with its newer digital media processes, characteristics, and techniques.

Interactive Art: Work that allows audience members to engage and/or participate in it.

Lake Pigment: An organic pigment in liquid form, made from dye mixed with a binder.

Mixed media: A variety of media used in combination. In visual arts it relates to traditional media or materials. In Digital Art it relates to digital media or techniques, and can also be referred to as "Multimedia" (see below). In this document, mixed media refers to both visual arts and digital, and them in combination with each other.

Multimedia: Generally relating to digitally generated material, it is a combination of different media such as text, graphics, video, and sound.

Pigment: A coloured substance which can be organic or synthetic.

Postdigital: Imagery created using a combination of digital and analogue materials, focusing on humanising digital technologies through the work.

Reflexive Practice: The interpretation and understanding of creative practice through analysing self or personal reflection.

Shinkyuu: Japanese word simultaneously meaning "new" and "old": "new old / old new" referring to situations and objects that can conceptually be both new and old simultaneously.

Texture: The appearance, feeling or consistency of a surface or material. Texture can be both digital and physical. Digital textures can only emit the appearance and impression of the surface or material, and not the physical sense of feeling.

Tradigital: Referring to any single thing that combines both traditional and computer-generated concepts and/or medium and/or technique.

Traditional Art: Art created by hand using physical, non-computer-based medium such as drawing, painting and print on physical canvas and paper, and including hand-drawn animation.

Visual Art: Art created to be visually seen such as painting, printmaking, sculpture, filmmaking, design, and architecture.

Abstract

Shinkyuu Art, a new arts practice fusing analogue imagery with digital imagery, was summoned, and shaped in this doctorate through artefacts. Shinkyuu Art was created specifically for the practice of fusion artwork, that both combines and fuses separate media. The classification, framework, and practice of Shinkyuu Art is an original contribution to knowledge, configured through the artefacts and exegesis doctoral approach.

The exegesis identifies the conflict within *Tradigital* terminology revealing incomplete literature, inconsistent definitions, and disciplinary ambiguity regarding its practice. Shinkyuu Art is proffered as a term created specifically for fusion media. The establishment of Shinkyuu Art, as practice tailored for fusion art styles outside of Tradigital restrictions is innovative. The naming of Shinkyuu Art matters. A name creates understanding and guidelines to direct creation.

Shinkyuu Art names, defines, and frames the niche field of fusion work that has existed for over a decade, making it integral to fusion arts practice. Shinkyuu Art is explored in this doctorate as a viable term for scholarly use. The doctorate is practice-based with an autoethnographic lens, composed of an exegesis and artefacts, alongside journal documentation through reflexive practice. This mode of doctorate was selected as Shinkyuu Art is shaped through the creation of artefacts, using an iterative process combining analogue and computer-generated media.

The artefacts were collectively framed through the colour blue and demonstrate how blue is used expressively and physically as pigment, contributing to the history of colour. The artefacts are displayed at a physical exhibition with digital elements within the space, rather than through digital interfaces alone. With Shinkyuu Art documented, this doctorate endorses a continual practice and process for fusion media. New Shinkyuu Art can emerge through practice, and the guidelines established in this doctoral research can be continued through future research. This doctorate engages a sustainable approach to art and knowledge creation.

Introduction

This introductory section of the exegesis provides an overview as to where the research stands within scholarly enquiry. Definitions of commonly used terms within this doctorate exegesis, such as *Tradigital* and *Shinkyuu Art,* are discussed. Following this presentation, the aims of research, research questions, implications and significance are presented. The original contribution to knowledge is outlined. This introduction also presents methods and methodologies activated, including a formulation of the relationships between artefacts, journals, and exegesis, and how they align to enable an original contribution to knowledge.

The Shape of this Doctorate

This doctorate is a practice-based research project, composed of artefacts and exegesis. The imperative of the doctorate is a redefinition, towards the practice of fusing analogue visual arts with computer-generated arts, through the new medium termed Shinkyuu Art. The doctorate contributes new knowledge through the development of artefacts representing Shinkyuu Art, reflexive understanding of processes behind the arts practice, and understanding of how the colour blue resonates with Shinkyuu Art creation.

The most common process for creating hybrid mixed media occurs by transition from traditional art to digital art and vice versa. This method has been coined "Tradigital" among some art circles. However, the existing literature has inconsistent definitions, resulting in extensive gaps in the research literature. Consequently, it became difficult to continue using Tradigital as the term for my own artworks. My existing practice is not easily categorised in previously existing art terminology as the works were created with calculated fusion flexibility.

Shinkyuu Art became my term for arts practice that oscillates between media to fuse them within an artwork. It was impossible to begin this doctorate without a name to describe the fusion process required. Shinkyuu Art is unique in this doctorate. This doctorate increases awareness of fusion art among researchers and artists to help expand existing literature within the field. Shinkyuu Art offers an alternative procedure for creating traditional/digital, mixed media, fusion/hybrid works, that is not Tradigital Art. As Shinkyuu Art does not currently exist in the English lexicon, this doctorate introduces and establishes the medium through creating artefacts representing Shinkyuu Art, which are then framed and discussed in the exegesis. The definition for Shinkyuu Art is informed by these artefacts. As I am the only artist

and researcher producing Shinkyuu Artworks, autoethnography was employed. This singular yet reflexive lens is vital in documenting the establishment of Shinkyuu Art as an arts medium. Journals were used as an accomplice to the exegesis—as a mechanism to log the creative process, which was then analysed in the exegesis through reflexive practice. In this doctorate, Shinkyuu Art practice is understood through summoning the colour blue to inspire and dictate the materials used with the artefacts. While utilising blue may seem an arbitrary choice, blue is resonant in the history of colour and art and emerged as a repeating motif in the pilot journals, which will be discussed later in the exegesis. Accordingly, Shinkyuu Art is presented as both practice and medium, with blue as a frame.

Shinkyuu – A Definition

Japanese word "shinkyuu" [Kanji: 新旧] means "new and old" simultaneously (Ahlström, Ahlström, & Plummer, n.d.), and is used to describe objects and contexts that are both "old" and "new". For example, a promotion provides a person with the same job but with new responsibilities; or an antique chair is newly acquired. The term shinkyuu was appropriated for this doctorate as it created new spaces for older art methods and concepts.

Discovering Shinkyuu

There were circumstances that helped the decision to use shinkyuu. When I first sought to find an appropriate word to describe my art, I looked at languages that I knew from experience could describe detailed situations using a singular word. German was one such language and Japanese was another. After being unable to find an appropriate word for German on my own, I requested the help of a Japanese friend, who immediately recited "shinkyuu" as the word I was likely looking for. I quickly knew it was the right term for the practice for many reasons. Japanese art has influenced many of my past and current artworks, and Japanese animation showcases some of the earliest examples of hybrid and fusion animation I have seen (see *Figure* 5, p. 59). Japan is known to be a culture of both old and new— "a land of contrasts" ("Old Versus New", n.d., para. 1), "where modern and ancient cultures are blended in harmony" (GoWithGuide, n.d., para. 1). With many Japanese words already in use in the English language (Reid, 2016), shinkyuu was found to be a suitable word.

Shinkyuu as Shinkyuu Art

I have reconfigured the word "Shinkyuu" suffixed with "Art" to describe work that combines "new and old" techniques, methods, and tools. As an example, *old* refers to physically hand-drawn art techniques and methods, under the bracket of traditional art. *New* refers to computer-generated images and technology-based techniques and methods, under digital art. Shinkyuu Art focuses on intently highlighting certain differences and similarities of traditional and digital media within an artwork. Commonly, this is texture, however it can be other elements. Digital imagery is unable to emanate the same aspects of a physical surface or material. A goal of Shinkyuu Art is to provide viewers, or the artist themselves, with the sense of touch—to attempt or assimilate physically real textures, by using different media. Consequently, both traditional and digital media are utilised in Shinkyuu Art.

Personal Relevance of Shinkyuu Art

I am a practicing artist developing work that renegotiates boundaries between traditional and digital art. I show the differences between traditional and digital within an artwork, through conscious and explicit application. In the late 2000s, I was introduced to Tradigital Art—a colloquial phrase deployed among some artists. Creating Tradigital Art satisfied my yearning for the tactile nature of traditional media while predominantly creating digital artworks. Manish Sinha (2008) defines "tradigitalists" as "analog-roots-digital-wings-guys [sic]", with which I agree (para. 3). In other words, I have a background in visual arts which progressed to digital arts. From this foundation, I began fusing traditional and digital methods together. There is disjuncture among Tradigital definitions in the literature (the discrepancies are further discussed on page 46), and it became difficult to refer to my own artwork as "Tradigital". Thus, I argue that a new name is necessary in describing my style of fusion work. This name is Shinkyuu Art.

Figure 1 is an example of my Shinkyuu Artwork prior to commencing the artefacts. *Snowdrop* is an animation; in which each frame is a single image from a series of images. Animation is included in my doctoral research, as each frame can be considered a single work of art (Solomon, 2018). In 2008, Sinha suggested it was "crucial to figure out how tradigital creativity will be different from its traditional variant" (para. 6). A decade later, I believe this statement now pertains to Shinkyuu Art, and how it is distinct from Tradigital. Shinkyuu describes any situation that is 'old' and 'new'. Consequently, it is important "Shinkyuu" is labelled with the attendant noun— "Art".

Figure 1

Production Still from Snowdrop (2010)

Note. Lines were drawn digitally with colour added from photographs of painted brushstrokes.

Art

Personal Impetus for Art

Within this doctorate, the term "art" is employed whilst understanding it has no universally agreed definition among art philosophers (Novitz, 1996; Elkins, 2001; Sleinis, 2003; Davies, 2015). The argument of what constitutes art will not be settled in this doctorate. Art historian James Elkins (2001) suggests art definition theories are best kept "open, and open-ended" as art history undoubtably changes (p. 121). Art definitions are the subject of debate across millennia, and multiple disciplinary perspectives (Novitz, 1996; Elkins, 2001; Davies, 2015), none of which are the subject of this doctorate. The subject is Shinkyuu Art, and its parameters. For the researcher, only Shinkyuu Art, which did not exist prior to this doctorate, was relevant. For the artist, the focus was on creating Shinkyuu Art. I, the researcher, then analysed these artefacts in the exegesis. These artefacts are a representation of current artwork, changing and adapting to the input of a technological world, engaged by this artist-researcher. With these limitations in mind, I will outline the theories shaping this research. My exegesis aligns itself with a theory provided by Stephen Davies (2015) whose definition

allows for emerging art to be defined. The framework is multicultural, extending beyond Western definitions (Elkins, 2001; Davies, 2015). Davies (2015) definition is:

> something is art (a) if it shows excellence of skill and achievement in realizing significant aesthetic goals, and either doing so is its primary, identifying function or doing so makes a vital contribution to the realization of its primary, identifying function, or (b) if it falls under an art genre or art form established and publicly recognized within an art tradition, or (c) if it is intended by its maker/presenter to be art and its maker/presenter does what is necessary and appropriate to realizing that intention. Meanwhile, artworlds—historically developed traditions of works, genres, theories, criticism, conventions for presentation, and so on—play a crucial but implicit role in (b) and (c). (p. 375)

Davies (2015) verifies his definition as being pertinent to numerous art movements and styles throughout history. Shinkyuu Art conforms to his definition. Firstly, Shinkyuu Art is (a) as it demonstrates a combination of skills to create hybrid/fusion art. Shinkyuu Art is (b) as it is formulated from many established art genres, including visual arts, media arts, and mixed media. Shinkyuu Art is (c), because as the artist, I intentionally create Shinkyuu Art for the purpose of creating art— Shinkyuu Art is a representation of art that combines new technology, with older traditional methods. It is a multitude of several artworlds rather than one, that has evolved with art's continual evolution. Indeed, with (c), Davies (2015) clarifies that art is still defined as art, even when created for oneself without an audience. Outside value is not required for defining something as art, provided there is an intention of displaying skill, and it is influenced by the artworld it stems from (Davies, 2015). Artworks may deviate from its "foundational works" to the point that "cultural outsiders can no longer recognize the artworks of those artworlds for what they are" (p. 380). An amalgamation of artworlds is employed for mixed art media such as Shinkyuu Art.

The Shinkyuu Art created for this doctoral research is my art and that art formulates the artefacts for research. The goal of this doctorate is to define and establish Shinkyuu Art through artefacts and practice. Based on this intention, this doctorate considers all work created by the artist, to be art. I acknowledge Davies' (2015) stipulation that some art can be considered more of a sketch or a study, rather than art, as there is plurality in the concepts and processes. The decision to categorise an artwork is subjective. Consequently, each artefact

within this doctorate, was classified through a researcher's view, with the sincerity to define and establish Shinkyuu Art. The art created for this doctorate, is irrefutably, Shinkyuu Art.

Art Culture and Value

Due to the nature of Shinkyuu Art as a mixed medium, Shinkyuu Art is not defined or treated as high or low culture. Shinkyuu Art embodies the activities I have developed over the years which have become a part of this doctoral practice. This doctorate does not dissect arguments regarding art value. Instead, my research aligns with Frow (1995) on challenging the divide between high art and popular culture. Categorising Shinkyuu Arts cultural value is not the imperative of this doctorate. Categorising the artefacts within a "low/high" divide, can be deemed as Frow (1995) suggests, an "Othering"—an exclusion and dismissal of unique perspectives and differences in art and culture, from outlying individuals. The refusal "to attend to the voices and the values of others" limits the ability to recognise "classificatory disputes" as being a "social and a moral issue that has very little, if anything, to do with metaphysical questions about the essential nature of art" (Novitz, 1996, p. 162). Indeed, value does not define art (Novitz, 1996; Elkins, 2001). Categorisation is subjective, and the evaluation of art, differs with personal experience (Novitz, 1996; Elkins, 2001). Although, subjective perception can be utilised for the benefits it provides, as "[t]he human mind possesses remarkable pattern perception mechanisms which may assist the process of exploration and discovery, even if a purely objective theory validation process is also sought" (Barclay & Gifford, 2018, p. 184). Nonetheless, art philosophy definitions can disagree—for example on aesthetics—based on their subjectivity (Davies, 2015). Novitz (1996) claims, to classify art "a viable definition of art" is not needed, "but an understanding of how and why we classify objects and activities as works of art" (p. 153), is.

It is worth noting that "popular" culture is often based on Western cultures (Brottman, 2005) and marginalises minorities; whilst Shinkyuu Art can encompass many categories of culture. The perception that "high art" is better than "popular" art (Frow, 1995; Dominiczak, 2012), is dismissed in this doctorate. Popular art is just as valuable as high art, to those it gives value to—it is subjective (Davies, 2015). Restricting Shinkyuu Art to low or high art only, would limit its scope for inspiration, and hinder the essence of a fusion medium from its full potential—to combine and fuse all art methods and media it finds appropriate. There is no hierarchy of cultural value within this doctorate. The process for creating Shinkyuu Art artefacts, and answering the research questions, remains the priority. In addition, Raymond Williams (1976) once described culture as one of the "most difficult words in the English language", and this

difficulty continues as the word evolves in art and society (p. 76). This doctorate recognises that culture is connected to the arts (Williams, 1976). However, the artefacts and artworks created in this doctorate, are connected specifically to Shinkyuu Arts.

It is beyond the scope of this doctorate to examine both Shinkyuu Art and its place within arts culture, let alone the history of doctoral education. The focus is on Shinkyuu Art shown through an autoethnographic lens. The art created for this doctorate was through this lens and showcases a particular vision and embodiment of Shinkyuu Art. As a researcher these artworks were presented as artefacts and analysed. Shinkyuu Art is an art medium created and defined by this artist-researcher. For the purposes of this exegesis, Shinkyuu Art culture will be embodied by the doctoral research I have undertaken, in developing Shinkyuu Art.

Personal Inspiration with the Colour Blue

The colour blue was chosen above other colours for numerous reasons. As an artist, blue is my favourite colour, often used as a focal point within my artworks to contrast with the colour red. Secondly, blue pigment history is evocative, and its replication in technology piqued interest from myself as a researcher. Thirdly, the colour blue has clear distinctions between its physical pigment form and its digital counterpart on a monitor screen. This digital/analogue distinction with blue, correlates with Shinkyuu Art, and is discussed later within this chapter. It was noticeable to the artist-researcher, that blue is regularly the dominant colour on computer screens, aside from neutral tones such as black and white. Lastly, although other colours were considered, a pilot study completed prior to artefact creation, overwhelmingly confirmed that I was most influenced by the colour blue, and this influence of blue was nested in theory and scholarly literature. Accordingly, blue became the thematic frame for the artefacts created in this doctorate.

Shinkyuu Art Methodology

This doctorate developed a unique methodology to create and define Shinkyuu Art. The *Shinkyuu Art Methodology* seen in *Figure 2* is a guideline for this doctorate, however it can be adapted for other work. Shinkyuu Art is a medium for sharing with other artists. *Figure 2* illustrates the methods of this doctoral research, instrumental in creating Shinkyuu Art artefacts, through the fusion of the three primary elements seen in the figure. These primary

elements branch into sub-categories. In *Figure 2,* the *Tradigital* section includes *Analogue* and *Digital* processes, but not *Art*, as the word Tradigital is also used in non-art situations in literature, such as marketing (Dougherty, 2007; "This Week", 2018; Spence, 2018c; Tuten & Solomon, 2018). *Shinkyuu Art* in *Figure 2,* is the combination of all areas, including *Tradigital Art* itself. The Shinkyuu Art process often includes textures from different media to invoke touch. Texture is unshown on *Figure 2* as its own category, however it is included under the larger encompassing category *Analogue* and *Digital. Figure 2* shows an innovative method for creating Shinkyuu Art influenced by the colour blue.

Figure 2

Shinkyuu Art Methodology
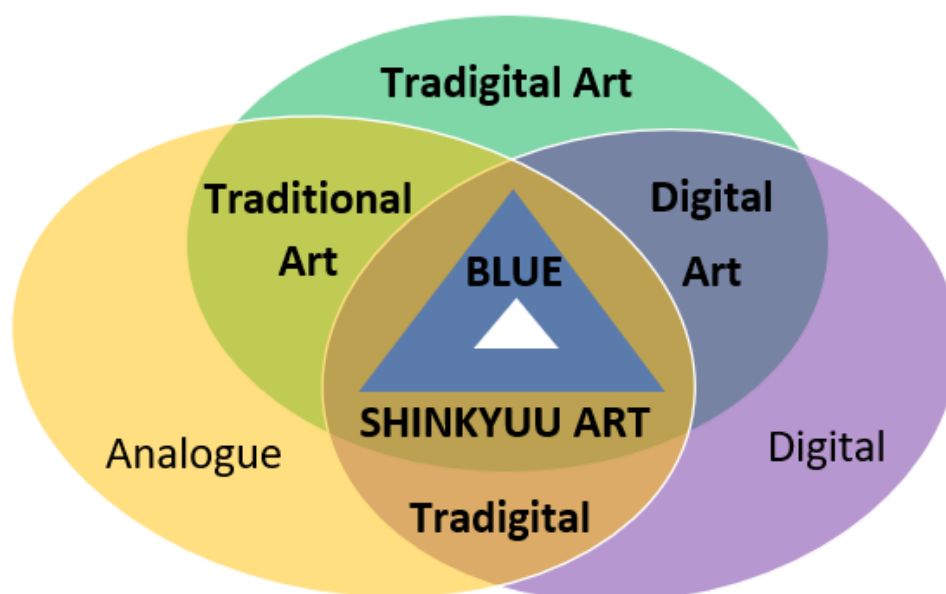
Shinkyuu Art is not a simple linear process of combining elements moving from Digital to Traditional and vice versa, although it can be; nor does it continuously use conventional techniques and processes, although this is also an option at its disposal. *Figure 2* further illustrates that its processes are embedded within one-another and can be used at any time and at any part of its evolution. The process alternates between categories, sometimes remaining in one area, or using certain elements before moving on—it is, unequivocally, the amalgamation of its parts. The Shinkyuu Art process uses a variety of media, tools, and processes, and transitions freely between media. No materials are excluded, except in the case it is inaccessible, or unavailable.

The Shinkyuu Art process is informed by individual artwork requirements and developmental arcs. In existing literature, the process for creating mixed media artworks are not always committed to paper. This exegesis attempts to address this issue, by documenting the process for creating Shinkyuu Art. Although artefacts were created for this doctorate, visually presenting Shinkyuu Art, Shinkyuu Art as medium and practice is ongoing for the artist-researcher. As new technology is introduced, and new inspirations, influences and ideas are developed, more contemporary work will emerge. New Shinkyuu Art will bring a wider acceptance and understanding of fusion media within the field of art, encouraging further development of Shinkyuu Art. Shinkyuu Art grows with the evolution of technology. With its dynamic framework, Shinkyuu Art avoids being impeded by dated terminology—old and new is continually transforming. My understanding of this medium and practice, post-research, enables me to modify and adapt Shinkyuu Art periodically.

In this doctorate research, the Shinkyuu Art created as artefacts, is framed by the colour blue. The *Blue* triangle in *Figure 2* represents works that are blue, as well as the noticeable absence of blue (empty triangle). *Blue* can inspire and/or be a material for use from different sections of the figure. The colour can be produced from both the *Analogue* and *Digital* categories. Blue can be a part of the creation process or influence the artist's subconscious. For instance, blue is seen in a clear sky day, or in natural and synthetic colouring. When the sky is clouded it is unseen, however, we still know it is blue. Blue is an inspiration for the artist-researcher and is a living part of this doctorate's Shinkyuu Art methodology. Blue is omnipresent in this doctorate methodology, including, when it is absent.

Pigment, in this doctorate, includes *lake pigments* and dyes, organic and inorganic, natural and synthetic (definitions for terms can be found in the *Glossary* on p.13). The colour blue has a distinct pigment history (see *Chapter 2: Blue,* p. 69). Fundamentally, blue pigment is difficult to create, and the introduction of digital technology allows blue to be seen in extensive shades and tones without the restriction of physical pigment. Shinkyuu Art, effectively, is production of art that can utilise the best assets of both analogue and computer-generated media. Blue in Shinkyuu Art, is both its physical pigment and digital form.

This doctorate contributes to the continuing history and debate about art methods and the use of colour, specifically blue, in the creation of contemporary works. The doctorate reveals knowledge of Shinkyuu Art practice through artefacts, of the ways in which media can be fused and why; and demonstrates how blue colours influenced the Shinkyuu Art process and

artefacts to reveal new knowledge. The creation of Shinkyuu Art allows it to be compared to other creative media such as Tradigital Art, visual art, and digital art, in addition to individual artworks and artists. The resonance of blue as a frame is better understood through this doctorate. Shinkyuu Art can be reproduced using other colours in place of blue, post-research.

The Shinkyuu Art Model

Figure 3 shows a continuum for balancing media between analogue and digital for Shinkyuu Art (for a completed model please see page 135). Artworks start in either the *Analogue* or *Digital* side of the model. Through a continual iterative process, the steps steadily progress towards each other—including alternating sides—until reaching a middle ground—the creation of *Shinkyuu Art*. The middle ground will not always be dead-centre on adapted models, as there will be artworks that remain more to one side or the other. Shinkyuu Art may not be perfectly balanced between the *Digital* and *Analogue* labels. The dashed lines in *Figure* 3 convey the overall central area in which a Shinkyuu Artwork aims to reside. However, all steps towards creating Shinkyuu Art can be considered within the scope of *Shinkyuu Art* according to the figure—the intention of creation is integral; it allows for paths to occur between *Analogue* and *Digital.* This path crosses over the *Shinkyuu Art* area, with the dashed lines expanding as more crossovers between *Analogue* and *Digital* are accomplished.

Figure 3
Shinkyuu Art Model
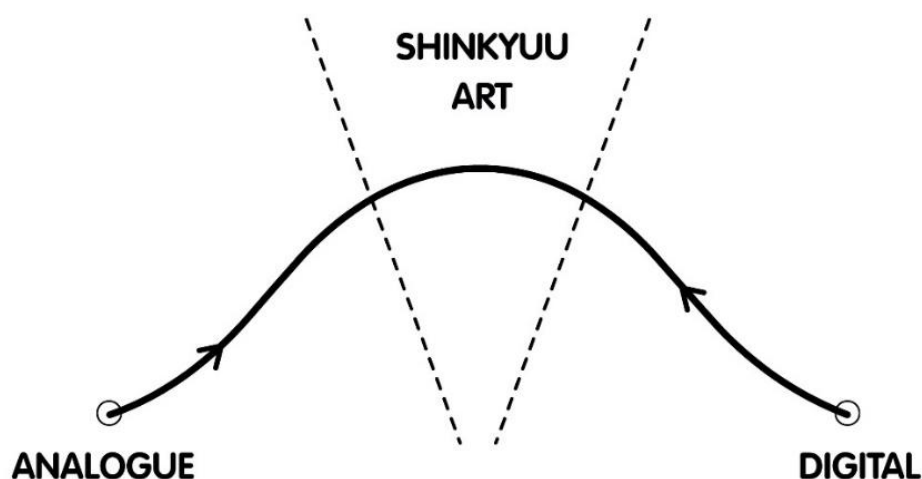
The aesthetics of the Shinkyuu Artworks are not as important as the process. An artwork's appearance may not always have a visibly or distinctly digital/analogue divide. It may be difficult to discern these differences without background knowledge of the process. The large

and small openings above and below the dashed lines in *Figure 3* acknowledge that the visual clarity of Shinkyuu Art is open-ended. The results will vary depending on the process of each artwork. Not all works are markedly Shinkyuu Art from sight, so flexibility is permissible in Shinkyuu Art, and on the *Shinkyuu Art Model*.

Most importantly, the label *Shinkyuu Art* in *Figure 3* conveys a clear intention of creating Shinkyuu Art. The artist continues combining *Analogue* and *Digital* methods, with this sole intent, and ceases when *Shinkyuu Art is* achieved to a desired degree. They may consider how equally "balanced" an artwork is on *Figure 3*'s "scales"; however, Shinkyuu Art also considers what Whitley (2018) has suggested of Tradigital—that different plans require different blends and ratios of digital and traditional. The journey of creating Shinkyuu artefacts are of greater substance than the artefacts' outward appearance; although this journey would not be possible without the artefact itself.

Aims

This doctorate aims to provide a comprehensive definition for Shinkyuu Art and establish it as a new arts practice and medium. The doctoral research provides insight, structure, and analysis of the processes of Shinkyuu Art. It examines and refines my own understanding of Shinkyuu Art development and practice. This doctorate also explores the similarities and differences between Shinkyuu Art and Tradigital Art, in being identified as a medium for combining analogue and computer-generated artwork. The Shinkyuu Artworks created for this doctorate focus on the colour blue, to bond and align the artworks to each other. This theme aims to showcase how the colour blue influences the Shinkyuu Art created and enhances understanding of colour.

Research Questions

The research questions framing this doctorate are addressed using practice-based research, with autoethnographic reflection, to create artefacts representing and defining Shinkyuu Art. These questions are:

1. By creating Shinkyuu Art, what is revealed through the process of fusing analogue and computer-generated art?

2. How does the practice and creation of contemporary Shinkyuu Art create new knowledge?

3. What is the potential of blue as a platform and frame to produce fusion art?

Original Contribution to Knowledge

The original contribution to knowledge of this doctorate is to reduce the gap in literature surrounding fusion media, by addressing Tradigital definitions, and introducing a new medium called Shinkyuu Art. The new medium is unique to this doctorate. The analysis of Shinkyuu Art orientates within fusion/hybrid/mixed media arts and practice, presenting an area of knowledge that is missing in current literature. The original contribution includes artefacts as a physical and visual component demonstrating Shinkyuu Art, and journals that document the Shinkyuu Art process. Both the journals and artefacts are reflected upon and analysed in the exegesis, providing Shinkyuu Art understanding. Each artefact is compared to *Figure 3* to surmise its place on the *Shinkyuu Art Model*. This original contribution also extends towards new knowledge on blue, as pigments and screen colours, as an expansion on colour history, and as inspiration and influence on Shinkyuu Art as a material. The literature on colour theory is expanded through a personal lens, which is often not implemented in doctoral research.

Practicing art conveys "direct experience and artistic expression [that is] necessary to convey dimensions of experiential meaning, not accessible through words alone or others' authority" (Rappaport, 2012, p. 201). Thus, defining Shinkyuu Art through artefacts can provide "new knowledge through its creation" (Barone & Eisner, 2012, p. 24), for that of both Shinkyuu Art and blue in art. This doctorate as practice-based research is different to scientific research—it is empirical and illustrative and never wholly representative, due to "art's unique ways of knowing and communicating" (McNiff, 2013, p. 6). Consequently, this doctorate requires "a different set of categories where the arts do not search for stuff or facts, but they generate it" (Baldacchino, 2009, p. 4). Framed within practice-based research the artefacts are a visual representation of Shinkyuu Art. The artefacts demonstrate how the colour blue affects the methods and materials used and highlight when blue is not used. The knowledge obtained from this doctorate is valuable in not only future arts practice, but is also beneficial to other artists, educators, in critique, and in psychology and the sciences where information on pigments can be fundamental. Both hybrid/fusion art and arts research can be considered under-researched (see *Chapter 1: Art <-> Style,* p. 43). This doctorate presents another example

of practice-based research.

Implications

The innovation of Shinkyuu Art adds to the lexicon of terms describing art practices. By presenting Shinkyuu Art as a working definition, and identifying how I claim that practice, it contributes:

1. A new art practice and medium.
2. A mode of thinking, practice, and medium, for current and future artists creating fusion works.
3. A way to critique, catalogue, and identify contemporary fusion art works.
4. Offer further understandings of the use of the colour blue in art.

Significance

Use of digital technology in art has greatly increased since the 1990s (Barone & Eisner, 2012; Hazan, 2001), and as such, the definition of Tradigital, a hybrid form of media, should be updated for the twenty-first century, as "[n]ew technologies open up new possibilities" (Meis, 2016, para. 43). Current definitions of Tradigital are inconsistent and used broadly, expanding outside the arts. Tradigital is traditional combined with digital. However, in some cases, only digital aspects are required, such as Ritson's (2017b) definition. The origin of the word Tradigital is unclear, as many sources pertaining to it are undated personal statements on websites (www.helengolden.com, www.bonnylhotka.com), or community editable encyclopedias (www.wikipedia.com, www.techopedia.com). As the only current literature on the topic these sources remain included in this doctoral research with acknowledgement of their issues. Currently, the earliest dated literature mentioning Tradigital is from 1996 regarding artist Dorothy Krause, stating "I have come up with the term 'tradigital' for my approach to art making, combining the traditional with the new" (Zimmer, 1996, p. 1). This source appears to suggest Krause invented Tradigital, however the *Literature Review* in *Chapter 1* shows otherwise. Consequently, a new term is essential to describe the fusion of traditional and digital, which this doctorate unpacks. This term is Shinkyuu Art, which I use in place of Tradigital Art.

To extrapolate upon the analysis found on Shinkyuu Art, the doctorate explored how the colour blue influences this medium, and affects the artefacts produced. Blue has an evocative

colour history. Its frequency in print and distribution in society (Pastoureau, 2000/2001), lends itself to Shinkyuu Art. Both are influenced by technology—blue with digital screen colour, light, and synthetic ink; and Shinkyuu Art exists only because digital technology was introduced. This doctorate concentrates on the single colour group of blue to narrow its scope. Post-doctorate, there is potential for research regarding other colours with Shinkyuu Art.

Fowler (2014) suggests academia often rejects colour as a legitimate research topic, particularly outside the Sciences. Consequently, colour theory has not been well researched, despite its complexity through "layering of linguistic, material and personal histories, emotions, memories, dreams, and thoughts [making] experiencing color [*sic*] among the highest order of individualization, of the subjective" (p. 25). This doctorate, although limited to one perspective, contributes to colour theory knowledge and allows readers to align their experiences to the texts configured by the researcher.

Arts Research Methods

Arts research methods are engaged for providing "unique ways of knowing and communicating" and allowing demonstration of knowledge (McNiff, 2013, p. 6). Current arts research literature often combines different modes of enquiry with similar names, under the same umbrella term (Barrett & Bolt, 2010; McNiff, 2013). Substituting terms can cause misunderstanding between enquiry definitions. Such terms as arts-based research, practice-led research, and practice-based research, were used interchangeably in literature due to the disjunction of non-conclusive definitions and ongoing conflict (Biggs & Buchler, 2008; Paltridge, Starfield, Ravelli, & Nicholson, 2012; Candy & Edmonds, 2018; Brabazon, Lyndall-Knight, & Hills, 2020). Arts-related research is rigorous, important, and defiant in difference from empirical sciences, however the surrounding issues about methodology, ontology, and epistemology, have remained constant in published articles for over three decades (Biggs & Buchler, 2008; Candy & Edmonds, 2018). For example, an edited book by McNiff (2013) uses the term "arts-based research" to encompass and include for "all of the arts" (p. 3). Although there is value in his insights into arts-based research, it is unclear if the studies presented consistently use an arts-based research methodology, or an umbrella terminology.

Inconsistent arts research terminology is also found in Barrett and Bolt's edited book *Practice as Research* (2010), which compiles different enquiry approaches, including practice-led

research and practice-based research, under "studio-based research"—another umbrella term. Chapter 1 is about practice-based research, or "creative research", which according to Carter (2007) was emergent at the time. Chapter 11 mentions numerous other apparently interchangeable terms, including "practice-integrated research", however uses practice-led research instead as it "has become a prominent term for effectively describing the research approach that enables [...] research through practice" (Haseman, 2007, p. 149). There is also "creative arts-based research" mentioned in *Practice as Research* (2010). The terms were not clearly differentiated. Haseman (2007) suggests methods can be borrowed from other fields, thereby furthering confusion. Barrett and Bolt (2010) themselves participate in practice-led research. Although their book is for studio-based research, and practice-led research (often interchanged with practice-based), it is still an example of practice-led research in its emerging stages prior to full establishment.

Sullivan (2010) defines the differences between arts-based research and practice-based research methodologies. Arts-based research uses mixed-methods to incorporate the arts as a part of enquiry for data and discovery. Practice-based research is focused on creative work although must also be presented with writing to clarify and extrapolate on the artefacts. These two methods are similar in that both include the practice and creation of art. According to Barone and Eisner (2012), their conception of arts-based research "as a broad approach to social inquiry" and "despite the variance among examples of arts based research" involves a common feature which "has to do with the creation of an expressive form" (p. 9). Both Barone and Eisner are not without criticism as presented by Jagodzinski and Wallin (2013), however Sullivan is praised by the authors as "central to art educational research" (p. 58). Jagodzinski and Wallin's arguments will not be further discussed in this doctoral research although their text is acknowledged for their contribution in this field of literature. Coincidingly, Jagodzinski and Wallin (2013) also state "[a]rts-based knowledge is derived from the *processes* that go into making art" (p. 59, emphasis in original), although according to Rolling Jr. (2013), "the purpose of arts-based research, like all research, is theory-building" (p. 1).

Regarding practice-led research, Sullivan (2010) specifies an artefact is not always required, however the methods, research questions, and overall focus is still led by creative practice. Many practice-led research examples in Barrett and Bolt (2010), confirm that research discoveries in this method emerge through its writing, and not fundamental to artefacts. Practice-led research by Everitt and Holmes (2015) however, produced an artefact as "the practical outcome, the evidence of application of a creative process and of applied practice

and skills" (p. 227). Recent literature suggests practice-led research does not always require an artefact to research practice (Candy, 2006; Candy & Edmonds, 2018). Candy and Edmonds (2018) differentiate between practice-led and practice-based research by the criteria that "[i]f a creative artifact is the basis of the contribution to knowledge, the research is practice-*based*. If the research leads primarily to new understandings about practice, it is practice-*led*" (p. 64, emphasis in original). In the creative arts, the practice and creation of artefacts in practice-based research is the major focus of enquiry, with research questions formulated based on its practice (Candy & Edmonds, 2018). Definitions of practice-led and practice-based methods were often interchangeable rather than conclusive, so it is paramount that Candy and Edmonds (2018) sought to clarify their differentiation. In this doctorate, the creative artefacts are paramount in revealing new knowledge on Shinkyuu Art practice.

Although this doctorate uses practice-based research, literature from other paradigms is included as integral to this doctorate's argument. This literature has valuable insights on practice with research (Biggs & Buchler, 2008; Candy & Edmonds, 2018). My research acknowledges practice and research are distinct fields that can be aligned and investigated together. An example is seen when evaluating artefacts in research. Barone and Eisner (2012) suggest that a creation of work can contribute new knowledge through its existence, and this is true of all artefact-inclusive research. It is also established that arts-research largely focuses on resonance and credibility over validity and does not conform with traditional scientific definitions of validity (Barone & Eisner, 2012, p. 22). Similarly, Shaun McNiff (2008) explored a more in-depth artistic process through creating and analysing his own art, compared to if he had only interviewed other artists. This deep exploration is beneficial to understanding and defining Shinkyuu Art. McNiff (2013) could have researched other artists, however states using "art made by others to advance [his] ideas . . . felt indirect [and] increasingly like misappropriation" (p. 7). Practice-led and practice-based methods are consistent in their goal to present research beyond subjective experiences and viewpoints. An individual experience may be researched in these methods; however the research is personal, with differences between personal research, and research for "public" (McNamara, 2012; Candy & Edmonds, 2018). Baldacchino (2009) argued that "[a]*rt practice* is, in and of itself, a specific and special form of *research*" (p. 4, emphasis in original). However, research methods should all convey a clear distinction between practice and research (Biggs & Buchler, 2008; Candy & Edmonds, 2018), and must also contribute something original to knowledge (Kossak, 2012).

Each of these arts research methods were formulated to fulfil a need for arts research framed to current research standards (McNamara, 2012). These methods can all utilise reflection and reflexive practice (McNamara, 2012). Practice-led research is not "more self-reflexive than other forms of research" (McNamara, 2012, p. 10). Arts related research methods, that include reflexive practice processes, are therefore inherently iterative (Sullivan, 2010).

Arts-Research Methods Defined

Although the aforementioned arts-related research methods have varied definitions, there are agreed common traits and features. For the purposes of this doctorate, these traits and features are outlined in this section, along with details of the practice-based research method chosen.

Arts-based research incorporates the creative arts as method for data and research using reflexive practices (Sullivan, 2010). Having stemmed from "art-based enquiry" it is creative process and practice with academic reflection (Kossak, 2012). The refection is with both oneself and others, including verbal communication, and must be documented (Gerber et al., 2012). Such documentation can be a self-standing contribution to knowledge (Kossak, 2012).

Practice-led research is research led by a chosen creative practice. There is "back-and-forth interaction between the practice and its conceptual framework or articulation" (McNamara, 2012, p. 8). This back-and-forth lends itself to reflexive practices, however it is recommended to separate personal art development from arts research, as "the needs of practice and the needs of the practitioner-researcher do not correlate" (McNamara, 2012, p. 11). The written reflection must lead to an original contribution to knowledge in the practice (Skains, 2018). Practice-led research, although led by practice and its creation, does not always produce an artefact (Candy & Edmonds, 2018; Skains, 2018). The overall research focus in terms of methods, research questions and analysis, is however still led by practice.

Practice-based research is focused and based on the creative work and artefacts. The creation of artefacts seeks to create new knowledge through practice and process (Skains, 2018). These artefacts must be presented with an exegesis or written component. The exegesis is a critical discussion to contextualise the practice and findings within the research. Based on this information and what is presented in *Table 1*, practice-based research was deemed the most appropriate for developing Shinkyuu Art.

Table 1

Three Common Arts Research Methods Compared

	Research Method		
	Practice-Led	**Practice-Based**	**Arts-Based**
Creative Practice	Y	Y	Y
Artefact Creation	O	Y	Y
Exegesis/Thesis	Y	Y	Y
Arts Informs Research	Y	Y	Y
Primary Contribution to Knowledge Through Artefact	N	Y	O
Primary Contribution to Knowledge Through Practice	Y	O	O
Primary Contribution to Knowledge Through Exegesis	O	O	O
Reflexive Practices	Y	Y	Y
Journal	O	O	O

Note: *Y* stands for Yes. *N* stands for No. *O* stands for Optional.

Practice-Based Research Methods

This doctorate is composed of an exegesis with artefacts. It is positioned within practice-based research, with that phrase chosen intentionality. It is a distinct enquiry separate from practice-led methods (Smith & Dean, 2009; Sullivan, 2010). There are existing discrepancies, including between disciplines, about the name "practice-based research" where it has also been called "research as practice" and "practice as research" (Candy & Edmonds, 2018). For the purposes of this doctorate, the recent definition from Candy and Edmonds (2018) in relationship to the creative arts and media arts, is used. They specify the "emphasis is on creative process and the works that are generated: Here, the artifact [*sic*] plays a vital part in the new understandings about practice that arise" (p.63). An exegesis is integral to the artefacts as an accompaniment of "critical reflection [...] to show evidence of original scholarship and to contain material that can be published or exhibited publicly" (Candy & Edmonds, 2018, p. 65); and is a "means of articulating a more profound rationale for institutional recognition and support of creative arts research" (Barrett, 2004, p. 161). Together

with the artefacts, the exegesis extrapolates areas of the doctoral research in written form. The artefacts and exegesis combined create a multimodal delivery of research, which conforms with what Elkins (2009) describes as the second model of the "Three Configurations of Studio-Art PhDs".

Elkins (2009) argues that "the dissertation is considered as conceptually equal to the art. The research doesn't support or inform the art, but complements it, each one illuminating the other" (p. 111). Candy and Edmonds (2018) confirm that in practice-based research, "the research and the practice operate as interdependent and complementary processes" (p. 63). As stated by Skains (2018), "a full understanding can only be achieved through the cohesive presentation of the creative artefact and the critical exegesis" (p. 85). Conclusively, the artefacts visually present what the exegesis cannot, and the exegesis discusses what the artefacts cannot show. They are of equal importance and are "symbiotic in relation" (Paltridge et al., 2012, p. 10). It is a "blend" of "creative practice with more conventional notions of research" (Ravelli, Paltridge, & Starfield, 2014, p. 1). As substantiated by arts-based researchers, art knowledge and understanding is enhanced by experiencing the creation of art first-hand (Kossak, 2012, p. 25; Moon, 2012, p. 32; McNiff, 2013, p. 6). Although this concept may not have been configured for practice-based research, it can be applied to all arts-related research, including this doctorate.

Candy and Edmonds (2018) emphasised that "[n]ew knowledge about practice that informs practice may at times only be obtainable by adopting a practice-based approach" (p. 63). Their statement is accurately applied through this doctoral research. Where arts-based research, practice-led research and other unmentioned modes of enquiry were considered, practice-based research emerged as paramount to summoning and shaping Shinkyuu Art. Indeed, it is essential for this research to be both exegesis and artefacts. This method provides a larger comprehension scope than other singular modes. Through practice-based research, new contributions to knowledge emerged defining the parameters of Shinkyuu Art, how the artefacts were synthesised by the colour blue, and how the artefacts informed the practice.

Practice-Based Research Application

Based on the review of arts research methods in the previous sections, practice-based research was confirmed to be the most acceptable method for this doctorate. Shinkyuu Art and the colour blue—both visual elements in practice, must be seen. This doctorate requires the creation of artefacts informed by the exegesis. As Shinkyuu Art developed from this artist's

mindset, this doctoral research looks at Shinkyuu Art through an individual lens. This lens provides a comprehensive understanding of practice and process (McNiff, 2013). A personal lens can promote "a sense of empathy" (Barone & Eisner, 2012, p. 23) and understanding. Although the lens of this doctorate is personal, the research satisfies a gap in the literature surrounding mixed media fusion art, benefiting other artists, educators, critiques, and researchers. Summoning the artefacts through the colour blue enables the reader/viewer to see that Shinkyuu Art is a feasible medium and practice. Shinkyuu Art is also directed by the possibilities and limitations of the colour blue. Framing the Shinkyuu Artworks with blue is another contribution to knowledge, made possible through the creation of artefacts, in practice-based research.

Creating art is paramount in summoning and shaping Shinkyuu Art where the knowledge stems from its physical manifestation. Animator Brooks (2017) recognizes this, saying "[i]t's great to have a conceptual knowledge when learning, but if it can't be implemented then it becomes rather useless. Learning by doing is clearly invaluable" (p. 169). He also advises that academia and trade are better in combination (Brooks, 2017)—an approach this doctorate engages. This doctorate is further connected by journals documenting behind-the-scene processes, insights, and findings. Indeed, it consists of artefacts, exegesis, journals, and an exhibition. The exhibition will allow for examiners to experience the artefacts as they are intended to be seen; and as recommended by Candy and Edmonds (2018), to allow for "as near as possible a genuine sense of the experience of the works" (p.65).

Practice-based research "has particular characteristics that do not conform to traditional norms about research"—characteristics which this doctorate exhibits—however "practice-based research *is* research and not practice alone" (Candy & Edmonds, 2018, p. 68). The artefacts and journals represent the findings in traditional research methodologies. The PhD as exegesis is unique, and although different from traditional research, is research with standardised rules.

Practice-based research is activated in this doctorate through the following process:

1. Creation of artefacts to provide the framework, examples, and trajectory for new knowledge. These artefacts are realised objects that can be presented at an exhibition.
2. Accompanying journals to document the practice and progress through the artefacts.
3. An exegesis, identifying the gap in the literature and where this doctorate is positioned within that literature, including history and new compilations of work. The literature

is informed by the creation of artefacts, which informs the practice. The exegesis also contributes to new knowledge.

4. A written reflection and analysis within the exegesis, which is based off the journals and its documentation of artefacts.

Shinkyuu Art is an effective frame and platform for a practice-based doctorate, where practice is engaged in the production of Shinkyuu Art artefacts and defined in the exegesis. The artefacts showcase the results of practicing Shinkyuu Art and define Shinkyuu Art visually through images. Shinkyuu Art is also defined textually through journals and exegesis. An original contribution to knowledge is obtained through the practice and investigation of Shinkyuu Art.

The Autoethnography Method

Autoethnography is a research method engaged by this doctorate, defined by Ellis, Adams and Bochner (2011), "[a]s a method, [that] combines characteristics of autobiography and ethnography. When writing an autobiography, a researcher/author retroactively and selectively writes about past experiences" (p. 3). Researchers detail experiences through hindsight and recall referencing personal and external documentation such as photographs, journals, and recordings (Ellis et al., 2011). Rolling Jr. (2013) specifies it is a social research method bridging individual reflexivity (auto-), human experience (-ethno-) and writing as inquiry (-graphy). The writing of autoethnography comes from "epiphanies that stem from, or are made possible by, being part of a culture and/or by possessing a particular cultural identity" (Ellis et al., 2011, p. 4). Autoethnographic writing can draw on personal experiences and understanding (Wall, 2006). As such, autoethnography looks at qualitative research through an individual lens.

Journals were kept to aid in recall (Perry, 2007) and as a part of this doctorate's methodology. A journal or "reflective sketchbook" as named by Prior (2012) captures "moment-by-moment thoughts and reflections that unconsciously spring from improvisation or working in process" (p. 165). The journal is a valuable research method that continually "forms and informs the artistic process" (Prior, 2012, p. 165), and complements documentation of practice.

Practice-based research focuses on, and is based on, practice itself. The practice chosen for this doctorate is Shinkyuu Art. For there to be an original contribution to knowledge using

practice-based research, a series of Shinkyuu Art artefacts were developed demonstrating this practice. It is the first instalment of its kind. The autoethnography, written from reflection upon journals which contribute to this exegesis, complement this doctorate. The autoethnographic method accompanies practice-based research effectively when analysing data in one's self about practice.

This doctorate benefits from an autoethnographic method using insider knowledge of Shinkyuu Art practices. Self-reflexive examination and reflexive practice on Shinkyuu Art is engaged within the autoethnography.

Shinkyuu Art Culture

This doctorate's autoethnography investigates the creation of Shinkyuu Art. Most of the cultural insight is supplied through the lens of the artist-researcher. Originating from the artists' participation in Tradigital Art culture, the new term of Shinkyuu Art was used to categorise and guide the new artefacts created. This singular lens was necessary to gain new knowledge revealed through the process of creating Shinkyuu Art, and of how blue shaped the doctoral research and practice. Although the literature looks at other artists using blue, and those creating with both traditional and digital media, these artists do not know the term Shinkyuu Art.

The defining characteristics of Shinkyuu Art arose by documenting the artefacts from their foundations. Each foundation included the methods and materials for creating Shinkyuu Art, its appearance, how blue influenced its creation, and how personal experiences and knowledge influenced its creation. Overarching is the contribution of Shinkyuu Art knowledge to the literature of fusion art and research. This interpretation—inside a culture of creation and development of Shinkyuu Art framed by blue—is one that will enhance others' knowledge on its topic areas and facilitate sharing of ideas across disciplines. The autoethnography is an effective method for examining Shinkyuu Art.

<-> Artefacts <-> Journals <-> Exegesis <->

This doctorate, although formed through an exegesis with artefacts, is in fact three parts: the exegesis currently being read by examiners, the artefacts which will be viewed in full at exhibition, and the journals which bridge the exegesis and artefact. The relationship between each section is outlined in *Figure 4.* The *Artefacts* are documented in the *Journals*, which

informed the *Exegesis*. The *Exegesis* also informs the *Artefacts* preceding them through the veil of the literature. The exegesis defines the artefacts in a formal written structure, while the journals (informal) serve to dwell within liminal space and make transparent the development of the artefacts.

Figure 4

Relationship Between Artefacts ⇔ Journals ⇔ Exegesis

LEGEND:

◊	Exegesis	◊□	Relates to both Exegesis and Journals	Δ◊	Relates to both Artefacts and Exegesis
□	Journals	□Δ	Relates to both Journals and Artefacts	♠	Relates to All
Δ	Artefacts				
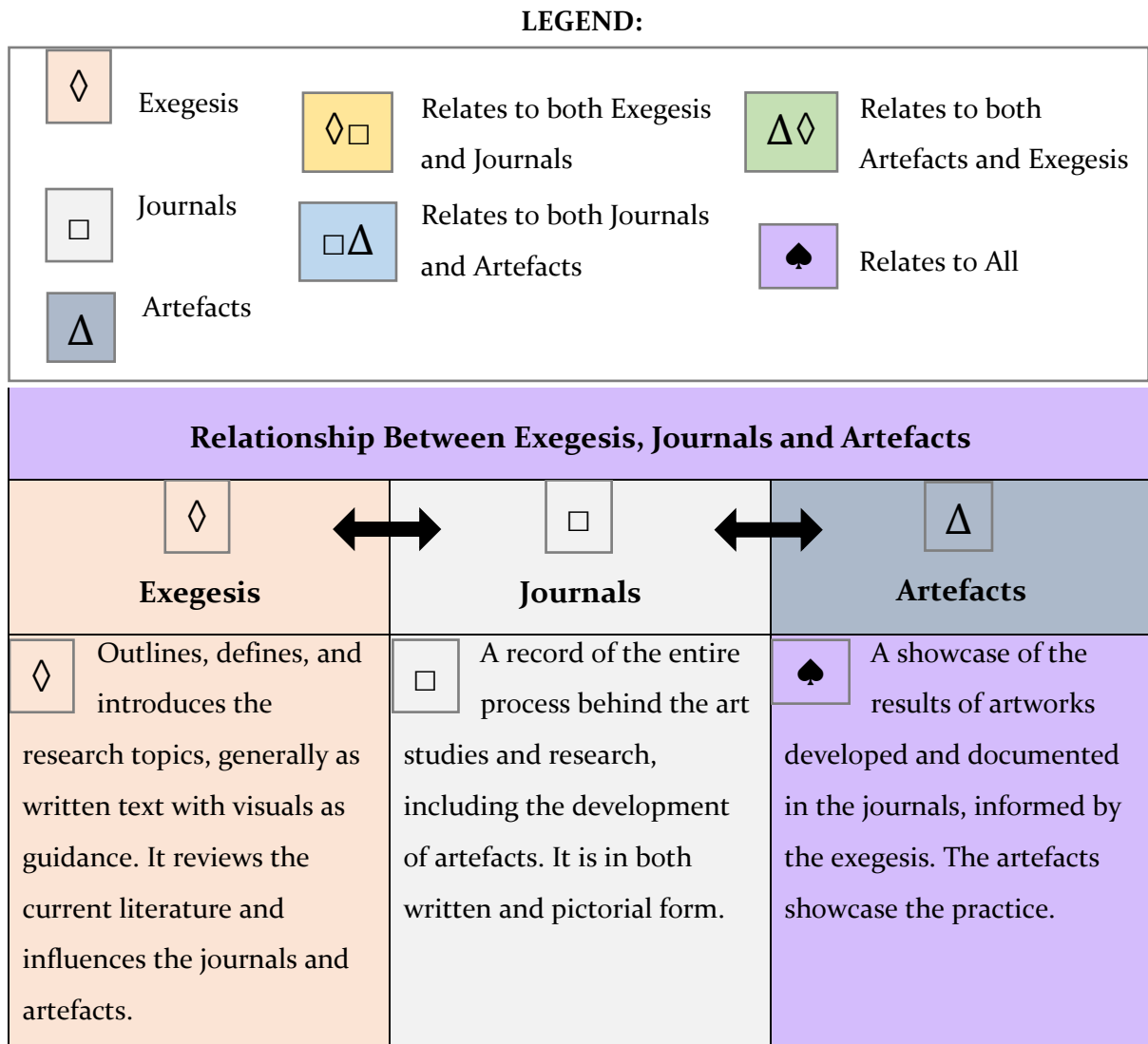
Relationship Between Exegesis, Journals and Artefacts		
◊ ⟷	□ ⟷	Δ
Exegesis	**Journals**	**Artefacts**
◊ Outlines, defines, and introduces the research topics, generally as written text with visuals as guidance. It reviews the current literature and influences the journals and artefacts.	□ A record of the entire process behind the art studies and research, including the development of artefacts. It is in both written and pictorial form.	♠ A showcase of the results of artworks developed and documented in the journals, informed by the exegesis. The artefacts showcase the practice.

◊ Exegesis	↔ □ Journals	↔ Δ Artefacts
♠ Bridging between journals and artefacts, the exegesis reflects, revises, and interprets the journals. The artefacts are guided and shaped by the research questions.	◊□ The journals refer to the exegesis and shows the thought process behind decisions made that eventuate to written form in the exegesis.	Δ◊ There will be an exhibition to showcase the artefacts physically, with images also made available in the exegesis.
◊□ Refers to the journals and defines what is documented there.	♠ Bridging between exegesis and artefacts, the journals are a transitionary document, although it should be read in tandem with the exegesis, and in reference to artefacts. The journals are, in practice, dispersed across all areas here, and occasionally informs the artefacts.	Δ◊ The artefacts translate the knowledge from the exegesis literature into pictorial form. It illuminates what the exegesis communicates but pictorially.
Δ◊ Refers to the artefacts and encapsulates and defines what is shown, why it is being shown, and how it is relevant to the doctorate.	□Δ The journals document the art studies process, progress, methods, materials, and media used, that in turn develops into the final artefacts. The journals provide insight into the thought process behind decisions made on the art studies. The studies eventuate into artefacts.	□Δ The artefacts may, in some cases, refer to or use/display some of the art studies created in the journals. Excerpts of the journal process may be made available to view with artefacts. Art studies may also exhibit alongside the artefacts.

Ideally, this exegesis would be read prior to viewing the artefacts. Each of these modes of knowledge play a particular role to the whole of this doctorate. Though separate, they are to be examined close in tandem with each other, where possible. It is recommended to gain an initial impression of the artefacts (there is a written and visual catalogue of the exhibition artefacts on page 132), view the exhibition, then continue reading the exegesis. There are prompts to refer to the Appendices for excerpts from the journals. The journals, which are presented as separate documents for examiners, do not require prior reading to understand this exegesis (see Appendix A). If more context or information is needed by a reader, each appendix clearly marks the document file and page number each journal excerpt comes from. There are four individual journal documents, each one dated with the year they were written in. The matrix in *Figure 4* presents the direct relationships between the exegesis, journals, and artefacts, using colour and symbols. *Figure 4* extends across multiple pages and should be used to recognise there are multiple relationships between the artefacts, journals, and exegesis. The doctorate interlocks these components into an argument. Where the exhibition fits within this doctorate is discussed in the next section.

Exhibition

The exhibition will be presented after the submission of this exegesis. The exhibition is the platform for delivery of the artefacts and is not an artefact itself. It is a vehicle and place for the artefacts to be experienced on a physical platform within one location. The exegesis and exhibition are to be reviewed in an aligned and iterative fashion—only the artefacts will be made available for viewing at the exhibition, with any supplementary material seen in this exegesis to be cross-referenced.

The exhibition is required, as this doctorate follows Candy and Edmonds' (2018) definition of practice-based research. An exhibition allows for direct engagement with the artefacts, and a deeper understanding of the knowledge offered. As a visual medium, Shinkyuu Art should be seen in-person if possible, however given that this doctorate is being submitted at the time of a global pandemic, a virtual viewing experience may be the only option.

The exhibition will be in a gallery-style setting, with some works requiring physical interaction. It is expected that reviewers attend the exhibition and participate with each artefact. Each artefact can additionally be cross-referenced to the Shinkyuu Art definition (see page 19), the *Shinkyuu Art Methodology* (see Figure 2), and *Shinkyuu Art Model* (see Figure 3).

Respective artefacts should be compared to those guidelines, noting the characteristics that do and do not make Shinkyuu Art. The respective *Shinkyuu Art Model* for each artefact can be seen from page 132. Note also, why blue is used or not used within each artefact. The artefacts have an alignment to the colour blue, including during the colour's absence. The artefact images presented in *Chapter 4* (p. 132), are placeholders for the physical display at exhibition. Included in the exegesis is background information and the analysis on each artefact. The background information provides context about the artefacts that is not included comprehensively at the exhibition. After viewing the exhibition, reading the rest of the exegesis can follow, from the *ARTefact Configuration and the Engagement with Research Questions* section on page 189.

To summarise, practice-based research involving artefact and exegesis is an effective method for academic research, to create a synthesis of computer-generated and analogue imagery. A series of artefacts demonstrate Shinkyuu Art as a new arts practice and medium. This doctorate uses blue intently as a frame for the works. It ascertains the application of analogue and digital blues through a lens. The artefact process contributes to new knowledge, linking the artefacts to written work/exegesis. In the following first chapter, a literature review on specific mixed media art is explored, locating the gap and potential for Shinkyuu Art as a research focus.

Chapter 1: Art <-> Style

In the introduction to this exegesis, I defined and established Shinkyuu Art medium and practice and the methodology of this doctorate. This doctorate is the first of its kind, contributing original knowledge through the development of this new fusion medium. The following first chapter reviews literature surrounding a pre-existing mixed media called Tradigital, then suggests literature suitable to enable the development of Shinkyuu Art. The gap in the literature surrounding hybrid and fusion media is outlined. The exegesis does not focus on art history, which is already well documented. The exegesis does however pinpoint specific art movements and artworks that are relevant to this doctorate in terms of Shinkyuu Art.

Literature Review

The Evolving Nature of "Art"

A chronology of Western art, noting the reifications and simplifications encircling the word 'Western', highlights a range of art movements that adapted to and influenced their period. An example is Dadaism—their provisionally "anti-art" is now classified as art despite use of "readymade" items (Richter, 1965; Stefan, 2010). Fauvism, was once described as unpleasant, and an "orgy of pure tones", that contrasted Impressionism ideals (Vaucelles, 1905; Edwards & Wood, 2004, p. 39). Bauhaus brought an acceptance of design and craft as art, although not without rebuff (Dominiczak, 2012); and Andy Warhol's "Pop" art in the 1960s further dissipated borders between "high art and popular culture" (The Art Story Contributors, 2010, Key Ideas section, para. 3). Street Art became art, from beginnings in graffiti, through artists such as Jean-Michel Basquiat (Saggese, 2014), and Banksy, whose self-destructing work famously sold at auction (Busby, 2018; Martin, 2018). Many of these movements were uncategorised as art until later in history (Davies, 2015), when society could accept them (Novitz, 1996). History demonstrates art is varied. It is beyond the scope of this doctorate to portray a complete art history; this doctorate focuses on the new fusion media called Shinkyuu Art and the branch of hybrid media it emerges from.

What constitutes art has changed with time (Harris & Zucker, ca. 2014). As technology integrates with arts culture (Cotter, 2009), so does the influence of digital technology on art (Hartman, 1997; Hazan, 2001; Schminke, Krause, & Lhotka, 2004; Gere, 2006), and its entwining in society becomes commonplace (Fisher, 2019). For example, transportable

watercolour paintboxes (Finlay, 2002), and collapsible paint tubes, enabled painting outside the studio (Callen, 2000; Finlay, 2002); cameras lead to photographic arts and film (Newhall, 1982); accessible computers and programs brought forward digital art and multimedia (Franke, 2012; Franklin, 2012); and certainly, the creation of synthetic and artificial pigments throughout history enabled wider application of colour (Varley, 1980; Finlay, 2002; Barnett, Miller, & Pearce, 2006). Art has evolved alongside digital technology, with "an intimate connection" where future possibilities utilising "computer and other electronic devices will be exploited in ways that are even more daring than they have been thus far" (Barone & Eisner, 2012, p. 21).

Media arts is a recently established art medium (Gere, 2006; Jansen, 2019), utilising the computer "as a tool of infinite algorithms . . . [providing] artists with a new form of expressing the material and imaginary worlds" (Fisher, 2019, p. 63). Innovative new artworks, such as digital tactile installations, were created to satisfy a lack of tangible experiences in digital realms (Jansen, 2019). Shinkyuu Art was created in the same vein—it fulfills a lack of tangibleness in the process of multimedia creation by combining other more physical or traditional media. As stipulated by curator Peter Larocque, using materials and technology in new ways is innovation—"[stretching] the bounds of technology [and] what a material is capable of" (Wright, 2016, Stretching the Limits section, para. 7-9). The existence of fusion media such as Shinkyuu Art is possible due to art's evolution alongside technology. This doctorate is a continuation of that evolution.

Providing an original name—such as Shinkyuu Art—to describe something new is commonplace. Georges Méliès stumbled upon "stop motion" or "substation splicing" for film in the late 1800's (Ezra, 2000), and more recently, David Hockney termed "joiners" for his photo collage method (Melia, 1995; Hodsdon, 2014). "Labpunk" was coined to describe "wearable art" conceived through a collaboration of art and science (Milroy, Wegener, & Holmes, 2015). Such contributions helped define art methods. As specified by Marshall McLuhan, "[t]he artist picks up the message of cultural and technological challenge decades before its transforming impact occurs" (as cited in Schminke et al., 2004, p. 152). In other words, the artist is willing to experiment with new technology prior to its convention. For example, the *Sonic Babylon* "mobile application and overarching creative project was clearly ahead of its time", connecting physical spaces with interactive digital soundscapes (Barclay, 2017, p. 22). George Fifield explains this concept through the mixed media printmaking processes and techniques used by artists Schminke, Lhotka and Krause:

> The Arts and Crafts movement of the late nineteenth century . . . culminated in a successful synthesis of mass-production and hand-crafted methods . . . That result is similar to the message of this book: how artists can bring together the old and the new, retaining the finest qualities of each to best tell their tale . . . Watching how artists approach new technology is a lesson in what will come next. Already, photographers, printmakers, and video artists have journeyed from the analog [sic] realm into a digital universe. (Schminke et al., 2004, p. 152)

This synthesis of media is beneficial as each medium has unique capabilities that can enhance or support another. Consider for instance, the fading colour of paint: a digital photograph will, to an extent, retain the original colour long after the paint has faded (Everts, 2016). Van Gogh's paintings today, are different colours to what was originally painted due to fugitive pigments (Connor, 2016; Everts, 2016). The digital photograph of his paintings is a duplication representing only a fraction of its essence, and viewing something digitally is not the same multi-sensory experience as it is in person (Lilley, 2015). However, digital technology also enables new methods of restoration, "fluidity", "constructability", and "idea exploration" (Brown & Sorensen, 2009, p. 154). Works can be altered through digital methods without directly changing physical artworks (Ella Hendriks, as cited in Everts, 2016, Digital Restoration section, para. 2). Van Gogh's fading paintings were restored using this mixed method (Everts, 2016). Similarly, the Buddhas of Bamiyan statues were also digitally repaired—3D images showing their original appearances were projected onto their damaged foundations (Petzet, 2009). Although not a reparation in the context of these prior examples, the immersive soundscape experiences by Barclay (2017) relating to climate change, sought to encourage compassion among humans. These meditative soundscapes allowed audiences to reconsider their interactions with the environment, through a combined digital and physical experience (Barclay, 2017). In these examples, neither digital nor physical artworks can exist without the other. Van Gogh's paintings exist as two separate articles—the digital image, and the physical painting. The Buddhas exist as two articles combined into one. The soundscape is both physical place, and digital counterpart. All are an example of mixed media, utilising analogue, and computer-generated methods.

Indeed, it is beneficial to combine media to achieve certain goals. Artist Chris Orr uses it to his advantage by depending on more reliable older machinery, in combination with speed-efficient digital technology (Frater, 2008). Digital alternatives can provide new ways of viewing and sharing physical artefacts (Milroy, Rozefelds, Coghlan, Holmes, & Hocknull, 2015).

Technology advancement creates "new opportunities for exploring" (Barclay, 2017, p. 21). Both digital and traditional technology have individual benefits and disadvantages.

Tradigital

Tradigital Origins

It is unsurprising that digital and traditional media would combine over time. The discrepancy is with where a particular mixed media art, named "Tradigital", comes from. Tradigital is a portmanteau of "traditional" and "digital", collectively broadcast in literature as pioneered by Judith Moncrief. However, the academic literature is uncertain.

Judith Moncrieff and Helen Golden co-founded art firm *Tradigital Fine Art* and were some of the founding members of *Unique Editions* in the 1990s (Whitehouse, 1996; Yeich, 1999; Gollifer, 2000). Along with those in *Digital Atelier*, including Dorothy Simpson Krause, these artists "are all what could be termed as 'tradigital artists'" (Gollifer, 2000, p. 234). The *Unique Editions* artists were not referred to as Tradigital artists by Whitehouse (1996), however are in an article by Zimmer (1996), written three months apart in February and May, respectively. The *Digital Atelier* artists: Golden, Bonny Lhotka, Moncrieff, Karin Schminke and Krause, are not categorised as Tradigital by Protzman in 1997, nor are the *Unique Editions* artists according to Steinberg in 1998. In a book authored by Schminke, Krause and Lhotka, foreword writer Mary Ann Kearns mentions that *Digital Atelier* artists "combine their expertise in conventional media techniques with digital imaging to produce original fine art and editions", however Tradigital is again omitted (Schminke et al., 2004). Zimmer's (1996) article is the earliest dated source found publicising Tradigital, and quotes Dorothy Krause saying, "I have come up with the term 'tradigital' for my approach to art making, combining the traditional with the new" (p. 1). A more detailed definition for Tradigital was provided by Sue Gollifer (2000) examining Krause's work:

> the word 'tradigital' to describe works that bridge traditional and digital worlds. A synthesis between new digital technological tools and traditional media such as photography, etching and drawing or printed out onto pre-textured canvas or other substrates, which are then painted, collaged, or otherwise worked to enhance their expressiveness and repudiate the flatness of the digital output. (p. 234)

It could be assumed that Krause pioneered the word Tradigital, however sources indicate otherwise. First, Lhotka, (previously mentioned as a founding member of *Unique Editions* and *Digital Atelier*), suggests "(Judith) Moncrieff coined the term "tradigital media" to describe [the] merging of traditional and digital tools and "tradigitalism" as a name for [the] emerging movement" although this information is now archived (Lhotka, 2015, Unique Editions section, para. 2). Schminke et al (2004) confirms the personal websites of Krause and Schminke are authentic, however Lhotka's website updated sometime between 2017 to 2018, and no longer contains any information on Tradigital (B. Lhotka, personal communication [website], accessed February 2, 2017).

Secondly, despite literature associating Krause with Tradigital (Gollifer, 2000), or quoting Krause describing her own work as Tradigital (Zimmer's 1996), Krause does not refer to being a Tradigital artist on her personal website (Krause, n.d.), nor in her published work *Digital Art Studio* (Schminke et al., 2004), or in communication. Indeed, Krause insisted: "I've never used Tradigital to describe my work, it's usually been described as mixed media and often includes a reference to the other materials or processes" (D. S. Krause, personal communication [Email], August 12, 2018). Krause also reaffirms that "[Tradigital] was coined by Judith Moncrieff, who died in 2001. Judi[th] was a student of mine at Massachusetts College of Art and we worked together as Unique Editions, which also included Bonny [Lhotka] and Karin [Schminke]" (D. S. Krause, personal communication [Email], July 20, 2018).

There are in fact, no academic records stating when precisely Moncrieff started practicing Tradigital Art—only personal communications. Much of the literature surrounding Tradigital origins with Moncrieff is vague, undated, and thence unreliable. Due to this lack of literature, some sources remain included in this review and are discussed later in more detail. One such example of unreliable literature is online technology dictionary *Techopedia Online,* which details Tradigital as "the melding or combination of the traditional and computer based (digital) methods used to create something", and a medium previously taught by Moncrieff (para. 1). This same rhetoric is on *Wikipedia* and other open-edit websites echoing the same text.

As of January 2021, a *Factiva* search for keywords "moncrieff" and "tradigital" returns zero results; and a *Google Scholar* search returns nine. With "Moncrief" (a spelling error)—four *Google Scholar* results, one a curriculum vitae, and the rest duplicates. This repeated conference paper suggests "Judith J. Moncrief" did indeed "coin" Tradigital: "(The molding

[*sic*] or combination of the traditional and computer based (digital) methods used to create something)" (Studdart, Haywood, & Doncheva, 2017, p. 405). However, the paper lacks references to verify its argument. My doctoral research is not suggesting Moncrieff's status as Tradigital pioneer is in question but raises a lack of academic verification for this claim. These composites and unrefereed entries require further scholarship and authentication.

There are other sources and grey literature (such as exhibition pamphlets), which mention Tradigital explicitly. This literature is activated in my exegesis. Golden, who worked alongside Moncrieff (Whitehouse, 1996; Protzman, 1997; Gollifer, 2000), also makes claim to Tradigital Art. Golden expresses (undated) on her personal website that: "computer technology has morphed [me] into a mixed media/digital fine-artist who combines the use of the new digital art-making tools with traditional ones such as etching, painting and photography [and] I call the hybridized process 'tradigital' art" (para. 2). This statement proposes a degree of ownership; however, it may be misunderstood out of context. In another example, Cheregi (2018) suggests a digital agency Creative Director had invented "the 'tradigital' concept" and that "future communication will be traditional and digital . . . a mix between them" (p. 298). However, it is paraphrasing what the Creative Director stated.

Another case is found in Spence (2018), where he refers to "Mrva-Montoya's phrase, 'tradigital'" (p. 7) . When read without the primary source, it suggests Mrva-Montoya invented the phrase, however she lays no claim to it in the primary article specified (Mrva-Montoya, 2015). Indeed, some of the literature mentioned in this source may have passed unbeknown through secondary, tertiary, or more sources, or have been paraphrased, misquoted, or misconstrued outside its original circumstances. Both Golden and Moncrieff however, did exhibit and workshop Tradigital together as early as 1997 (Dorosh, 1997). Another source suggests the name Tradigital was coined by *all* members of *Unique Editions* "to describe their own work - a blend of traditional and computer techniques" (Hartman, 1997, para. 7). The same is implied in a second article by Miller (1998), because the process was difficult to define without a name. Regardless of Tradigital's origins, it can be assumed that most of the dispersion for Tradigital Art has been through exhibited artworks and word of mouth. For example, artist Yvonne Jones is quoted saying Tradigital is "[h]er favorite [*sic*] digital art method" (Greene, 2003, p. 5).

Krause suggests Tradigital was created "at the Smithsonian" (D. S. Krause, personal communication [Email], August 12, 2018). Presumably this is the *Smithsonian Institution*

museum mentioned in Protzman (1997), also known as *Smithsonian American Art Museum* or *National Museum of American Art* when Golden and Moncrieff were Artists-in-Residence (Schminke et al., 2004). However, the archives of the *Smithsonian* are incomplete, with only one archived artwork by Moncrieff available, and it is not described as Tradigital (Smithsonian American Art Museum, 1997).

Bonny Lhotka, a co-founder of *Unique Editions*, has also been referred to as a Tradigital artist by Julie Miller (1998). The Tradigital definition written by Miller (1998) is "a '90s way of talking about mixed media, more specifically, a way of describing the mixing of traditional studio work, such as photography, with digital technology" (p. 9). In this article, Lhotka described her work as "continually invent[ing] new ways to use old media" (p. 16). Her work uses textural elements, and Miller explains the images are printed on different surfaces such as wood and cloth, utilising different techniques, to avoid "computers produc[ing] flat, sterile-looking images" (p. 41). Lhotka's work would certainly fit into the definition for Shinkyuu Art in regard to the combination of media elements, the texture, and use of inventing *new* ways with *old* media (see page 18).

Gollifer, Krause and Lhotka's definitions suggests there is a focus on textural elements in Tradigital Art, comparable to Shinkyuu Art defined earlier. However, another Tradigital definition by animation director Jeffrey Katzenberg, implies that Tradigital is instead "a seamless blend of two-dimensional and three-dimensional animation techniques", implying a lack of distinct texture (Doherty, 2004, para. 2). Katzenberg also infers he invented the name Tradigital for "hand-drawn animation" with "state-of-the-art technology to create a film that is the best of both worlds" (Calloway, 2002, p. 19). Katzenberg's naming choice is described as "cleverly dubbed" by Mervis (2002, Spirit section, para. 4), and "bravely" by Kerh (2002). Horwitz (2002) says Katzenberg "coined the word 'tradigital' to describe the process of layering traditional drawn animation with computer-generated images and special effects in nearly every frame of 'Spirit'" (Horwitz, 2002, p. Co1). It could be argued that Katzenberg invented the word for animation use; however, he cannot be the originator, as these sources date after previously mentioned definitions. Whether the term originated with Katzenberg or not, it is apparent Tradigital has been used more than once within the art and animation industry. Tradigital was also described as "a hybrid of traditional and CGI animation" by Schumacher (as cited in Cohen, 2002, 4:38-4:44).

Extrapolating on Katzenberg's definition, Schumacher expresses that Tradigital animation:

couldn't look flat [because] computer work has a sculptural 3-D quality that . . . hand-drawn animation must emulate. 'The technique needs to be enriched,' he said. 'The audience now wants more than a flat look. But you can make traditional animation that looks just as dimensional as CG' . . . (Kitchener-Waterloo Record, 2002, para. 15).

This Tradigital definition is aligned with Gollifer's (2000) aforementioned definition on removing "flatness" by encouraging three-dimensional form. However, as discussed by Katzenberg in Doherty (2004), Tradigital animation is "seamless", which is also underlined by his colleague Kelly Asbury suggesting Tradigital is "more invisible than people are used to" compared to average 3D work (Wloszczyna, 2002, para. 4). It is seamless and does not seem to require distinct textures. Another animation source, Tony White, echoes the sentiment that tradigital is usually a blend of 3D and 2D, by labelling more traditional 2D animation as "traditional/tradigital 2D animated" rather than just simply 'Tradigital' (Williams, 2018, para. 6; White, n.d., para. 1). White "seeks to *preserve*, *teach* and *evolve* the art-form of traditional animation in this digital age" which suggests a combination of traditional and digital animation, however, they are not explicit about this (White, n.d., para. 1, [original emphasis]).

As an aside, printmaker Chris Orr is yet another artist claiming to have "dubbed 'tradigital'", creating an education curriculum over ten years featuring media and "cross-overs" between traditional and digital (Frater, 2008). A "master of the 'tradigital' according to author Frater (2008), Orr is quoted saying "we're interested in the dialogue between traditional printmaking and the digital realm, and the many hybrids that might emerge" (Frater, 2008, para. 2). Chris Orr retired after the exhibition mentioned in the article. Yet again, it is uncertain if Orr was the original creator of the word Tradigital. It is, however, unmistakable that many artists came to the same conclusions when it came to creating work in digital and traditional environments—to combine the two and call it Tradigital. Biryukova, Gaevskaya, Alexandrovna, and Nikolaevna (2017) were right to suggest that despite "wide dissemination of the term, theorists of art do not have a common idea about the process of creating [tradigital]" (p. 155).

Tradigital Without Tradigital

In the same year as Katzenberg's 2004 definition, Schminke, Krause and Lhotka published *Digital Art Studio,* a record of instruction and techniques on combining inkjet printing with traditional art. The book does not mention or describe or mention any work as Tradigital even when discussing digital and traditional combinations. The book's methods utilise photography

and printing as their digital elements. These technologies have advanced since then, retiring such issues as "pizza wheels" when printing (Schminke et al., 2004). The often-textural combinations of digital print and traditional medium in the book provides insight into what Tradigital artwork could look like, were it defined as such. Conversely, the artworks displayed in *Digital Art Studio* do not match the definition for Shinkyuu Art, as only marginal digital characteristics are utilised. Shinkyuu Art today, would naturally gravitate to more recent technology and digital methods, with more even ratio of traditional to digital techniques. What *Digital Art Studio* has in common with Shinkyuu Art is the combination of 'old' and 'new'. As reflected by Mary Ann Kearns, the authors "are united by their fearless attitude toward blending new and old technologies" and "[e]quilibrium balances their juxtaposition of old and new" (Schminke et al., 2004, p. 8).

Although the work shown in *Digital Art Studio* (2004) is not classified as Tradigital, it does provide insight into the traditional/digital mixed media process for print. There is keen focus on the methods involved, which Kearns describes as "an art in themselves" (as cited in Schminke et al., 2004, p. 8). The different art backgrounds experienced by the authors provide "a rich repertoire of ingenuity" to create "the mixed media methods . . . [and] define and refine original printmaking techniques" (p. 8). *Digital Art Studio* (2004) was published during a time when inks were less permanent and printing on fine art paper uncommon—"inkjet-printed images were both physically and visually flat" (p. 11). With such restrictions, the authors' interest was in the combination of digital and traditional, as inscribed in the artists' biography section. Schminke explains their work is an "integration of digital tools and traditional art media and techniques" with layered print techniques (p. 160); and Lhotka "invents tools and process to create art [and] illuminates the connection between life and death, technology and the human spirit" (p. 160). Krause is a "painter and collage maker who uses the computer as her primary art-making tool ... [combining] the humblest of materials-- plaster, tar, wax and pigment--with the latest in technology, to evoke the past and herald the future" (p. 160). All artists have a background in traditional fine art and digital experiences, resulting in their decisions to combine media (Schminke et al., 2004).

Digital Art Studio highlights aspects this doctorate believes should be inherent in Shinkyuu Art. The preface author Joann Moser suggests, "the real potential of the medium . . . lies in the successful marriage of the technique and expression, so that qualities inherent to the medium are central to the concept of the work of art" (as cited in Schminke et al., 2004, p. 9). A

combination of digital and traditional medium showcases "the best of both worlds" as described by the authors:

> You can utilize the wide range of textures and surfaces available to the mixed media artist while taking advantage of the precise image control available to the digital artist—and along the way, you can even preview how your final image will look. (p. 57)

Although *Digital Art Studio* does not name its work as Tradigital, like other artists, the artwork would be accepted as Tradigital based on definitions mentioned earlier. Arguably, the author-artists may have chosen not to associate themselves as Tradigital for this book. Lhotka, although a Tradigital artist as cited in Miller (1998), did not describe herself as such in the book. As previously revealed, although her website used to contain Tradigital descriptions, it is no longer being updated (B. Lhotka, personal communication [website] accessed February 2nd, 2017 and October 9th, 2018).

Tradigital as Multiple Definitions

Despite conflict of origins, Tradigital work is being produced. In 2009, a Tradigital Fine Arts course was introduced in the Philippines. Its description is prominent to this doctorate and thus is included in full. It was:

> [an] innovative fine arts program which combines both the traditional method of art composition and the creative application of latest digital computer technology . . . art evolves and therefore, should keep abreast of the changing times, where traditional and digital methods synergize, where artistry and creativity are not dependent on any programmed software and technical designs but on original concepts and actual application by the artist. ("Here's what's hot and it's called Tradigital Fine Arts", 2009, para. 2)

This definition is noteworthy for its emphasis on using the latest digital technology; the acknowledgment of art evolution in changing times; and on the application of the artist— many characteristics that are comparable to the Shinkyuu Art definition (see page 18). Australian educator Cathy Hunt (2016) also uses "tra-digital" techniques in her visual arts classrooms through "mixed media workflows". It appears well-established in education, with some educators progressing to "transdigital" instead of Tradigital, to describe "combining traditional art and digital art [using] digital tools to transform learning, experience, and

product" (Fuglestad, 2019, p. 43). In one of Fuglestad's (2019) examples, digital animation is combined with physical drawings and light. This process is similar to Shinkyuu Art processes.

Some websites delegate Tradigital Art categories, such as *Fine Art America* and *RedBubble.* Tradigital artists Gurgel Segrillo, David Cowell, David Hubbard, and Robyn Peck, publish their work online. Cowell's definition of Tradigital is "traditional themes and compositions produced in a symbiosis of modern technology and freehand painting skills [and] marrying traditional painting techniques with the versatility of digital art" (Hello Kingsbridge and South Devon, 2017, para. 1, 3). Hubbard's definition is "a blending of the words 'traditional' and 'digital' [and] likewise a mixture of old and new. An artwork is considered tradigital if a significant step in the process of creating the artwork was performed using digital technology" (Peck, 2014, para. 1). Peck (2014) separately reaffirms this by explaining it "combine[s] traditional and digital methods and media" (para. 2). These definitions are comparable to past Tradigital definitions, and again to the definition for Shinkyuu Art. A concern with Cowell's definition, however, is the specificity of requiring freehand painting. Hubbard's definition is closer to this doctorate's definition for Shinkyuu Art, but suggests digital technology is a primary requirement in the process, placing less importance on equilibrium between digital and traditional media, which Shinkyuu Art attempts.

Tradigital definitions in the local Australian community are varied. In 2010, Jane Button reviewed an exhibition, that

> examines important artistic investigations between what we now call 'traditional' fine arts practice and new media technologies. It yields a bridging space in the transition from analogue to digital imaging practices, with reference to both conceptual and technical frameworks. (p. 98)

The show, *A Tradigital Survey*, "survey[ed] the to-and-fro between traditional and digital media", from artists using new media in various ways, "informed by their experience in traditional disciplines ranging from drawing to oil painting" (Rainforth, 2010, p. 15). Button's definition differs from previously mentioned definitions, which used words such as: merging, melding, blend, synthesis, symbiosis, and hybrid. Button's definition, however, suggests Tradigital is a "transition" and "bridging space". It could be argued that Tradigital Art was still emerging at this article's publishing, or that Button was unfamiliar with the term.

This definition variation does occur in another case. Books in series *Tradigital* by Taylor & Francis/CRC Press, use "tradigital" exclusively in their titles, however do not address fusing media as suggested by other definitions (Hess, 2013). For example, in *Tradigital Animate CC*, traditional animation principles are applied or transferred to digital animation but not fused or blended (Brooks, 2017). Brooks (2017) states their "Tradigital workflow makes use of traditional principles and concepts in the digital world with its tools and features to allow for a cohesive combination of the two", highlighting an importance on combining concepts rather than the blending of media (p. 205). Brooks (2017) admits that "the goals you have for your animation will change the approach" (p. 205), however their "hybrid" Tradigital workflow focuses only on transferring technique (Brooks, 2017).

An article by Edwards (2001) does references instances of merging in and with animation. It cites Mark Taylor of Nickelodeon on traditional animation that "may be refined as digital applications impact it" into tradigital animation (The Future section, para. 1). A more recent mention of Tradigital animation is by Rall (2010) regarding Singaporean artists. No Tradigital definition is provided, however its project *Tradigital Mythmaking* is about "defining a methodology to create innovative and original digital content and styles for animation" (p. 6). Rall mentions traditional storytelling (oral) becoming digital storytelling (movies), and how "art and technology move closer and increasingly influence each other" (p. 12). Although many of the animations created by the students look at combinations of traditional medium with digital processes or finishes, the main goal of *Tradigital Mythmaking* is addressing "cultural identity through digital media" and creating new animation art styles, intrinsically guided by cultural art instead of Western art (p. 7). The animators explore ways of combining cultural Asian art *traditions*, into modern animations. It is unclear if Rall associates the "Trad" part of Tradigital as relating to traditional medium, cultural art traditions, or both.

Also involving cultural traditions, Hughes (2017) discusses the Copyright and "protection of Indigenous traditional knowledges in digital spaces" (p. 33) with "'tradigital knowledge,' here referring to the harmony of traditional knowledge and its digital expressions" (p. 34). Hughes does not define Tradigital either, however explains "Tradigital Knowledge" is the application of "traditional knowledge and cultural expressions [and] digital media" in agreement (p. 33). Hughes refers to Indigenous educational video games as examples. This source does not detail whether traditional media are a requirement with digital media. Tradigital is also mentioned in textiles (Spreer, 2019). No definition is given by Spreer (2019); however, textile work examples provide a visual impression of tradigital textiles. Some examples mention little of

any digital/traditional fusion. Others designate the use of both, with Spreer indicating there is a "growing trend of textile patterns inspired by digital art" (p. 26). Such work included 3D weaving technology with digital printing.

Besides the use of Tradigital in art domains, the term Tradigital has also been employed in other fields. As previously mentioned, it can apply to cultural tradition situations (Hughes, 2017). In marketing, it is a communications media approach (Dougherty, 2007); to help improve digital storytelling using traditional storytelling methods (O'Mahony, 2009); to acclimatize online advertising formats (Batko & Szopa, 2016); to describe the viewing of television "delayed or online", and magazines in "print and digital form" (Mallon, 2009, Data Integration section, para. 2). Comparably, publishing books as digital files whilst the "production and design remain driven by print" is also called Tradigital (Mrva-Montoya, 2015, p. 324). These books are principally traditional concepts transferred to digital medium, at least according to the article. Then there's "Tra-digital" "knowledge capture"—documenting the wealth of knowledge from experienced and retiring employees (Lampl, Squires, & Johnsrud, 2004). These examples could situate Tradigital as hybrid media, where "older media, such as newspapers and television, merge with and adapt to the formats, genres, norms and actors brought about by newer digital media" (Mattoni & Ceccobelli, 2018, p. 2).

For journalism, Sid Gissler, according to Sreenivasan (2010), apparently "created a wonderful term" called "'the tradigital journalist'" or "the traditional journalist with a digital overlay" and not vice versa ('Question: You're promoting...' section, para. 4). This specific process alignment is valuable (Sreenivasan, 2010). Such knowledge was factored into this doctorate's creation of artefacts—understanding whether a work begins traditional and finishes digital, or the other way around, or if indeed, it is both.

Returning to marketing, company B Digital says Tradigital is "a revolutionary concept of bridging the gap between traditional advertising and digital social media [and] social media [with] traditional media" (Garcia, 2012, para. 01). Allchin (2012) defines it as "the fusion of traditional and digital. When applied to marketing, it effectively means applying traditional principles of marketing and branding to the digital space" ('Tradigital' section, para. 1). Australian marketer Mark Ritson (2017a, 2017b) also claims to have "invented" Tradigital, publishing similar articles in two newspapers (para. 10; para. 10). In his examples, outdoor companies are moving to digital advertising methods, and initially online companies—such as Amazon—are using traditional approaches instead, such as selling books at a physical

shopfront. Marketing appears to categorise "outdoor" along with "print" and "radio" within a traditional and analogue scope (Tuten & Solomon, 2015, 2018). Company Team SI claim a definition, and trademarked their logo containing "TRADIGITAL" in capital letters ("USPTO Issues Trademark", 2018; Smith, 2018). Although spelt differently in-text, they assert to have:

> been preaching about TraDigital: The Art of Blending Traditional and Digital® before any other marketing firm had the slightest clue that digital was not going to go away, traditional media was not going away and that it is all about a balance of the two . . . [s]ince 2012 . . . (Whitley, 2018, para. 1).

Additional sources reinforce a belief that "Traditional and digital marketing are not enemies; they are perfect for each other when a plan is in place to blend them" ("Introducing TraDigital by Team SI", 2019, Para. 1), again emphasising the word "blend". This definition is the only one found in marketing, at the time of this writing. Tradigital here is a definite "mixture of traditional and digital" (Whitley, 2018, para. 2). By traditional, Team SI places television, radio and print in that category (Whitley, 2018).

Neither Ritson, nor Team SI, are the first to use Tradigital marketing. Earlier literature existed in 2007 (Dougherty, 2007). The introduction of the internet, computers, and telephones, gave rise for a new term of marketing, to "distinguish [Tradigital Marketing] from the traditional paradigm" (Tuten & Solomon, 2015; González-Fuentes, 2016, p. 129). Indeed, a portmanteau combining "traditional" with "digital" makes sense when both are involved, regardless of the field of work it exists within. However, the degree to which it is involved, varies. For instance, traditional principles being applied to online banners and e-mail, is a transfer of skills rather than a fusion or blend of media. Tradigital has also been noted as a middle stage that occurs before a transition to Social Media (digital) marketing (Tuten & Solomon, 2015, 2018). What Tuten and Solomon (2015) indicates, is that there is always a middle stage—called Tradigital—between traditional marketing and digital marketing when both are involved. Tradigital acts as the bridge between two different ways of advertising. Regardless of the amount of traditional and digital involved, this Tradigital middle stage, can undeniably be found in all fields of work, including outside marketing, if the goal is to *transition*.

Team SI's use and information on Tradigital is the most in-depth definition currently found on Tradigital marketing. It includes graphics confirming that their "[m]arketing is blended" ("Introducing TraDigital by Team SI", 2019). Whitley (2018) pinpoints different "TraDigital" marketing plans require different ratios of digital and traditional, and are "highlighted the way

that TraDigital should be highlighted" (Handling of Leads section, para. 4). This proposal is significant for the definition of Tradigital, underlining it is not always an equal balance of digital and traditional, however is "[t]he art of <u>blending</u> traditional and digital" ("TraDigital Marketing Plan", 2019, [some emphasis removed]).

New York advertising agency president Sharon Vogelpohl, is yet another using "TraDigital" for their new "mix of traditional and digital" advertising ("This Week", 2018 p.6). Horn (2018) remarks on Tradigital marketing familiarly, suggesting it is well established at least in Canada. Ritson's articles (2017a, 2017b), also reaffirms its reach, explaining "[t]he well-worn bifurcation of media into digital and traditional is starting to blur and fade in almost every corner of the media world" (para. 9; para. 9). These recent sources advocate to the embedded practice of Tradigital marketing.

In contrast, there is critique of the word Tradigital. Despite apparently inventing it, Ritson (2017a, 2017b) contradictorily views Tradigital as a "stupid word" (para. 12; para. 12). Similarly, Price (2012) who considers Tradigital processes as necessity to advertising media, nonetheless "hates [himself] for writing that word" (para. 15). Other writers agree it is a "cringe-worthy term" (Jo Roberts, as cited in Allchin, 2012, Jo Roberts section, para. 1), a "clumsy word . . . to describe a smoothly integrated process" (Canemaker, 2002, p. A2), "condemnable [and] jargon-mongering" (Tait, 2010, para. 1), and "a truly ugly sound"—"a studio executive with a newly minted buzz word" (Barber, 2002, para. 13).

This literature review reveals Tradigital is applied to various similar and different scenarios. It is a twenty-first century term, that has become broad in definition and general in use. The disjunction of terminology suggests necessity for a divergent or separate term to arise to better define circumstances within art. Tradigital is disliked by some, and there are discrepancies towards whom coined the word in all disciplines. Mrva-Montoya (2015) themselves, advocates for going "beyond the 'tradigital'" at least in terms of books (p. 322). However, this recommendation does not need to be limited to one area. Whether it be books, art, animation or marketing, there is potential for Tradigital to be better defined and utilised within individual disciplines, at the benefit for those who use it.

An existing term that emerged from Tradigital practice is "Postdigital". Australian artist and researcher Catherine Fisher (2019) engages in Postdigital practice—a mixed media that "aligns with tradigital art and a post-media aesthetic" (p. 20). Like Shinkyuu Art, Postdigital combines "digital and traditional tools or media" (p.20). However, Postdigital work focuses on

employing "humanness" (p. 20) and retaining "a deep physical attachment" to the work (p. 67). Fisher's work remains in "cyberspace" and is not considered art by her until it is printed (p.60). Although both Postdigital and Shinkyuu Art media emerged from Tradigital Art origins, Shinkyuu Art is not aligned with Postdigital in this doctorate as they exist with distinct guidelines. Consequently, Postdigital will not be addressed further in this doctorate.

Contemporary Tradigital Art as Shinkyuu Art

Historically, language has adapted and introduced new words into its lexicon to describe the new, the innovative, and the different. Language is contextually resonant. The term umami, for example, is now included in the English language as one of the basic tastes (Ikeda, 1909/2002; Torii, Uneyama, & Nakamura, 2013). Similarly, artist David Hockney termed joiners for his work (Melia, 1995), and Tricia Fuglestad (2019) termed Transdigital for her own. This doctorate investigates contemporary Tradigital Art, defined instead as Shinkyuu Art, to distinguish from other Tradigital definitions (see page 46).

Shinkyuu in Academia. Within academia, Bin Yee Ang's dissertation *Hayao Miyazaki as Auteur* (2013) is the only English academic source found using shinkyuu in relation to art. It includes a translation for shinkyuu and is important to this literature review. Ang examines animation techniques, technology and aesthetics used by Japanese director Hayao Miyazaki, through interviews with his animators. One of the interviews contains the Kanji for shinkyuu (新旧), as seen in the following sentences: "モーションブラーがデジタルで合成されています。動きに関する**新旧**のアニメ技法を比較" (Ang, 2013, p. 129 [emphasis added]). The corresponding English translation of these sentences is: "What do you think regarding this comment by making comparison of **past and contemporary** animation techniques to produce motions? How significantly each *traditional and digital* technique is affecting the aesthetics of the films?" (Ang, 2013, p. 127 [emphasis added]). This interview reiterates shinkyuu as a word for describing the combination of past/contemporary, traditional/digital, old/new, for animation and thus, art. Ang's research supports shinkyuu in use for mixed media art.

There are other sources mentioning shinkyuu written in Japanese. One example refers to "new and used" money bills in its English summary (Masaru, Sigeru, & Toshihisa, 1998). Another translates its title with words "traditional and modern" (Pearse-Smith, 2012). A third uses shinkyuu in line with "new and old" (Kawanishi, 2003). In other languages, a French martial

arts business named Shin-kyuu Dojo described their approach as "traditional and modern at the same time" ("Shin'kyuu Dojo", personal communication [website, translated from French], June 05, 2016). Although social media is a poor source, this information pertains to using shinkyuu as a descriptive for mixed media art, and consequently is included.

Shinkyuu Art Visual Examples

There is contemporary work that pushes the boundaries of hybrid mixed media beyond Tradigital Art. Many of the artworks use heavy fusions of media, with visible textures or layering, and thus can be considered Shinkyuu Art. Many of these examples are animation, as the medium allowed for variations on Tradigital fusion processes. The artists here are not familiar with Shinkyuu Art as a term, as it was being formulated through this doctorate. However, for the purposes of research I have collated them here because I would describe them as part of the genre and category of Shinkyuu Art (see *Shinkyuu as Shinkyuu Art,* p. 19). This section does not attempt to address all existing Shinkyuu Art examples, but rather chronicle work that has influenced the doctoral research.

Figure 5
Gankutsuou - Count of Monte Cristo

[Removed due to copyright restriction]

Note. Reprinted from "Gankutsuou: The Count of Monte Cristo", by M. Maede, 2004. Retrieved from www.madman.com.au/series/home/2911/gankutsuou-the-count-of-monte-cristo

Figure 5, *Gankutsuou* is a Japanese 2D digital animation using layers of physical textures as colour and lines. The textures are distinctly visible and are not blended into the lines. Prior to seeing this work, I had created a similar style with a short animation called *Snowdrop* (see Figure 1). This style of animation remained a source of inspiration that continued into this doctorate's art studies. *Figure 6* is another animation called *The Dam Keeper* which utilises a multitude of mixed hand-drawn and digital techniques using clay sculptures, several animation styles and painted textures (Kondo & Tsutsumi, 2015). Most of the various media used are blended, however texture was re-added through painting and layering images. *The Dam Keeper* shows an innovative process for fusion media. Both these animations can be considered an example of Shinkyuu Art.

Figure 6

The Dam Keeper
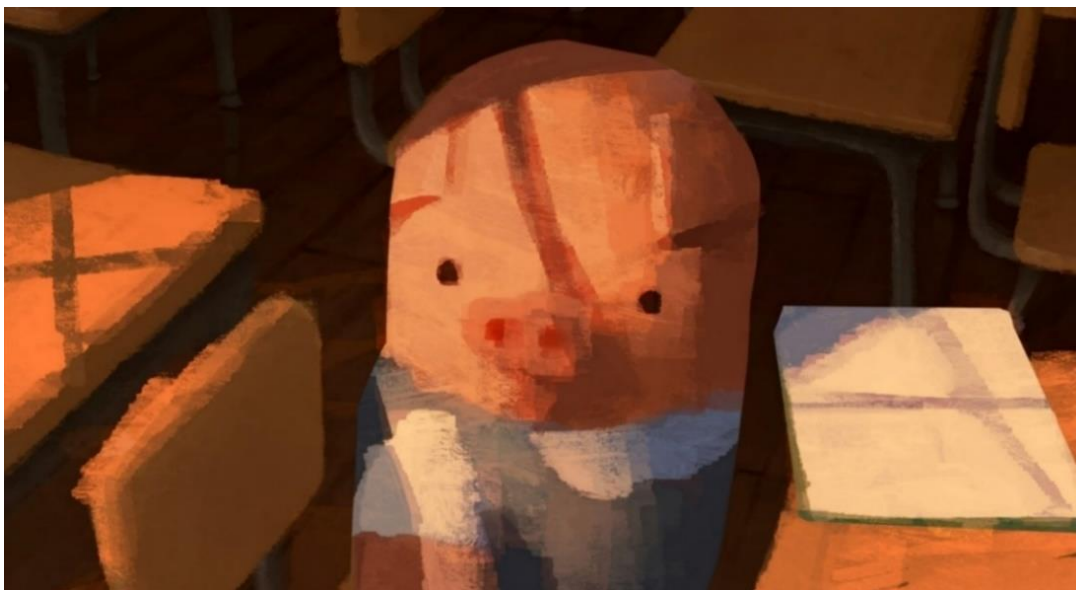
Note. Reprinted with permission from "Gallery" [personal communication], 2014, by Tonko House Inc. Retrieved from www.thedamkeeper.com/gallery [Accessed December 12, 2016]

In *Figure 7*, Alexa Meade shows an example of her painting on 3D subjects, such as humans. To an extent, the painting is wearable art. She then digitally photographs the work making the images appear 2D. The brush textures are distinct, and her work is reliant on technology, conforming to the Shinkyuu Art definition. The idea of using creative and irregular art methods served as inspiration during this doctorate's practice. Wearable art was also considered, although this did not eventuate into an artefact.

Figure 7

Blueprint Revealed

Note. Reprinted with permission, from "Blueprint Installation" [Photograph/Painting], by A. Meade, 2010, retrieved from http://alexameade.com/portfolio_page/classics/

Also involving photography, is *Blue and Others* seen in *Figure 8*. Gee Greenslade's "Photo Illustration" work using objects and sculptures she has modelled and arranged, appear as 2D illustrations when photographed. The photographs are edited into a digital collage of physical world objects. Greenslade also utilises Glitch Art into her work, bringing an extra digital element that is neither precise nor smooth (see Figure 9), and is suitable as Shinkyuu Art. Her work is a revolutionary form of fine art photography that walks along mixed media tangents.

Figure 8

Blue and Others
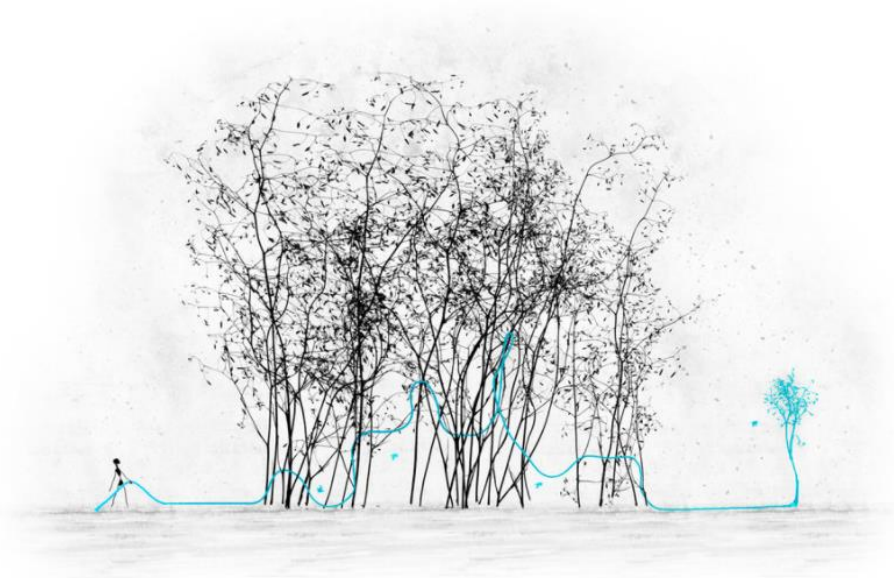
Note. Reprinted with permission from "Portfolio" [Photo Illustration], by G. Greenslade, 2015. Retrieved from www.geegreenslade.com/Portfolio

Figure 9

She

Note. Reprinted with permission from "Portfolio" [Photo Illustration], by G. Greenslade, 2018. Retrieved from www.geegreenslade.com/Portfolio

Figure 10

Paperman

[Removed due to copyright restriction]

Note. Reprinted from "Paperman" [Animation/Still], by Pixar, 2012. Retrieved from www.imdb.com/title/tt2388725/

Figure 10 shows a still image from *Paperman*, which was 3D animation shaded in flat tones, re-animated in 2D and overlayed with graphite texture. It is worth noting that 'flat' digital texture as seen in Greenslade's work and *Paperman*, is still considered texture. In Greenslade's work, the photos are from physical objects, and hence already display natural textures. The glitches seen in *Figure 9*, can also be considered a form of digital texture. In *Paperman*, its texture mimics hand-drawn pencil. *Paperman* director John Kahrs (2012) explains that the animation style "retains that flatness of the drawn line without making it look like it's painted on" (para. 06). He sought to show "rich, subtle motion in the dimensionality of CG" whilst retaining the "flat quality [and] expressive line that comes from . . . 2D animation" (para. 06). *Paperman* is another example of possible Shinkyuu Art.

The *Into the Spider-Verse* animation (see Figure 11) uses borrowed "ideas from hand-drawn techniques" as detailed by director Persichetti (2018), including drawing on every second frame (or animating in twos) for certain parts of the film rather than every frame (Solomon, 2018, para. 11-12). The animation was "rendered" digitally on a computer and then "finalized by hand" (McNary, 2018, para. 6). Persichetti (2018) also specified that the directors wanted the animation to be unique from others. The 2D elements emphasise a comic appearance by removing "lens blur", using "CMYK offsetting", introducing "halftones", and lighting the halftones "because that's old school comic book DNA" according to other director O'Keefe (Chevat, 2018, para. 05). O'Keefe details some of the film's 3D elements, which is not only

animation, but also "true live action cinematography" camera techniques, creating a "juxtaposition" that "means it still feels very real, but if you stop any frame it looks like a [comic] panel" (para. 06). *Into the Spider-Verse* poses an interesting thought in relation to works that are Tradigital.

Figure 11

Into the Spider-Verse

[Removed due to copyright restriction]

Note. Reprinted from "Into the Spider-Verse Gallery Image 01", by Sony Pictures [personal communication], 2018. Retrieved from http://www.intothespiderverse.movie/#gallery [Accessed December 31, 2018]

According to Katzenberg's definition of Tradigital, this animation, with its combination of 2D and 3D elements would be considered Tradigital. The film is a mixture of both. However, it is also entirely digital—there are no analogue or traditional media used. Of course, it would not be categorised under certain Tradigital definitions mentioned earlier such as Moncrieff's (see page 46). However, traditional in animation, can mean traditional frame by frame or "classical animation" (Brooks, 2017; Chevat, 2018), as an example of the word evolving over time with technology progression. If animation is to fit other Tradigital definitions, the definitions would need to be updated to include evolving technology. Additionally, if the work is Tradigital, is it also Shinkyuu Art? By the initial definition, Shinkyuu Art incorporates both digital and analogue processes, which *Into the Spider-Verse* does not seem to. With continual studying of the animation process it may be possible that a link could be found between physical analogue or traditional elements and digital, however none has been found at this current time. Principally, the film visually appears as what this writer considers Shinkyuu Art, however, it does not wholly match the definition.

Words have a history, and it is plausible to suggest "analogue" will also transform. If this is the case, *Into the Spider-Verse* may be considered Shinkyuu Art. Analogue, could mean, a connection between a physical viewer/audience and the screen. In fact, the film included an augmented-reality mobile feature (www.IntoTheSpiderVerse-AR.com). Alternate Reality according to Bonasio (2018) allows for "multi-sensory personalized experiences" (Enhanced Experiences section, Para. 7), that also "[bridges] the Physical and Digital" (Subtitle 2 Bridging section, [emphasis removed]). If the definition for Shinkyuu Art could be stripped back to its essence, which is the combination of 'old' and 'new' art, then *Into the Spider-Verse* does achieve a combination of older and newer animation techniques and styles, whilst also ensuring its two halves are distinctly noticeable. The old or 2D is seen in the halftones, the finishing touches by hand, added text, animation in twos, lines emphasising movement, and the decision to not use lens blur; and the new is seen in 3D animation, live-camera movements, and the technology and skills required to create this new style of animation. *Into the Spider-Verse* straddles the grey area between Tradigital and Shinkyuu Art which is further discussed in *Chapter 4* (see *Differences from Tradigital Art,* p. 192).

Although an animation is made up of moving images, each individual frame can be considered an artwork. This concept is agreed by the directors of *Into the Spider-Verse*. O'Keefe explains that the frames in *Into the Spider-Verse* look like comic panels (Chevat, 2018); and Miller states that they "'wanted someone to be able to freeze any frame of the movie and have it look so good, they'd want to frame it and hang it on the wall'. . ." (Solomon, 2018, para. 19). Consequently, animation was also included in this doctorate's creation of artefacts. Blue is used as a contrast with red for the main character's costume.

Of additional interest to this doctorate, is Tricia Fuglestad's (2019) Transdigital lessons in early childhood education (see previously: *Tradigital as Multiple Definitions,* p. 52). Fuglestad's work with young students encourages a mix of media including analogue and digital, which resonates with the definition for Shinkyuu Art. Although this work is being completed by students, they are conceivably future artists. *Figure 12* from Fuglestad's student shows an example of Transdigital/Shinkyuu work—a brightly lit animated character shines through a physical drawing. This style of mixed media is uncommon and extends beyond existing Tradigital definitions. The definition for Shinkyuu Art was compared to the literature as the doctoral research progressed. The characteristics of fusion media are further discussed with the animated film *Klaus*.

Figure 12

Transdigital Art by Carson 4-4, taught by Tricia Fuglestad

Note. Reprinted with permission from *Exploring Digital Technologies for Art-Based Special Education*, by T. Fuglestad, (p. 51), in R.L. Garner (Ed.), 2019, New York and London: Taylor & Francis Group.

Figure 13

Klaus

[Removed due to copyright restriction]

Note. Adapted from "The SPA Studios 'Klaus' Teaser Progression Shot" [Animation/Still], by The Spa Studios, 2017. Retrieved from https://youtu.be/mjhEW_OlrIg

Klaus (see Figure 13) uses an animation style that is purely two-dimensional, coloured to achieve an appearance of three-dimension. There is no 3D animation involved, and instead, "light and texture to traditional animation" creates its appearance (SPA Studios, 2018, para. 01). *Klaus* is not considered Tradigital by most definitions, as it does not combine traditional medium or concepts with digital medium, nor is it a combination of 3D and 2D animation. When considered as Shinkyuu Art, it equally varies from the definition provided. Fundamentally, *Klaus* is 2D digital animation at its core. It was initially omitted from this exegesis, however, there is something to be learnt from works of anomaly. Visually, the animation gives the appearance it is Tradigital or Shinkyuu Art, yet it is not. This context provides insight and knowledge to what is and is not, fundamentally, Shinkyuu Art. (For more on this question see *Into the Spider-Verse*, p. 64).

Figure 14

The Painted Spirit

Note. Reprinted with permission from "The Painted Spirit", by B. Shaden, 2020. Retrieved from http://brookeshaden.com/gallery/?title=the_painted_spirit

Brooke Shaden's work in *Figure 14*, was the last addition to this review. Her artwork was completed post-research artefacts, however, remains included to highlight the emergence of yet more contemporary fusion artworks. Photography was used as bridging medium between real textures and people, then edited in digital programs. Shaden's progress video also spotlights examples of impulsiveness and creativity as mentioned by McNiff (2013) (see also Appendix B) (Shaden, 2020). Although combined digitally, the textures still appear as distinct physical, and digital, textures. This recognition is partly due to the clarity of the artwork, and own personal experience with the art style and process. My knowledge is supported by Shaden's work-in-progress video showing the areas that are digital (Shaden, 2020). *Figure 14* is a clear example of fusion art that also permeates texture. Photo-manipulation was engaged in some of the artefacts created for this doctorate.

In summary, this literature review frames my original contribution to knowledge, demonstrating the aesthetics of Shinkyuu Art in existing contemporary work. Some of the works include the colour blue, highlighting the existing use of blue colour in fusion art. There is preference among artists to use different terms of Tradigital for describing their work. These terms included Tradigital, Tradigital Art, Tradigital Fine Art, Transdigital and TraDigital. However, there are also discrepancies between the term definitions which causes confusion. Tradigital is used across disciplines adding to the misapprehension of it in the arts. The proposal of Shinkyuu Art as a new art style, specific to fusion media, is beneficial to emerging and contemporary practice. Shinkyuu Art is a medium and practice that can utilise themes, subjects, and motifs, as a part of artwork development. The next chapter reviews the literature surrounding the colour blue as a material, inspiration, and theme for Shinkyuu Art creation.

Chapter 2: Blue

The Shinkyuu Art artefacts engage the colour blue as a framework. As a result, the literature on blue is examined in this chapter. This review addresses blue colour history, pigments, and examples in the arts. The history of colour is extensive and well addressed throughout other literature. Thus, this exegesis explores significant pigments that informed the doctorate's artefacts. The etymology and significance of blue throughout history is so vast, that the focus of this literature review looks at blue in art history as a material. Within Shinkyuu Art, blue can be a combination of both physical pigments and digital colour. This review forms a part of the original contribution of knowledge, presenting an organized presentation of blue history and pigments, in relation to Shinkyuu Art materials.

Literature Review

This doctorate provokes researchers/artists and examiners/readers, to consider the colour blue in Shinkyuu Art artefacts as contribution to knowledge. Colour itself, to quote Pastoureau (2000/2001) "is a social phenomenon. It is society that 'makes' color [*sic*], defines it, gives it its meaning, constructs its codes and values, establishes its uses, and determines whether it is acceptable or not" (p. 10). Subsequently, this doctorate looks profoundly at the author/artist within current society, as a single entity, to gage understanding. Colour perception is always changing and continues to change throughout history (Pastoureau, 2000/2001). For example, Pastoureau (2000/2001) claims blue was "little valued by the cultures of antiquity", however it is "by far the favourite color of Europeans" today (p. 11).

What is indeed accurate, is that the colour blue has captivated researchers, such as William Gladstone, Lazarus Geiger, Guy Deustcher and Jules Davidoff, who have researched the connection between colour perception and colour lexicon (Roberson, Davidoff, Davies, & Shapiro, 2006; GrrlScientist, 2012; Seriñá, 2017). More recent researchers Mehta & Zhu (2009) focused on colour and cognitive performance. Like most colours, blue existed as colour before recorded history. However, blue is the only colour in Isaac Newton's rainbow to receive two shades. The colour blue has a rich history; it is uncommonly seen in nature (Shedroff & Noessel, 2012; Morris, 2013; Fowler, 2014), and thus was the first human-made synthetic pigment (Varley, 1980; Abumrad & Krulwich, 2012; Walton, 2014). It is frequently seen in science-fiction films (Shedroff & Noessel, 2012). Blue itself, was "exhibited in rare beauty, [such] as the blue of the sea and of the sky" and certainly uncommon in natural pigments (Gladstone, 1858, p. 488; Walton, 2014). The introduction of digital technology allows for blue

to be seen on screen using projection instead of pigment (Mehta & Zhu, 2009; Shedroff & Noessel, 2012). Thus, the review must address not only physical pigment, but also colour that exists on a screen. This doctorate contributes to the continual search for new knowledge on colour.

History of Colour

The rainbow as known today was discovered by Isaac Newton. Pastoureau (2000/2001) states that ancient texts do not mention the colour blue at all in the rainbow, because there was no linguistic label for the colour (Varley, 1980). Today, although all the "physical" colours on a rainbow are named, blue is included twice—as both blue, and indigo (Finlay, 2002). Despite indigo portrayed as a dark blue today, Finlay (2002) argues that Newton may have had reasons for including indigo. One suggestion being that indigo in Newton's time could be of any various shades from light to dark. Indigo, in Newton's time, was more of a "dye rather than an actual colour" (p. 376). Even jeans dyed indigo today are of various shades (Pastoureau, 2000/2001; Splitstoser, Dillehay, Wouters, & Claro, 2016).

This doctorate chooses to look at various values of blue hues for this reason. Although indigo itself, does not appear to the human eye to exist on a rainbow, it does exist in nature (see more in *Blue Colourant History,* p. 79). To express as openly as Finlay: "Should Indigo be here at all, having a separate chapter to itself? I'm glad it is, glad I didn't have to squash its stories apologetically between blue" (p. 374). As a contribution to knowledge, opening the range of blue investigated is beneficial to colour literature. This is a discussion of blue, without apology, as an impetus for Shinkyuu Art and its accompanying research innovations.

History of Blue

The Sky. The symbolic knowledge that the sky is blue on clear days (Shedroff & Noessel, 2012), or "a light cerulean blue" according to Varley (1980, p. 59), is preserved throughout this doctorate. Due to shorter wavelengths, blue light appears more visible than other colours, creating a blue sky or blue haze on distant objects (Coles, 2018). The scientific reason why the sky is blue is described briefly as follows:

> The Earth's atmosphere is responsible for the colours of the sky [. . .] [T]hese particles
> approximate to the wavelengths of blue and violet light, so they absorb and reradiate

these wavelengths, scattering them in all directions. This scattered light colours the
sky blue. (Varley, 1980, p. 23)

Despite the vastness of the sky, blue was one of the last colours to receive a name in numerous
ancient cultures (Geiger, 1868/1880), and in some instances, only after the colour had been
created (Berlin & Kay, 1969/1991; Walton, 2014). Generally, blue did not appear in paintings or
dye until humans learned "how to reproduce and use it" though it is present in "natural
elements that go back almost to the earth's formation" (Pastoureau, 2000/2001, p. 13). The
Ancient Egyptians had various natural stones in blue colours—of their turquoise jewels, "the
most precious stones are the deep blue of the summer sky . . . a heavenly colour" (Varley, 1980,
p. 65). Western society protestant religions also agreed with this notion: in approximately 16th
Century, blue was "an honest and temperate color [sic] evoking the sky and the spirit"
(Pastoureau, 2000/2001, p. 99).

In Homer's *Odyssey*, neither blue skies nor blue itself appear in the text according to William
Gladstone (1858). Modern translations of *Odyssey* (Samuel Butler translation) transcribe blue
in, despite it not being a direct translation of blue in Greek (Gladstone, 1858; Abumrad &
Krulwich, 2012; Hoffman, 2013). Likely this was the translator's choice, and can be considered
problematic as it changes the meaning of the original word, which correlated more to such
factors as "matter, light, luminosity, density, and quality" (p. 18). Research by Jules Davidoff,
regarding the Himba tribe who are familiar with different tones of green but not blue, has also
confirmed that "without a word for a colour, without a way of identifying it as different, it's
much harder for us to notice what's unique about it" (Loria, 2015, So Before We Had A Word
section, para. 9). This theory can be applied to Ancient Greek art, which "was exceedingly rich
in colours, including blue" but lacked a "colour vocabulary" (Varley, 1980, p. 50).

Lazerus Geiger (1868/1880) found blue remained unmentioned in many ancient texts,
including the bible in original Hebrew (Abumrad & Krulwich, 2012; Loria, 2015), and the
Quran, despite mentions of "the heavens" (p. 55). Geiger and Gladstone considered the sky to
be blue although these texts did not. Gladstone (1858) wrote of the sky: "Homer had before
him the most perfect example of blue. Yet he never once so describes the sky" (p. 483), and
"blue of the sea and of the sky" (p. 488). Geiger (1868/1880) agreed with this notion,
transcribing "only the fact that the sky is blue could never have been gathered from these
poems by any one [sic] who did not already know it himself" (p. 50). Translated again in 2012,
"there is only one thing that no one would ever learn from those ancient songs who do not

already know it, and that is the sky is blue" (Abumrad & Krulwich, 2012, 53:46-53:54). Earlier still in history, Cennino Cennini (1437/1899) described natural ultramarine as a "sky blue . . . the blue depths of an un-troubled, cloudless sky", proving the sky was known as blue for many centuries to this day (p. 259).

Blue was uncommon in most ancient art. Pastoureau (2000/2001) found paintings from ancient Roman and Greek art shows blue used primarily as backgrounds (pp. 13, 23, 25, 27). He claims this is due to ancient Romans having negative associations with the colour because of "barbarian" adversaries (pp. 11, 25, 26), whom dyed their bodies blue (p. 26). He also claims ancient Greeks did not value blue—it was "little appreciated" (p. 17) and "less prized" (p. 23). Ancient Britons, indeed, have been recorded as painting their bodies blue during battle (Finlay, 2002), although this is arguable as to whether it was blue paint or copper with other pigments (van Der Veen, Hall, & May, 1993). It is also arguable that blue backgrounds were representations of the sky, and thus statements of blue's value are unwarranted in Pastoureau's work. Other literature states blue was "used profusely through the late Roman period to create fields of blue on wall paintings, cartonnage, and pottery" suggesting an affinity for blue (Ganio et al., 2015, p. 2).

Geiger (1868/1880) suggested that the Ancient Greeks in Homer's *Odyssey* may have referred to their colours in terms to darkness and brightness "partially affected perhaps by ideas drawn from the metals" (p. 489). Varley (1980) alternately specifies that it was "more concerned about the action of colour rather than the labelling of hues" (p. 50). Berlin and Kay (1969/1991) reiterate however, that the "Greeks saw differences in brightness" (p. 135), and Bertrand according to Bruno (1977), proposes blue was not a colour but a "darkener". This idea is not unfounded, as confirmed in more recent publications such as Alexander (2013) , Hoffman (2013) and Coles (2018) . The emphasis was not on colour itself, but on its tone/shade. Gladstone (1858) and Geiger (1868/1880) endorse ancient cultures may have been unable to perceive or distinguish colours, however this is generally now dismissed (Berlin & Kay, 1969/1991). The standard modern Greek lexicon has "two fundamental colour terms to describe light and dark blue" (Androulaki et al., 2006; Casaponsa & Athanasopoulos, 2018, Language and Colour section, para. 1).

By looking at colour terms from lexicons of other modern cultures, such as Japan, this doctorate is provided more examples of colour informed by light. Pastoureau (2000/2001) suggests cultural perception influenced the names of colours. In Japanese perception, colour

has additional qualities such as "full or shiny" with "shades from the most somber [*sic*] to the most luminous" (p. 175). Pastoureau (2000/2001) was referencing the colour white in Japan. Although he does not provide references, he is accurate in saying there are Japanese words for specific shades. The word "mizu" (water), is used often for light blue however there is no English equivalent, presenting a "fundamental difference between it and the Japanese language in the lexical representation of color [*sic*]" (Kuriki et al., 2017, p. 8). Mizu is a newer term introduced to the original Japanese colour lexicon (Berlin & Kay, 1969/1991; Kuriki et al., 2017). In non-western cultures, there can be an importance on fundamental knowledge of colour—that is, whether it is "dry or damp, soft or hard, smooth or rough" (Pastoureau, 2000/2001, p. 175).

Adjacently, Medieval Europe had once considered "intense, heavily saturated color . . . as closer to another bright color than it was to a weaker, less concentrated tone of the same color [*sic*]" such as bright red with bright blue (Pastoureau, 2000/2001, p. 75). This association changed over time, and unlike Greek or Japanese, the English lexicon did not accrue personalised names for certain dark or light colours (Pastoureau, 2000/2001; Androulaki et al., 2006; Kuriki et al., 2017; Casaponsa & Athanasopoulos, 2018). Regardless of the authenticity of Ancient Greek colour perception, it gives plausible explanation for why Homer may have referred to "Cyan" as "the deepest black" (Geiger, 1868/1880, p. 53), and the sea as "wine" (Varley, 1980; Alexander, 2013; Hoffman, 2013). Moreover, poets may choose to decorate words, as Allen presents: "if it have a tiny infusion of blueness he says it is sky-faced" (as cited in Berlin & Kay, 1969/1991, p. 138); and "perceptual abilities and naming behaviour may vary independently" (Berlin & Kay, 1969/1991, p. 139). Perhaps the sky was named based on its brightness. This doctorate does not continue examining these arguments; however, it does recognise the possibilities. The literature on the sky, and whether it is blue or not, is largely inspirational for this artist-researcher. Both the sky and sea make an appearance in some of the doctoral artefacts.

    Food and Drink. Blue food and drink were both an inspiration and fascination for this doctoral research. Although an artefact did not emerge that was influenced by blue food and drink, there was an active incentive to both purchase and consume blue food, drink, and other material items, during the doctorate. It is possible that the information following, may have influenced the artefacts, and thus remains in this review. For example, a skull-shaped

glass bottle was filled with blue curaçao when the original bottle had leaked; this event initiated thoughts on blue and death and influenced an artefact (see *IKBSoD*, p. 186).

Blue is unnatural in many foods (Morris, 2013), however it is used more commonly today due to the addition of "naturally-sourced colouring agents" *(Spence, 2018b, p. 1)*. Such naturally blue sources include peaflower and blue spirulina *(Spence, 2018b),* and anthocyanin found grape skins (Shaw, 2018). The existence of anthocyanin as a natural pigment is well documented (Stirton & Harborne, 1980; Whitmore & Cass, 1988; Kumar & Tripathi, 2011; Abbott, 2013; Newsome, Culver, & van Breemen, 2014; Derrick, Wright, & Newman, 2017). Spence (2018) has found blue drink is more readily accepted as consumable than blue food. However both can be "discombobulating/con-founding the diner/drinker rather than enhancing their experience" (p. 2). As an example, the recipe for white wine with blue methylene created by "Futurist" cook Filippo Marinetti (1932/1989) is considered—"a serious joke" (p. 7). This result is unsurprising given blue in nature can suggest mouldy food (Newsome et al., 2014).

Despite its unnatural colour and connotations, blue wine has been invented, as an approach to creating a new drink. After Gik produced *Blue Wine*, there came an inflation of variations on the market, including *Blue Bird* (Allen, 2016), *Blue Swan* ("Royal Cross", n.d.), *Eden* (inspired by International Klein Blue), *Skyfall* and more recently *René Le Bail Vindigo* (Shaw, 2018). This list is growing, with *Blumond, Blanc de Bleu Cuvee Mousseux* and *Marques de Alcantara Blue Chardonnay* (Peters, 2018), among others mixed with blue curaçao (Shaw, 2018). Some of the wines have added colourings (Allen, 2016; Carroll, 2017), and others make claims on being natural, including René Le Bail's *Vindigo (Johnstone, 2018),* despite being unconfirmed (Chazan, 2018). Blue curaçao itself has added synthetic organic and natural food dyes ("Senior Liquer", n.d.-a, n.d.-b). While literature claims Gik was the first to produce blue wine, it was previously made in the seventies by Penfolds ("Somerled Wines", 2018). *Chalet Blue Rhapsody* "didn't last" (Allen, 2016, para. 5) due to "its similarity (in colour) to kerosene" (Port, 2012, para. 2).

Although blue wine was unsuccessful in the past, its popularity has increased as confirmed by amplified productions and consumer purchases (Peters, 2018; Shaw, 2018). Spence (2018) attributes this to natural flavourings. Blue however, is "extremely difficult to replicate in foods and beverages" (Newsome et al., 2014, p. 6498). If Homer's *Odyssey* was positioned in the

contemporary age, the claim of a "wine" coloured sea would be plausible.

Light. *The Mausoleum of Galla Placidia* is an example of light influencing colour. According to Johannes Itten (1961-1970) the orange windows cause orange light to pass through. When cast on the blue walls of the mausoleum, the light painting displays the complementary colours blue and orange with grey—an "impression of suffusion with color [*sic*]" (p. 9). Itten's art theories, such as complementary colours, are still used in theory today. Another example of complementary blue light, is experienced in *after-image*—colour impressions seen in the minds-eye or "simultaneous contrast . . . caused by retinal adaptation" (Varley, 1980, p. 40; Abumrad & Krulwich, 2012). After-image would be an interesting technique to use in artwork, wherein, viewers could stare at an orange image for a considerable amount of time, and when the viewer looks away onto a light surface, an impression of blue (the complementary colour) appears in the minds-eye. In fact, bees may already see yellow flowers as blue-green (in terms of human descriptions), due to their perception of ultraviolet light (Varley, 1980). Colour perception is not the focus of this doctorate. However, it is acknowledged that perception can vary among humans as it does between species, and perception is a prerequisite of seeing colour (Abumrad & Krulwich, 2012; Hoffman, 2013; Macdonald, 2016). An art study was trialled in this doctorate on the concept of after-image. Different lighting effects were also utilised.

Lights projecting different colours can affect the appearance of other colours due to how they absorb and reflect wavelengths, and project different "colour mixtures to the eye" (Varley, 1980, p. 21). For example, a green capsicum under yellow light casts a vivid blue colour (Varley, 1980). As explained by Finlay (2002), this is called chemical colouring, wherein the light affects the object and "causes it to rearrange its electrons" (p. 5). Using saturated coloured light, in place of white light to display or create an artwork, was considered in the artefact process of this doctorate. Similarly, is it possible to have too much blue? It is interesting to note that the quantity, brightness, and intensity of a colour, may influence a viewer psychologically (Andrew Elliot, as cited in Belluck, 2009). Fowler (2014) described an experience with Derek Jarman's (1993) film *Blue* wherein it felt "redundant" despite how beautiful the colour was (this is discussed further on page 100):

> the room had become fully blue. Everything from the chairs to the walls, ceiling, whiteboard, projector, my peers, and myself were covered in blue. Blue extended past

the screen into the space of its projection, and transformed everything it touched into itself. (p. 2)

Light, therefore, influences how colour is seen, and raises questions regarding the level of colour immersion and relativity that an artist chooses to engage with for each artwork. This concept is discussed further in relationship to the use of International Klein Blue (IKB) on page 100.

Psychology. Blue has numerous symbolic and situational meanings depending on cultural context, history, and learned associations (Elliot, Maier, Moller, Friedman, & Meinhardt, 2007). This section of the exegesis provides a brief cohesive recount of the symbolic nature of blue. It is outside this doctorate's research scope to address all of psychology, so the focus is on its symbolism. Both renown colour researchers Johann Wolfgang von Goethe and Carl Jung are mentioned in this text, however their research will not be delved any further.

Blue "gives us 'the blues'" referring to sadness (Varley, 1980, p. 59)*;* or signals "openness" (Mehta & Zhu, 2009). It can be a "calm, pacified, distant" colour (p. 180)*,* or associated with both "coolness and calm" (Shedroff & Noessel, 2012, p. 43). Blue "recedes into the distance" (Finlay, 2002, p. 317) and "retires from us" (Goethe, 1840/2014, Part VI section, para. 780); can make a room feel colder (Varley, 1980), or both "cold and sad" (Pastoureau, 2000/2001, p. 202). According to Goethe (1840/2014) blue spaces feel larger and also empty and cold , although Goethe's theory considered blue to be a "warm" colour (Pastoureau, 2000/2001, p. 137).

In German, to be "blau sein" (be blue) is "to be drunk"; and equally the English "blue hour" means drinking and forgetting ones troubles, relating blue to alcohol (Pastoureau, 2000/2001, p. 140). "The Blues" of "African American origin" is a music "that expresses melancholy mood" (Pastoureau, 2000/2001, p. 140), emphasising blue's relationship with sorrow. Geothe (1840/2014) suggests objects viewed through blue glass is "gloomy and melancholy" (Part VI section, para. 784). It is the only colour with a music genre assigned to its name (Fowler, 2014). Artist Picasso is renowned for his "Blue Period" showcasing sorrowful scenes (see later: *Art Inspiration – Initial Influences, Picasso,* p. 98). "Once in a blue moon" by consensus, refers to very rare occurrences (Hiscock, 2012, Blue Moon section, para. 4); with the idiom "out of the blue" for unexpected occurrences ("Out of the Blue", n.d.), among others.

Pastoureau (2000/2001) stipulates that blue has very little moral implications—a "color [*sic*] of consensus" (p. 141). Blue is "almost neutral", "invites revery [*sic*]", "is not aggressive and violates nothing; it reassures and draws together", and can also be "anesthetizing" (p. 180). It is a colour for unity and peace (Mehta & Zhu, 2009), and common in logos promoting those stances including understanding, trustfulness, dependability, and strength (www.thelogocompany.net, as cited in Eberhart, 2014; Pastoureau, 2000/2001). Blue can also represent opposing circumstances, "depressing as well as transcendent", a "holy hue and the colour of pornography [and] indecent or smutty conversation" (Finlay, 2002, p. 317). Blue paint was applied to women who joined in "orgiastic rituals" (Pastoureau, 2000/2001, p. 27). Other contradictions include calm blue waters versus icy dangers (Belluck, 2009). Geothe (1840/2014) considered blue akin to shade and black, whereas Jung saw it in relationship to white and cold (Laughlin, 2015). Even the *Word* document I write my exegesis in, uses the colour blue to underline possible errors in the writing—therein, warning there is a problem, an association normally linked to the colour red. Likewise, blue is often a warning sign in nature, like the flickering tongue of a blue-tongue lizard (Burgess, 2018), the flashing colour of the blue-ringed octopus (Mäthger, Bell, Kuzirian, Allen, & Hanlon, 2012), or the colour of mouldy food (Newsome et al., 2014).

Pastoureau (2000/2001) reveals pre-twelfth century Europe saw an improvement of brighter and clear blues, which "began to represent light and illumination" (p. 41), and eventually associated blue as a religious holy colour. Initially, red "madder" dye merchants tried to "discredit the newly fashionable color [*sic*] that was threatening their profits" (p. 39) with blue devil depictions and other diabolical associated work. The sabotage ultimately did not work, and blue became a "moral" colour: "Neither imposed, nor forbidden, blue could be used freely, neutrally, without threatening anyone" (p. 93). In Hindu India however, it was already a lucky colour—the God Krishna is blue and "dances through the world, making both love and fun" (Finlay, 2002, p. 378). Dayflower blue, an "unstable blue colour" prone to fading and disappearing in water, was used as a "metaphor for ephemeral love" (Sasaki & Webber, 2002, p. 185).

Blue in competition with red meant their relationship formed a "partnership of contrast": among with "masculine versus the feminine" there was also the "festive versus the moral, the material versus the spiritual, the near versus the far" (Pastoureau, 2000/2001, p. 123). Certain associations for blue changed with time. Pastoureau (2000/2001) details, for example, that ancient Romans considered blue-eyed woman to have loose morals and blue-eyed men were

"effeminate, barbarian, or laughable" (p. 27). Blue was once a feminine colour, whereas today is generally connected to masculinity labels, and red (pink) to femininity (Pastoureau, 2000/2001; Frassanito & Pettorini, 2008). An artefact on this concept of red versus blue was created for this doctorate.

In contrast, blue has been associated with death. This theme was applied to a research artefact for this doctorate. According to Gettens and Stout, the Aztecs "daubed their sacrificial victims with [blue] before they pulled out their hearts" (as cited in Finlay, 2002, p. 368). Blue is "the colour of the naked bodies taken out of the plague houses" (Finlay, 2002, p. 376), and death and the underworld in Ancient Rome (Pastoureau, 2000/2001). Blue can also be positively associated with death—ancient Egypt and Middle East believed "blue had beneficent powers and was used in funerary rites to protect the dead in the afterlife" (Pastoureau, 2000/2001, p. 22 [emphasis removed]), "to dispel evil and bring prosperity" (p. 23). In artworks, blue in association with death, was a theme for artists Picasso and Klimt (see page 96).

Many of these symbolic colour associations are learned experiences from individual contexts, cultures, and history (John A. Bargh, as cited in Belluck, 2009; Xia, Song, Wang, Tan, & Mo, 2016). It was certainly the case for the artefacts created for this doctorate. Constant repetition of certain colour associations, for example that skies are blue, brings association "without the individual's conscious awareness or intention" (Elliot et al., 2007, pp. 155-156). The shade, intensity or brightness of blue, can also influence its use and portrayal (Pastoureau, 2000/2001; Andrew Elliot as cited in Belluck, 2009). Muddy dark blues were associated with unholiness, and being poor, whereas brighter blues were for religious icons and nobility in European history (Pastoureau, 2000/2001). An artefact created for this doctorate, involving iconography, undeniably utilised vivid shades of blue. These shades were not lighter—they were intense and luminous.

As already confirmed in this review, colour symbolism varies among different cultures and can vary in individuals, making the study of colour effects to be likely "unreliable or inconsequential" (Dr. Norbert Schwarz, as quoted in Belluck, 2009, para. 14). In correspondence, a 2016 journal article suggests blue is well-investigated in terms to its psychological effects (Xia et al.), but not for personal individual psychology (Fowler, 2014). Interestingly, some research involving personal colour effects, suggest that blue is a colour with a "promotion" focus—encouraging and open-minded, allowing people to focus on tasks without fear of mistakes, and thus increasing creativity ("Seeing Red, 2009; Mehta & Zhu,

2009). Since this exegesis and doctorate references personal individual psychology through using blue as a theme, it contributes to this gap of literature. Although this exegesis does not investigate general colour psychology any further, the literature here remains as reference for possible future research in the field of Psychology or colour theory. The literature has also influenced the creation of artefacts through the writer/artist's present symbolic association of the colour blue.

Blue Colourant History

Why look at blue colourant history? Like Victoria Finlay (2002), she found it was important to understand the background of pigments being used. Shinkyuu Art's creation process requires materials, and with an abundance of blue pigments, it was important to understand some of blue's colour development history. Knowing a pigment's history influenced what pigment was used for each artefact. Blue was last to be named in most ancient cultures (Geiger, 1868/1880; Berlin & Kay, 1969/1991; Walton, 2014). The only exception is the ancient Egyptians, who had access to natural blue stones (Finlay, 2002). Although not pigments, they created "their own blue paints [using] glass . . . ground up finely into powder" (Finlay, 2002, p. 327). Pastoureau (2000/2001) alternatively suggests they did produce "artificial blue pigments . . . from copper silicates" (p. 18). However, the specific meaning for *pigment* used by himself and Finlay is left to be founded. This doctorate follows the definition provided in the *Glossary* (see page 13).

Articles calling Egyptian Blue a pigment, describe its process as grinding copper silicates (Royal Society of Chemistry, n.d., p. 4) or glass (McCouat, 2013), confirming Finlay's statement. Complementary to this, Newsome, Culver and van Breemen (2014) specify a "[b]lue pigment [is] an organic compound that absorbs photons in the red light region and appears blue" (Newsome et al., 2014, p. 6499 [emphasis removed]). Glass is inorganic (Gale, 2005), hence it is not a pigment according to Newsome et al. It can, on the same hand, be an inorganic pigment—a pigment all the same (Ganio et al., 2015). Ganio et al. (2015) does not disregard that Egyptian Blue "is so far the first synthetic pigment ever produced" (p. 6). Even the most recently commercially available blue, YInMn, is an inorganic pigment (Schama, 2018).

YInMn holds significance to blue colour history as a new pigment currently lacking in literature, unlike Egyptian Blue. YInMn is considered "the bluest blue to date" due to its absorption of red and green light waves (Schama, 2018, para. 2). For this reason, YInMn is

included in the artefacts of this doctorate. Conversely, Egyptian Blue is not spoken about in detail within this doctorate, or utilised due to inaccessibility. However, Egyptian Blue is acknowledged as the first artificial pigment created (Fessenden, 2015; Coles, 2018). The Egyptians referred to the colourant as "*hsbd-iryt*, which means artificial lapis lazuli, indicative of the ancients' obsession with this precious stone" (Royal Society of Chemistry, n.d., p. 4). Varley (1980) details that the Egyptians had access to blue stones such as "lapis lazuli and turquoise" or "imitations made of a vitreous paste called Egyptian faience" (p. 64). Egyptian faience stones were blue or blue-green in colour and usually "funeral pieces . . . whose color [*sic*] was believed to have a magical or protective power" (Pastoureau, 2000/2001, p. 18). Egyptian Blue, having a turquoise tone, was both paint and a glaze, and was later reproduced centuries later by Islamic artisans, in a similar hue (Varley, 1980, p. 62).

There is an extensive list and history for natural and synthetic pigments. The discourse of all individual blue pigments and their specific use on artworks throughout art history, is not expressly addressed in this exegesis due to its wide scope. However, it does acknowledge specific pigments that are renowned in art history, those that are prominent to the Shinkyuu Art artefacts created for this doctorate, and a few others that emerged from research.

Lapis Lazuli / Natural Ultramarine. Lapis lazuli, a semi-precious stone, was once the most expensive natural blue pigment (Pastoureau, 2000/2001; Finlay, 2002). The stone itself is deep blue, with "speckles of iron pyrite—fool's gold" leading Finlay (2002) to marvel: "No wonder some people think it is holy: it is a rock picture of the universe" (p. 319). Extracting pigment from lapis lazuli is described as a long, complicated, and tedious process of purifying (Cennini, 1437/1899; Pastoureau, 2000/2001; Finlay, 2002). Once all impurities are removed, the yield of pigment is low (Coles, 2018). Called Natural Ultramarine, it was once comparable in cost to gold in Renaissance Italy (Finlay, 2002), and considered "a gift worthy of kings" (Cennini, 1437/1899, p. 258). Cennini (1437/1899) also advised it was more expensive in his time, retailing at "twice its weight in gold" however worth the expense since natural ultramarine "is the purest blue there is" (p. 259).

One of the earliest uses of Natural Ultramarine is attributed to the Bamiyan Buddha sculptures (Blansdorf, Pfeffer, & Melzl, 2009). Other blue pigments on the sculptures included Chinese azurite, Egyptian Blue, indigo and an unidentified blue (Blansdorf et al., 2009, p. 261). Natural Ultramarine was often used in artworks symbolising richness and holiness, such as religious icons, including representations of Madonna (Finlay, 2002; Barnett et al., 2006;

Coles, 2018; Harris & Zucker, ca. 2014), and Christ (Varley, 1980). Natural Ultramarine's expense and difficulty in making, made it valuable for religious works (Harris & Zucker, ca. 2014). Byzantium religious iconography paintings required natural pigments, materials, and depictions of nature, to be celebrated as "natural gifts of God" (Finlay, 2002, p. 24). However, the Virgin Mary was not always originally blue. Much like gender symbols, the Madonna changed throughout history, and its association was generally dependant on whatever the most expensive or valued colour was at the time (Finlay, 2002), or if it was "holy" (Pastoureau, 2000/2001). By the sixteenth century, liturgical colour coding was standardised, and the Virgin Mary was dressed in the blue of "the heavens" (Finlay, 2002, pp. 324-325). It is speculated that a veil worn by the Virgin Mary was light blue, despite the material now faded to off-white (p. 351). The use of Lapis Lazuli with iconography is repeated in one of this doctorate's artefacts.

Natural Ultramarine "produces a wide range of blue tones of striking intensity" and "reflects light well" (Pastoureau, 2000/2001, p. 22). It is dense and applies opaque, without multiple layers needed, however "does not spread easily" (p. 22). It is known that artists would, when needed, mix ultramarine with black or underlay "with cheaper azurite" (Varley, 1980, p. 70; Finlay, 2002), and silver (Cennini, 1437/1899). As specified by Finlay (2002), the difference between pigments is "in how artists used the two paints: ultramarine to give height to the skies, and azurite to give depth to the seas" (p. 318). Specific to artist Vermeer, Pastoureau (2000/2001) describes how Lapis Lazuli's high cost meant "it was used only for surface work; the sketch underneath was done with azurite, smalt (especially for skies), or less often with indigo" (Pastoureau, 2000/2001, p. 117). Azurite could not replace Natural Ultramarine entirely, despite being less expensive, it was also unstable, too gritty or difficult in a binder, inconsistent with tones, and prone to fading or changing colour (Pastoureau, 2000/2001; Finlay, 2002; Coles, 2018). Cobalt (smalt) as another alternative, "[replaces] it for most purposes and is as permanent", however it is similar to Egyptian Blue in composition—glass based and gritty (Coles, 2018), "more purplish" (Cennini, 1437/1899, p. 259), and also changes colour, "to a thin greeny-brown gray [*sic*]" (Schama, 2018, para. 3). Eventually, synthetic ultramarine was created, in 1828, by Guimet, and named "French Ultramarine" (Finlay, 2002). French Ultramarine, although extensively cheaper and close to the original, was unable to replace real ultramarine in Cennini's (1437/1899) opinion: it is "the sky blue which best retains its colour under artificial illumination. As is always the case with natural pigments, it is more permanent than artificial ultramarine, and is also more beautiful" (p. 259). This doctorate has found that there are examples where synthetic pigments are not always the preferred. Such a pigment is Asiatic Dayflower.

Asiatic Dayflower.

Figure 15

Dayflower Paper Back Lit in Natural Light
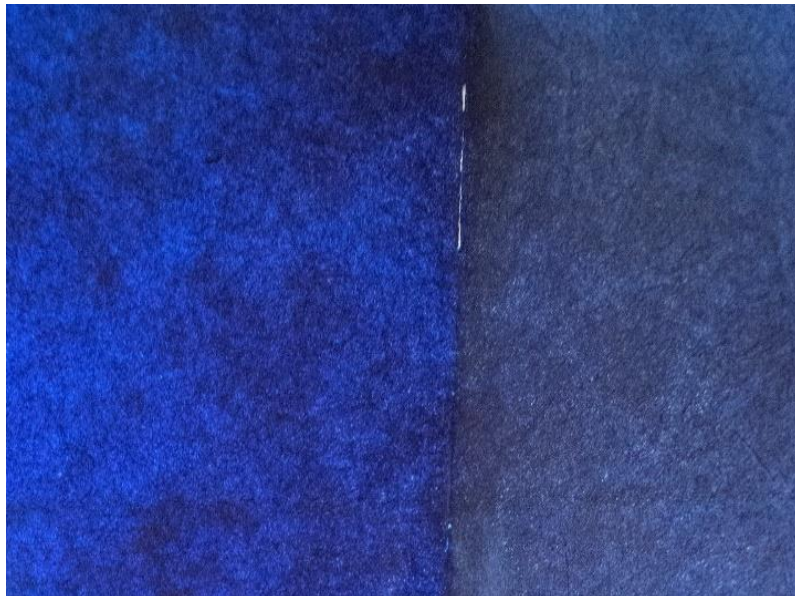
The most commonly used natural blues in eighteenth to nineteenth century Japan, according to Turk in *The Prints of Japan* and Yoshida and Yuki in *Japanese Print Making*, was Asiatic Dayflower blue and Japanese Indigo (as cited in Whitmore & Cass, 1988). They were used as clothing dyes and colourants on Japanese woodblock prints or "Ukiyo-e" (Whitmore & Cass, 1988; Gleason, 1996; Shimoyama, Matsui, & Shimoyama, 2006; Sankei News, 2016). Ukiyo-e was produced largely between the seventeenth to nineteenth centuries (Sasaki & Webber, 2002). Japanese Indigo is still in use today as a natural dye, and a part of traditional Japanese culture, however dayflower use is scarcer. Both also feature in this doctorate's artefacts.

Asiatic Dayflower (*Commelina communis*) is grown and found natively in Japan, China and Korea (Sasaki & Webber, 2002). This doctorate focuses on its use as a colourant, which was prominent in Japanese textiles and art (Sasaki & Webber, 2002). Dayflower pigment was likely used as dye from "earlier than eighth-century" (p. 185). Dayflower dying is considered a surviving tradition in Japan (Sankei News, 2016), with an annual festival held called "草津あおばなフェスタ [Kusatsu Aobana Festival]" hosting events using "青花の紙 [blue flower paper]" (Kusatsu City Hall Public Relations Division, 2018).

Dayflower and Dayflower Paper (see Figure 15) are called numerous names throughout literature, although "tsuyukusa" is most common for the flower (Pennell, 1938; Whitmore &

Cass, 1988; Milhaupt, 2002; Sasaki & Webber, 2002; Shimoyama et al., 2006; Derrick et al., 2017). The multiple names are a part of the Japanese lexicon, providing individual terms for different applications of dayflower (Pastoureau, 2000/2001). These names are acknowledged by Sasaki and Webber (2002), who also specify between wild and hybridised species, although "'Dayflower' is the only way to describe the flower in English" (p. 185). Like them, this doctorate chooses to use the term tsuyukusa, dayflower, or Asiatic Dayflower for the flower, and "aobanigami" or Dayflower Paper for the paper.

Dayflower pigment is a vivid blue colour (Sankei News, 2016), described as "azure" made from "extracted flower juice" (Kuroda, 1931, p. 61). More precisely, the pigment is sourced from the juices squeezed from its petals (Pennell, 1938; Sankei News, 2016; Derrick et al., 2017). Dayflowers only have two petals that are blue (Pennell, 1938; Sasaki & Webber, 2002; Derrick et al., 2017; Taft, 2017), which contain "anthocyanin" (Derrick et al., 2017), and as previously known is edible (see *Food and Drink.,* p. 73). The petals are sieved to remove impurities such as pollen, and then squeezed to release the pigment until the petals are pale (Sasaki & Webber, 2002).

Dayflower pigment, called "commelinin" (Sasaki & Webber, 2002), is not made ready-to-use in paint tubes or bars. Although it can be used straight from the petals (Feller, Curran, & Baile, 1984), the colourant is commonly stored on paper as a carrier, "painstakingly prepared by painting the flower juice on sheets of paper and drying them in the sun" (Kuroda, 1931, p. 61). The paper carrier is "a very thin kozo paper called tengujo" (Sasaki & Webber, 2002, p. 187), that is thoroughly "soaked in blue dayflower pigment" (Emura et al., 2016, p. 5) and dried to create "aobana-gami (blue flower paper or dayflower paper)" (Sasaki & Webber, 2002, p. 185). A hybridised dayflower species is most commonly used for production of Dayflower Paper, as the petals are approximately five times larger than that of the wild species (Sasaki & Webber, 2002). Due to commelinin's sensitivity to water, only water is required to remoisten the pigment for use (Sasaki & Webber, 2002). It should be stored in plastic, in the refrigerator away from hot temperatures, moisture and sunlight (Y. Matsui, personal communication [Email], September 12, 2018). The paper can also be stored in a freezer to "maintain the blue colour for a period of years", or water-immersed pigment left in a fridge for "the next day" (Katsuhara, as cited in Sasaki & Webber, 2002, p. 187). Sasaki and Webber (2002) provide additional information for storage, specifying

liquid freshly obtained from the petals can be stored for up to three days in a cold environment; farmers keep the blue liquid in a domestic refrigerator [and] aobana-gami (the colourant in a dried state) can retain the blue colourant for a period longer than one year (pp. 186-187)

Ukiyo-e prints using dayflower pigment outlines, are called mizu-e, as in "blue prints" (Keyes, 1984), a name shared in English (see *Prussian Blue,* p. 91). Outlined by Keyes (1984), "mizu means 'water', but also indicates the fugitive blue color [*sic*] derived from the dayflower" (p. 66). Dayflower is no longer commonly used in Ukiyo-e art due to its sensitivity to light and water. Exposed to light, the blue colour fades (Whitmore & Cass, 1988; Derrick et al., 2017; Cesaratto, Luo, Smith II, & Leona, 2018), reportedly into yellow green (Taft, 2017), or "a light tan" (Keyes, 1984, p. 32). A doctoral study recording its fade under synthetic light has reported it to be substantial over a short span of time (Feller et al., 1984). This fading was also noticeable on stored aobanigami, with variation depending on the manufacturing year (Sasaki & Webber, 2002). Newer samples provided a more "brilliant blue" and older samples "a darker blue" and "greyish blue" (p. 187).

Indeed, it is "one of the most moisture-sensitive colourants used in Ukiyo-e" (Sasaki & Webber, 2002, p. 188), and it can be "easily washed away" (Kuroda, 1931, p. 61). It is so water sensitive, tests have confirmed dayflower blue to be "removed almost completely, leaving no trace behind" on paper (Sasaki & Webber, 2002, p. 186), or on kimonos (Milhaupt, 2002). Known as "yuzen-zome" (Sasaki & Webber, 2002), or "yuzen dyeing" (Emura et al., 2016), dayflower pigment could be drawn onto textiles as a guideline, and easily removed by spraying water "without disturbing other dyes" (Sasaki & Webber, 2002, p. 186). In this instance, the purpose of dayflower pigment is quite akin to tailors' chalk, without requiring full laundering. Demonstrated by Sasaki and Webber (2002), a dilute solution of "initially a pale, fresh blue" turned colourless "within a few hours" (p. 186). Interestingly, they describe old aobanigami is preferred by dyers, because it is more stable and less washable than new aobanigami. Aobanigami was also produced prior to the beginnings of Ukiyo-e and yuzen-dying, where it was used with "shibori-zome"—textiles bound with thread (p. 186).

Derrick et al. (2017) advocates that dayflower pigment was often mixed with other colours due to "its poor lightfastness and its sensitivity to water" (p. 26). However, it was preferred for creating purple, when mixed with safflower red (Derrick et al., 2017; Cesaratto et al., 2018). This preference was at least prior to the introduction of synthetic rosaniline magenta in 1864,

which could then be mixed with Prussian Blue (see page 91), previously introduced in 1828 (Cesaratto et al., 2018). Dayflower pigment was removed from common use in Ukiyo-e during the Meiji period (approximately 1868-1912) (Cesaratto et al., 2018).

Today, there are only "a small number of farmers engaged in [dayflower] production" (Sasaki & Webber, 2002, p. 185). The hybridised dayflower (*Commelina communis* L. var. *hortensis*) is only cultivated in Kusatsu, Shiga prefecture, previously Omi district (Sasaki & Webber, 2002). It can still be purchased from some Japanese dye shops, such as Tanaka Nao Dye Shop in Kyoto (https://www.tanaka-nao.co.jp/) (Y. Okada, personal communication [Email], August 30, 2018; Y. Matsui, personal communication [Email], August 31, 2018). The process for Dayflower paper remains "unchanged since the Edo period" (Sasaki & Webber, 2002, p. 186).

Dayflower pigment for art, has been replaced with other synthetic low-cost options (Sasaki & Webber, 2002; Emura et al., 2016; Taft, 2017), or replicated in tribute by companies such as Pilot Japan ("Iroshizuku Ink Bottle 50ml", n.d.) using synthetic ink (K. Tran, personal communication [Email], November 5, 2018). Unvaryingly, natural dayflower is still preferred over the synthetic for textile arts (Sasaki & Webber, 2002). Complications with synthetic versions include the necessity of "steaming or boiling" to remove pigment or fading earlier than required (p. 189).

Dayflower pigment/commelinin is prominent in this doctorate due to its ephemeral quality, providing a place for digital technologies to archive its appearance and colour before fading. The process can also be documented using digital technology (Sankei News, 2016). Both fading in the sun, and in water, were queried in this doctorate's art studies. Although other natural blue pigments fade over time, Dayflower's quick departure in water made it of higher interest. Commelinin does withstand heat and remains stable when dry for years (Sasaki & Webber, 2002). Provided the pigment avoids water, it can be successfully and productively used for areas outside of textiles, like Ukiyo-e, or in fact, the artefacts of this doctorate. Some of the artefacts in this doctorate use dayflower pigment separated from Ukiyo-e processes.

Indigo – woad, Indian Indigo, Japanese Indigo. There are different varieties of indigo plants, including a Mayan species used to create Maya Blue—a "vivid turquoise" involving indigo mixed and heated with clay (Cooksey, 2012; Stopka, 2018); and *coerulia* a similar species of Indian indigo, which according to Dr Sanjappa relating to William Roxburgh's work, "had more blue" (Finlay, 2002, p. 368). The variety *tinctoria* however, is the

main commercial natural indigo, and is discussed. The other two varieties this exegesis mentions are woad (its past competitor) and Japanese indigo (used in Ukiyo-e). Although the indigos are commonly used as dye, it was also ink for Ukiyo-e woodblock prints. Natural indigos are no longer produced on a commercial scale, since synthetic indigo—a less tedious and inexpensive pigment—was introduced (Shim, Chang, & Kim, 1998). Plant indigo is still valued for its traditions, colour, and natural processes.

 Woad. Woad (*Isatis tinctorial* L.) (Honda, Tosirisuk, & Tabata, 1980; Bechtold, Turcanu, Geissler, & Ganglberger, 2002; Cooksey, 2012; Wenner, 2017) is a mustard family herb, "that grows in moist, clay-rich soil" in temperate regions of Europe (Pastoureau, 2000/2001, p. 16). As discussed further by Pastoureau (2000/2001) and Finlay (2002), woad and indigo have a competitive history towards being main developers of indigo dye. This doctorate thus cannot discuss indigo without also mentioning woad. Woad is cited once in Cennini's (1437/1899) work, but as a less-preferred imitator for indigo. The Celts and Germans had also apparently used woad as a blue dye (Pastoureau, 2000/2001). In Europe where it is local, woad was once referred to as "blue gold" and in competition to madder dye merchants producing red dye (Pastoureau, 2000/2001, p. 64). "Blue gold" was also used for Indian indigo (Rao, 2011).

Woad's colourant is from its leaves, and its process is "long and complex" (Pastoureau, 2000/2001, p. 63). Picked, ground, and then cured leaves are made into a paste called pastel, and then moulded into blocks and dried. These blocks are usable only by skilled pastel merchants knowledgeable on its "long, delicate, and dirty process" (p. 63). The process involves crushing the pastels, fermenting with water "for three days", redrying in the sun to turn blue, and then placing in a dye vat with "potash or urine" for a day (Travel France Online, 2017, para. 3). According to Pastoureau (2000/2001) this linked alcohol with the colour blue as "dye recipes recommend using an extremely drunk man's urine as a mordant to help woad penetrate deeply into the fabric" (p. 140). Although woad is native to Europe, the introduction of indigo vastly reduced woad production, and indigo became the largest producer of natural indigo by late seventeenth century in Europe (Finlay, 2002). Woad was kept in production at the time, however, as an emergency colourant for indigo (Pastoureau, 2000/2001).

Indian Indigo. *Indigofera tinctoria L.*, or Indian indigo (Bechtold et al., 2002; Coles, 2018), comes from Latin meaning "India/Indian", and essentially named for where Indigo originated (Chopra & Chopra, 1955). It was commonly exported from India (Pastoureau, 2000/2001). Although Cennini also mentions "indaco baccadeo (indigo from Bagdad)" (p. 47), it was likely Indian indigo travelling through Baghdad (Rembert, 1979). Indian Indigo was for a time, forbidden in Europe to protect the use of woad (Pastoureau, 2000/2001). Indigo, however, was generally cheaper than woad and easier to use, and eventually replaced woad as the primary producer of blue dye (Pastoureau, 2000/2001; Finlay, 2002). The process for Indian indigo involves an oxygen-free vat (Finlay, 2002), with items appearing green when initially dyed, and turning blue when exposed to air (Pastoureau, 2000/2001). Unlike woad, a mordant is not needed (Pastoureau, 2000/2001). Indigo produced a dye "ten times darker than that of woad" (p. 126), with a better fastness to certain fabrics (Pastoureau, 2000/2001; Finlay, 2002). Fabric could also be carefully redyed to obtain the right shade (Pastoureau, 2000/2001). The result ranged from "a great variety of dark and solid blue tones that were very resistant to soap and sunlight" (p. 130).

A New World variety of indigo was found in America (*indigofera suffruticosa*) (Rembert, 1979), that according to Pastoureau (2000/2001) "produced a colorant superior to those made from the Asian varieties" (p. 127). This New World variety was already used by Indians in Central America (Rembert, 1979). Its stock greatly replaced European woad as the primary dye product; although needing to be transported, it was significantly cheaper than Indian indigo due to slave labour (Pastoureau, 2000/2001). Finlay (2002) alternatively states *indigofera tinctorial* was the main commercial indigo plant. James Bitler, on behalf of *New Georgia Encyclopedia* (2008) however, proposes it was both, and that "the Asian variety was considered by some to be finer" (para. 3). Differences between Indian indigo and American indigo include, that the latter grows "taller and more vigorous" (Pastoureau, 2000/2001, p. 130 [emphasis removed]); and its colour is found "concentrated in the youngest leaves near the branch tips" similar to woad (p. 130 [emphasis removed]).

Eventually, plant indigo was replaced by synthetics (Finlay, 2002; Coles, 2018). It drastically reduced the production of natural indigo (Bechtold et al., 2002). Synthetic indigo was discovered in 1878 by Baeyer—perfected by Heuman twelve years later—to be used "on an industrial scale, causing the irreversible decline of indigo plantations in India and the Antilles" (Pastoureau, 2000/2001, p. 131). Natural indigo did, however, highly popularise jeans in

Western clothing, thus blue remains the colour of denim (Bechtold et al., 2002; Dayman, 2018). The popularity of indigo in denim is described by Pastoureau (2000/2001):

> Denim was too dense to absorb the dye completely, so there was never a guarantee that that the color [*sic*] would last. It was precisely this instability, however, that made it a success: the color seemed to be alive, changing over time (as did the wearer of the jeans or overalls). Several decades later, when progress in chemical colorants allowed any fabric to be dyed deeply and uniformly with indigo, jeans producers were obliged to whiten and discolor [*sic*] their pants artificially in order to recapture the washed-out shades of the original product. (p. 167)

Cennini (1437/1899) suggests "indigo-fera" was previously used in "classic times" as a fresco paint, that is a "very fugitive pigment however employed" (p. 258). This notion is agreed by curator Douma (2008), regarding the Ancient Greeks and Romans who may have used it as a paint, and includes Middle Ages Europe. Pastoureau (2000/2001) advocates it was also applied by the ancient peoples of the Middle East, likely since the Neolithic period. He confirms its use by "Biblical peoples . . . well before the birth of Christ, but it was expensive and applied only to the finest fabrics" (p. 17). Pastoureau (2000/2001) speculates that indigo would have been more commonly used as a paint in Western Europe if the regulations on dyes were not "highly controlled". It may have allowed for "dark and reflective" paint on large surfaces, with varying degrees of tones and dark blue shades (p. 131-132). Regardless, indigo was used as an ink for Ukiyo-e prints in Japan.

Japanese Indigo. East Asia has its own species of indigo named *Persicaria tinctorial* (Dayman, 2018) or "Japanese indigo" (Wenner, 2017), and previously *Polygonum tinctorium* Lour. (Honda et al., 1980; Cooksey, 2012; Wenner, 2017). A similar species, *Polygonum tinctorium* Ait., also known as "knotgrass" (Shimoyama et al., 2006), or "Dyer's knotweed" is also used for dying from the same family (Bechtold et al., 2002; Angelini, Tozzi, & Nassi o Di Nasso, 2004; Roberts, 2006). Although there is confusion as to which species is the main one used, this doctorate considers all sources referencing "Japanese indigo". Like the previously mentioned Asiatic Dayflower, Japanese indigo is another colour traditional to Japan ("Aizome", 2015), that was also used in textiles (Angelini et al., 2004).

Japanese indigo is well renowned in Japan (Honda et al., 1980; Angelini et al., 2004). Like Indian indigo, synthetic indigo also greatly reduced the production of Japanese indigo (Angelini et al., 2004). More recent sources suggest Indian indigo is now the main provider of

natural indigo in Japan, since its introduction ("Aizome", 2015; Dayman, 2018). Regardless of the variety of indigo, this exegesis focuses on its use within Japan as a tradition and art. Japanese indigo is interrelated with Samurai culture (Dayman, 2018; Great Big Story, 2018). It is "highly prized in Japan" (Great Big Story, 2018, 00:12), and "the artisanal culture of indigo dyeing is deeply entrenched in Japanese craft, design and fashion" (Dayman, 2018, 1. The History section, para. 1).

How Japan cultivates the indigo, is also local to the country and their tradition. Harvested ink-ready leaves are sun-dried, and then fermented ("Aizome", 2015; Dayman, 2018). One farmer details the leaves are also flipped constantly with a broom when drying, making it time-consuming and labour intensive (Great Big Story, 2018). The leaves are then fermented through moistening to develop "sukumo" for dying (Honda et al., 1980; Dayman, 2018). Sukumo contains a concentration of the indigo dye, which once developed, is mixed with substances such as lye and lime ("Aizome", 2015; Dayman, 2018), "fermented again and made into a dye that's ready to use" (Dayman, 2018, 2. How to Make section, para. 3). Sukumo can also be dried for use (Honda et al., 1980; Roberts, 2006). This method is the traditional method for producing indigo in Japan, using a fermentation process of moisture control, and reducing the dye pigment "indirubin" in alkaline conditions (Roberts, 2006; Yumoto, Hirota, Nodasaka, Tokiwa, & Nakajima, 2008). Like Indian indigo, Japanese indigo fabrics are also initially green before turning blue upon exposure to air. The colour produced from Japanese indigo is a "deep, bright blue color [*sic*]" that, similar to Indian indigo, can also dye various shades of blue depending on how it was produced ("Aizome", 2015, para. 1; Great Big Story, 2018), and how many times it is redyed (Roberts, 2006). Japanese language provides different colour names for the colour variations, from indigo white (aijiro) to navy blue (noukon) ("Aizome", 2015, para. 3).

Like Asiatic Dayflower, there is also a preference for the natural dye over the synthetic version, for its colour, lack of chemicals and other benefits (Shim et al., 1998; Great Big Story, 2018). The natural dye is known for having antibacterial properties ("Aizome", 2015; Dayman, 2018; Osamu Ni, interviewed by Great Big Story, 2018); is an insect repellent ("Aizome", 2015); dirt resistant and flame retardant—and as such was the uniform of Japanese firefighters (Dayman, 2018; Great Big Story, 2018). Japanese indigo was also used as medicine (Honda et al., 1980), as an "antidote, anti-inflammatory, antiphlogistic, antipyretic and depurative" (Fern, 2014, Medicinal section, para. 1). It is also edible (Fern, 2014), and as previously mentioned, has been used in artworks, namely Ukiyo-e prints as a colourant (Feller et al., 1984; Whitmore & Cass,

1988; Gleason, 1996; Shimoyama et al., 2006; Derrick et al., 2017). Like Asiatic Dayflower, it was also preferred over Prussian Blue by some artists for creating purples (see next section) (Cesaratto et al., 2018). Unlike dayflower, however, indigo was more stable and water resistant (Feller et al., 1984; Whitmore & Cass, 1988).

Using a binder, natural indigos can be turned into a paint (Stopka, 2018). Ground soybean juice was traditionally used in yuzen dying (Emura et al., 2016), or soymilk (Marshall, 2008). "Ganryo" pigment from Japan—raw pigment in the form of cakes—can also be purchased, crushed and mixed with any binder (Kirk, 2015; Stopka, 2018; Bull, n.d.), or simply mixed with water (GalerieKoo, 2019). The cakes are a traditional Japanese paint, created from a mixture of plant pigment with animal materials (GalerieKoo, 2019), and used for centuries in Ukiyo-e. There are modern companies providing ready-to-use liquid paint versions of indigo, made from natural pigments (Stopka, 2018), such as Wallace Seymour (Wallace Seymour Representative, personal communication [Email], February 14, 2019). Stopka (2018) also suggests it is possible to use "botanical indigo powder" to mix with a binder (Sources section, para. 2). Marshall (2008) advocates for using the oxidized indigo from a vat, either wet or dried.

The current written literature found, shows indigo dying fabric or paper, but not as a paint in paintings, apart from Ukiyo-e. Artist KanZan Loc, does use ganryo pigment for their imagery (GalerieKoo, 2019). Although natural indigos have fallen from favour in the commercial world, they are returning in popularity due to traditions and absence of chemicals in production (Yumoto et al., 2008; "Aizome", 2015; Great Big Story, 2018). There are past and current existing projects and research for the reintroduction of natural indigo (Bechtold et al., 2002; Finlay, 2002; Angelini et al., 2004; Wenner, 2017). This doctorate thus utilises indigo in the artefacts, as a contribution to knowledge offering further understanding on indigo as art pigment. Ganryo was also considered, however never deployed. Japanese indigo dye was purchased for the artefacts, although it is possible the pigment itself is the Indian variant—*Indigofera tinctoria L.*

Prussian Blue. Synthetic Prussian blue is favoured in the modern arts world (Smith II, 2005; Barnett et al., 2006; Abbott, 2013). Described by Finlay (2002), Prussian blue was created by accident by Herr Diesbach in 1704, through accidentally combining animal blood (iron) whilst making a red recipe for "carmine lake". Alternatively, Pastoureau (2000/2001) suggests that it was created between 1704-1707, and that Diesbach's first name is unknown, however does confirm the colour was created accidentally. Pastoureau details that Diesbach's recipe for red already contained iron and was foiled by "adulterated potassium carbonate" from a "rascal pharmacist named Johann Konrad Dippel" making the red turn blue (p. 132). Pastoureau claims Dippel knew what had happened: "impure potassium on iron sulfate [*sic*]" and as Diesbach died shortly after creating it, Dippel himself experimented, improved the formula and introduced the colour as "Berlin Blue" (p. 132), although the exact circumstances "remain unclear to the present" (p. 201). Dippel refused to reveal his formula, and it was unknown until 1724 when "English chemist M. D. Woodward solved the riddle and published the composition" (p. 132). A third variant in this narrative, and the most "conventional story", is by Georg Ernst Stahl, although it was published twenty five years after the blue's discovery (Kraft, 2008, p. 61). According to Stahl, Diesbach was in Dippel's laboratory making "Florentine Lake", the potassium carbonate that Diesbach borrowed had been combined with distilled animal blood or "hexacyanoferrate" and when added to the already existing "iron sulfate [*sic*]" solution, resulted in "Prussian Blue, instead of the expected red product" (as cited in Kraft, 2008, pp. 61-62). Indeed, Pastoureau's (2000/2001) suggestion that the circumstances were "unclear" is not unfounded. Kraft (2008) explains the topic is under-researched, and examines other literature surrounding the origins of Prussian Blue to present an alternative. He finds it probable that Diesbach's full name is "Joh. Jacob Diesbach", with 1706 as the recorded year for the blue's creation in Berlin (p. 64). Kraft suggests Diesbach, (although his first name is not mentioned), was involved with the direct production of Prussian Blue, and it was being sold by Johann Leonhard Frisch. Dippel, was also making Prussian Blue, however of a different quality, and only Diesbach and Frisch knew the formula. John Woodward did publish the formula for the colour in 1724, however Kraft says it was "based on a letter sent to him from Germany that disclosed the heretofore secret procedure" and the sender's name was omitted (p. 64). Kraft also details that experiments using the Prussian Blue formula, have found that any animal part could be used in the production of it, not only blood.

In any case, Berlin Blue eventually became Prussian Blue (Pastoureau, 2000/2001). It was the "first purely synthetic pigment" and changed the history of blue pigments in art (Kraft, 2008, p. 61), transforming "painters' palettes for close to two centuries" (Kraft, 2008, p. 133). At the time, it was "less expensive and more readily available or more easily produced as compared to ultramarine or other blue pigments" (p. 61). Although Prussian Blue is unstable under strong lights and cannot be used with alkalis paints, its colour has "blue and green shades of a subtlety" (Pastoureau, 2000/2001, p. 132), and produces "strong or translucent tones" when mixed with other colours (p. 133). It was "instantly popular, particularly as a house paint" (Finlay, 2002, p. 346), and "used extensively in the decorative arts of the late eighteenth and early nineteenth centuries to produce green wallpapers" (Pastoureau, 2000/2001, p. 133). As a pigment, the synthetic Prussian blue was most favoured in the modern arts (Smith II, 2005; Barnett et al., 2006; Abbott, 2013).

Prussian Blue's low cost and qualities made it a prominent pigment for Impressionists painters and "all artists who painted plein-air landscapes" (Pastoureau, 2000/2001, p. 133). It was influential for Japan's Ukiyo-e art history when it was later introduced (Smith II, 2005). It was officially introduced to Edo (present day Tokyo) Japan in 1828, and well received for being a "deep, permanent blue" which inspired many artists (Keyes, 1984, p. 42). Japan had access to other blues, namely dayflower and indigo (Derrick et al., 2017), but Prussian was "high-quality low-cost Chinese-produced Prussian blue in quantity" (Smith II, as cited in Cesaratto et al., 2018, p. 10). Interestingly, Prussian blue was not used in Ukiyo-e for purple, until synthetic rosaniline magenta was introduced in 1864 "to adjust the hue and saturation of the printed color [*sic*]" or to create a "more bluish color [*sic*]" (Cesaratto et al., 2018, pp. 7-8) (see previous, *Asiatic Dayflower.*, p. 82). Other than paint, Prussian Blue was tried unsuccessfully as a clothing dye. It did contribute to developing "the first ever industrial photocopying process" (Finlay, 2002, p. 346), called the "cyanotype or blueprint process" that was "in use from 1843 until the early 1940s" (Kraft, 2008, p. 65). The "white lines on blue paper" became known as a "blueprint" (Finlay, 2002, p. 347). There are two other instances where a printed draft or plan is referred to as a "blueprint", "blue print" or "cyanotype", in both English and Japanese (see previous page 82). Cyanotypes were created among this doctorate's artefacts.

The popular use of Prussian Blue eventually faded in Europe, because artists "felt it was less brilliant than other blues, and certainly less long lasting" (Finlay, 2002, p. 347). New synthetic blues were produced after Prussian Blue's introduction (Lipscher, n.d.). Finlay (2002) implies the end of its notability to be when "American crayon company Binney & Smith [in] 1958 . . .

changed the name of its Prussian blue *Crayola* pencil to Midnight Blue . . . Because teachers were complaining that schoolchildren couldn't relate to the Prussian history" (p. 347). The wax pastels purchased for artefact *Bluetiful (Study)* (see page 135), did indeed contain a *Midnight Blue*, rather than Prussian Blue. Regardless, Prussian is still used as a pigment, and "has other applications ranging from electrochromics and sensors to poison antidotes" (Kraft, 2008, p. 61).

Present Day Blues

Modern colour-makers produce pigments for practical use (Finlay, 2002). There are many inexpensive synthetic blues available; and blue on digital screens, increases the volume of blue objects seen ("Blue screen technology", 2002; Rosenberg, 2016). As proposed by Lhotka, "much of society is technologically oriented and accustomed to seeing images on their computer monitor and the Internet" (Miller, 1998, p. 41), and as such it is a natural opportunity for blues to be used in conjunction with art. "Blue screens" are used for special effects film editing, and the "blue screen of death" is a common phrase for when Windows computers irrevocably break down (Mehta & Zhu, 2009; Shedroff & Noessel, 2012). A larger colour palette is also offered by using a computer, which can be more diverse than traditional medium pigments (Jones as quoted in Greene, 2003).

Pigments and dyes continue to be distilled from nature, or synthesised using modern chemistry, to find the "ideal" hue (Varley, 1980). The new pigment YInMn, was the first new synthetic blue in two hundred years made available for use (Nayak, 2017; Coles, 2018). The pigment is costly, due to "the presence of the expensive metal Indium" and it would be beneficial to recreate the colour another way (Nayak, 2017, para. 10). Artist and company Stuart Semple recently discovered a new blue, however whether it will be usable as paint is yet to be found (Semple, 2018; Westall, 2018). Researchers have also revisited historical blues, such as the medieval folium (*Chrozophora tinctorial*), to determine its molecular structure for preservation and use (Nabais et al., 2020).

The invention of photography and modern printing allowed for "the transforming of light into pigment" although it is a reconstruction (Varley, 1980, p. 48). Colour representation and reproduction can still be limited by its technology (both analogue and digital) and pigments, prompting a particular curiosity in this doctorate about what both in combination can look like. Both certainly influenced the artefacts, and were used in conjunction, to present a new

contribution to knowledge. The conversion of an analogue blue, sampled onto a digital screen, is aided by digital programs and colour codes. *Pantone* is one such provider of colour codes or HEX numbers. Maker Lawrence Herbert says the replacement of colour names with numbers is due to the "digital world now . . . computers don't need names but numbers" (as quoted in Finlay, 2002, p. 437).

Finding Commelina. *Commelina* is the name for the blue pigment that can be found in Asiatic Dayflower as well as other species. It is significant to note that artist Ellie Irons became her own colour-maker, grinding and straining pigment from petals mixed with gum-arabic, to turn into watercolour cakes (Irons, 2015). Irons (2015) described mixing natural pigments as something "that is simultaneously old and new; post-natural and proto-technical; wild and tame; native and exotic" (4:46-4:01). Irons is also interested in "any medium that can help [them] feel more aware of and connected with [their] physical habitat" (Bolt, 2014, para. 6). These somewhat relate to the definition of Shinkyuu Art, if only in similarity (see page 18). The process of colour-making was considered for the artefacts of this doctorate. Irons' research inspired this doctorate's venture into finding *Commelina* species locally.

There are two species of *Commelina* with blue flowers, noted to be growing in Australia according to iNaturalist, called "Scurvy Weed" *Commelina cyanea* and "Climbing Dayflower" *Commelina diffusa* (www.inaturalist.org). However, the only genus that is Australian native is Scurvy Weed (Fairley & Moore, 2000; Hayes, 2014). Scurvy Weed is recorded by The National Library of Australia as edible, with three blue petals approximately 12 mm in size (Fairley & Moore, 2000, p. 325). It is unknown in current literature if this specific species has a practical use for its pigment. Scurvy Weed was thus employed in this doctorate's artefacts, and the results obtained formed a part of an original contribution to knowledge.

It is possible that sightings of C*ommelina cyanea* have been confused with the non-native C*ommelina diffusa* and vice versa according to numerous grey literatures. For instance, a photograph was originally labelled as "Commelina cyanea, Scurvy Weed" ("Commelina cyanea", n.d.), however is reused in an article with the watermark removed and new label "*Commelina diffusa"* despite the article researching *C. cyanea* (Elvis, Bah, Yongbang, Tata, & Ambe, 2013, p. 35 [emphasis in original]). It is not alone with this confusion, where *C. cyanea* is sometimes called both Scurvy Weed and "Native Wandering Jew" ("Commelina cyanea", 2007); and other sources specify Native Wandering Jew as *C. diffusa* but do not list *C. cyanea* in their catalogue, however do list *C. benghalensis* Hairy Wandering Jew (www.daf.qld.gov.au,

www.saveourwaterwaysnow.com.au). The Queensland government released a fact sheet that suggests *C. diffusa* is also an Australian native "to south-east Queensland" (Department of Agriculture and Fisheries Biosecurity Queensland, 2016, p. 2). Another source proposes it is native (Save Our Waterways Now, n.d.). Other writings say Scurvy Weed is the common name for both *C. diffusa* and yet another genus called *C. ensifolia* (Australian Tropical Rainforest Plants, 2010). An academic source paradoxically advocates that the common name for *C. diffusa* is actually "climbing dayflower or spreading dayflower" (Suthana, Sai, & Hareesh, 2018, p. 2), or "creeping dayflower" (Quattrocchi, 2012, p. 383).

It is quantified by numerous articles that Scurvy Weed received its common name due to early non-indigenous colonists consuming it to help treat scurvy (Fairley & Moore, 2000; "Commelina cyanea", 2007, n.d.). Where this specific knowledge originates is unreferenced. The only reputable historical literature found that mentions Scurvy Weed and colonists, do so as a nickname for tobacco and not the Australian native plant (Rive, 1929; Scheick, 1954; 2008). Regardless of this unclarity, as of writing this exegesis, there did not appear to be any literature on the use of Scurvy Weed *C. cyanea* for dye, paint or related. Other writing does mention *C. diffusa* as a dye, according to online archive *Flora of China* (www.efloras.org): "[t]he petal juice can be used as a dye for painting" (Hong & A. DeFilipps, n.d., p. 36). Although undated, the website is supported by a publication from Turland (2008), as being an official online project for cataloguing flora from China. *The Australian Tropical Rainforest Plants* project (2010) supported by Commonwealth Scientific and Industrial Research Organisation (CSIRO), also advises this is accurate: "dye is also obtained from the juice of the petals for use in painting" however it is again unreferenced (Natural History section, para. 3). An academic paper echoes the aforementioned quote, first without reference, and repeated with a suggested reference from R.N. Chopra and I.C. Chopra (1955) page 27: "Within China . . . A dye is also obtained from the juice of the petals for use in painting" (as cited in Suthana et al., 2018, p. 3). However, the primary reference contains no evidence to support their claim, and the only Commelina specific species mentioned is *C. Asiatic Linn* without any mention of its juice (Chopra & Chopra, 1955). Another source, a dictionary by Quattrocchi (2012), does repeat this same statement: "petal juice can be used as a dye for painting", yet without any relation to China (p. 383). This publication references many works, and is unclear which source is specific to the statement of painting. The dictionary also contains a foreword by Donald Pfister (2012) reminding readers that "[s]ources in some entries are contradictory or missing" (Quattrocchi, 2012, p. ix), which was found by this literature review to indeed be the case. They suggest that no reference at all, is better than an incorrect one. Adjacently, however

also poorly referenced, is a thesis that refers to *Flora of China* as a secondary/tertiary source, again echoing the same suggestion that "blue color [*sic*] is . . . removed from the blossom for paints" (Mou, 2017, p. 5).

Like Asiatic Dayflower, the *Commelina* species is able to produce coloured pigment as it contains the anthocyanin complex commelinin (Stirton & Harborne, 1980; Sasaki & Webber, 2002; Suthana et al., 2018). It can be presumed that *C. diffusa*, *C. cyanea* and other *Commelina* varieties, are able to produce blue pigment. Stirton and Harborne (1980) propose *Commelina* has "two distinctive sources of blue flower colour in the family" and that commelinin is specific to the genus (p. 285). Unlike *C. cyanea*, it is possible for *C. diffusa* to be a violet colour (Roth & Lindorf, 2002). Along with the uncertainties around its name and native habitats, C. *diffusa* was the lesser candidate of the two for this enquiry's studies. Scurvy Weed *C. cyanea*, is however, both native and an accessible plant. Subsequently, this doctorate developed a native, natural, blue pigment as a modern-day colour-maker. Producing blue pigment from Scurvy Weed, and finding its similarities to Asiatic Dayflower, was a new contribution to knowledge. The artefacts created for this doctorate, using Scurvy Weed, are the first documentation of Scurvy Weed as paint. The pigment can be applied directly without binders, which is evocative given that most pigments require binders to be turned into a paint, as "[p]igments are hardly ever used in their raw form" (Coles, 2018, p. 147). The artefacts are discussed further in *Chapter 4: Autoethnography*.

Art Inspiration – Initial Influences

The following artworks of blue hold significance in this exegesis, influencing the creation of artefacts. Some inspirations were existing pre-commencement of the art studies, with more recent artworks and artists introduced throughout the iterative process of creation.

Hokusai. *Figure 16* by Katsushika Hokusai, utilises the Prussian blue pigment that was popular in Japan (Smith II, 2005). Prussian was cheaper and colourfast (Gleason, 1996; Smith II, 2005), but Hokusai still used the other blues at his disposal such as indigo (Shimoyama et al., 2006), and dayflower (Shimoyama et al., 2006; Derrick et al., 2017). Hokusai painted both the sky and ocean blue in numerous prints, with *Figure 17* an example, holding significance to this doctorate. The strip of blue sky commonly seen in ukiyo-e prints like *Figure 17*, is achieved by hand-painting the graduated blue upon the woodblock before

printing (The Smithsonian's National Museum of Asian Art, 2014). This blue strip inspired one of this doctorate's artefacts where a similar method was employed (see *Drying Weed,* p. 179).

Figure 16

The Great Wave Off the Coast of Kanagawa

Note. Reprinted from "Under the Wave off Kanagawa…", K. Hokusai, ca.1829-1833. Retrieved from https://collections.mfa.org/objects/234428. In the public domain.

Figure 17

At Sea Off Kazusa

Note. Reprinted from "Kazusa Sea Route", by K. Hokusai, 1823. Retrieved from https://www.ohmigallery.com/DB/ItemDetail.asp?item=9357. In the public domain.

Picasso.

Figure 18

Melancholy Woman

[Removed due to copyright restriction]

Note. Reprinted from "Melancholy Woman", by P. Picasso, 1902. Retrieved from https://www.dia.org/art/collection/object/melancholy-woman-57081

Another artist who was influenced by the colour blue is Pablo Picasso. Between 1900-1904 famously Picasso painted a series known as *The Blue Period*, intrinsically using monochromatic blues mixed with tints of yellow for greens (Warncke & Walther, 1997; Pastoureau, 2000/2001). Blue in this series often depicted images of sadness, such as seen in *Figure 18.* The expressive use of blue, and its connection to emotion, is engaged in some of this doctorate's artefacts.

Klimt. Blue representing death can be seen in Gustav Klimt's (1910-1915) *Death and Life* in *Figure 19*. Although blue has been used throughout the painting, it is focused on the left side where Death stands, decorated in shades of blue. Varley (1980) has also noticed dark blue "worn as mourning dress" (p. 59). This artwork is an example of how blue colour symbolism impacted creation. Blue and death is a refrain that also echoed in an artefact for this doctorate.

Figure 19

Tod und Leben (Death and Life)

Note. Reprinted from "Tod und Leben", by G. Klimt, 1910-1915. Retrieved from https://artsandculture.google.com/asset/death-and-life/YgFWoKwjd_ptXQ. In the public domain.

International Klein Blue (IKB)

Figure 20

Région de Grenoble [Region of Grenoble] by Yves Klein

[Removed due to copyright restriction]

Note. Reprinted from "Yves Klein" of The Estate of Yves Klein c/o ADAGP, Paris, 1961. Retrieved from www.yvesklein.com/en/oeuvres/view/14/planetary-reliefs/688/planetary-relief-region-de-grenoble-region-of-grenoble/?of=5

Yves Klein produced many works with a singular blue colour and eventually named it International Klein Blue (IKB) (see Figure 20) (Learner, 2007). Klein wanted a pigment that was not "dulled when combined with a binder" and consequently mixed his blue with a "synthetic binder that would resist the absorption of light waves, delivering maximum reflectiveness" (Schama, 2018, para. 1). Fowler (2014) describes Klein's work as removed of any narrative or context, and often "continuous spaces of color [*sic*]. . . physically extended from the wall into the spectator space asking the viewer to engage with the IKB (International Klein Blue), and color [*sic*] more generally, as a three-dimensional and fully individuated presence" (p. 7). Klein's work is a statement of colour, whose simplicity is also engaged in this doctorate's artefacts, along with IKB pigment.

Klein influenced Derek Jarman (1993) (see Figure 21) who used IKB as the only colour in his film *Blue* (Fowler, 2014; Tumalad, 2016). The surplus of blue colour in *Blue* created an allegory for Jarman's experience of AIDS which turned his vision blue (Fowler, 2014; Tumalad, 2016). Blue symbolically, often relates to death (see *Psychology*., p. 76), and the film *Blue* has "a feeling of death, of the inescapable and known end" (Fowler, 2014, p. 16).

Figure 21
Still from Derek Jarman's Blue

[Removed due to copyright restriction]

Note. Reprinted photo from "Blue" by L. Daniels, Basilisk Communications Ltd., 1993. Retrieved from www.zeitgeistfilms.com/film/blue

Fowler's viewing of *Blue,* (as discussed on page 75), details how the work had become tangible, a physical quality that is of interest to this doctorate:

> The totality of blue made it possible for me to reach out and touch the blue covering my arm. I could feel the blue; I could feel my body heat becoming a part of the blue. The blue had become tangible, transitioning from screen, to room, to body (Fowler, 2014, pp. 2-3).

It is a known fact that colour requires light to exist and be seen (Varley, 1980). Without light, or projectors to display the film, *Blue* would cease to exist in its film form. Consecutively, although *Blue* was made available in sound formats like radio and CD (Fowler, 2014), without light, the IKB blue postcards and fold-outs would not have the same sensory impact. Therefore, some of the Shinkyuu Art artefacts created for this doctorate, utilise light—from

artificial, screens, projectors and natural; and through multi-sensory platforms.

Art Inspiration – Introduced Influences

As this doctorate's artefacts progressed, new artists and works influenced the process of creation. They were recorded in the journals and then included in this literature review.

Language.

Figure 22

Gossamer

[Removed due to copyright restriction]

Note. Reprinted from "Xu Lei" by X. Lei, 2013. Retrieved from http://hiveart.cn/artists/xu-lei/

What happens when an artist changes the colour of the sky from blue, whilst pointing out the difference? Artist Xu Lei did in his exhibition *Veneer of the World* with *Gossamer* (2003) (see Figure 22). The sky can encompass a range of different colours other than blue, such as sunrise and sunsets. Sometimes the sky is a different colour altogether due to artistic choice. What is significant about *Gossamer*, is the knowledge that in some non-English languages, there is one word for blue and green, such as Chinese Mandarin. The words were often interchangeable. Although modern Chinese language has introduced separate words for the two colours, "青" still refers to both blue and green (Geiger, 1868/1880; Varley, 1980; Wielinga, 2017). One word for green/blue was also studied in the Ovaherero/Damara people in South-West Africa, and other non-western cultures according to Magnus (as cited in Berlin & Kay, 1969/1991). Japanese language had previously used the word "ao" for both blue and green, "before Chinese color [*sic*] terms were introduced" (Noma, 1965/1974, p. 159). The same occurrence of green/blue can also be found in "the ancient languages of the Middle East and the Mediterranean basin" (Pastoureau, 2000/2001, p. 16 [emphasis removed]). The Welsh once had a "grue" (green blue) term called "glas", and eventually developed separate terms through "lexical borrowing" (Varley, 1980; Casaponsa & Athanasopoulos, 2018, Five Key Colours

section, para. 1-2). The knowledge that green/blue colour terms are used interchangeably is fascinating, and although it is not examined further in this exegesis, it did inspire artefacts where green was used in-place of blue.

Nanoscale Structures. The already existing research details there are natural occurrences of blue, in nature, that are not pigments due to reflecting light that appears blue. The "precisely arranged nanocrystals"/ "crystalline array"/ "schemochromes" structures, can be seen upon some insect shells, butterfly wings, and bird feathers like peacocks (Varley, 1980; Newsome et al., 2014; Drake, 2015). This doctoral research was interested by the concept of creating nanocrystals structures that referenced this phenomenon. However, the scope of this structure was too large for this doctorate, so ready-made objects such as feathers, were instead employed.

Red vs Blue.

Figure 23

Rise Up [stills from video]

[Removed due to copyright restriction]

Note. Reprinted from "Rise Up Mural", by Insane 51, 2018. Retrieved from www.facebook.com/Insane51art/videos/729753040708721/

In colour psychology, red and blue are inverses by means of their wave lengths— "red is a long wave color [*sic*] and blue is a short wave color" (Xia et al., 2016, p. 1). Red and blue have been competitive opposites in history as predominantly attributed by Pastoureau (2000/2001) and are often used as complementing opposite colours. In modern day examples, media and storytelling often utilise red and blue contrasts. These include television series "Red vs. Blue", to name one obvious example. Red and blue are also the colours for viewing "double exposure

three-dimensional" works, and artist Insane 51 uses this process (see Figure 23). The anaglyph glasses are usually for viewing films in three-dimension, however Insane 51 uses them to create red and blue works that when viewed from one lens, camouflages its colour to expose the juxtaposing colour and reveal an image. Specifically, the blue used is "aqua", hex code #00FFFF. Red was used as a contrast for blue in one of this doctorate's artefacts.Revealed by Pastoureau (2000/2001), red and blue are often implemented together due to their history, and because they complement. For a time, red and blue represented good vs evil or black vs white knight—respectively. He adds that red evokes "opinions and ideologies that are more radical and polarizing" than blue (p. 141). Blue is a complementary colour to orange, which is a mix of both red and yellow, "creat[ing] the sense of variety in tone appropriate to a representation of local colors [*sic*] affected by the play of dark and light" (Bruno, 1977, p. 82). Red as an opposite to blue, is commonly seen in science-fiction films to "alert to danger, errors, or failure--including death", and in the real world in traffic signs (Shedroff & Noessel, 2012, p. 44).

James Turrel. James Turrel is an artist utilising light (both natural and artificial) projections, spaces, and shapes (www.jamesturrell.com) (see Figure 24). Although this doctorate has always been interested in the use of light, such as Derek Jarman's *Blue*, Turrel's work showcases a vast variety of techniques. Trachtman (2003) suggests most art work as a "journal of how an artist sees light" and considers Turrel's work as "it simply is light" (para. 9), "light as a physical presence, a material in its own right, not just something that illuminates the rest of the world" (para. 10). Many of Turrel's works use the blue sky or artificial blue light. Turrel is also interested in human perception with light, being quoted by Trachtman saying: "I want to put you directly in front of light, so you see it with your own eyes, not through my eyes" (para. 9). Although Turrel's medium is light, he also explains that it "is really perception" and he hopes the audience is aware of themselves "sensing", "seeing" and "forming the reality" (para. 11).

The idea of using natural light from the sky and incorporating it with digital elements is a consideration that this doctorate had also deliberated prior. Consequently, it inspired some of the artefact creation. Some examples of Turrel's work that hold the most influence, include his *Magnatron* series, "a small aperture in the shape of an old television screen" combining the sky with the shape and ambience of a television room; *Skyspaces*, a "specifically proportioned chamber with an aperture in the ceiling open to the sky"; and his *Ganzfelds* works, "a German word to describe the phenomenon of the total loss of depth perception as in the experience of

a white-out". It is worth noting that *Ganzfelds* may be the same phenomenon related to viewings of Jarman's *Blue*.

Figure 24
Bullwinkle

[Removed due to copyright restriction]

Note. Reprinted from "Bullwinkle", by J. Turrel, 2001. Retrieved from http://jamesturrell.com/work/bullwinkle/

Tracey Emin. Tracey Emin is a female artist using blue in many of her works. This doctorate agrees with Emin who believes that art can be art, because it belongs to someone who believes it is art—she says: "It's my art. And with being an artist, if you have true conviction about what you're doing and you're doing it for the right reasons, no one can take that away from you" (BBC Newsnight, 2014, 2:33). Such a notion matches Davies (2015) definition of art (see page 20). Emin's work is art, and it is also "personal art", that "emerges directly from her own experience [and] crosses a number of boundaries, making so shamelessly public what is generally kept private" (Meis, 2016, para. 13). Derek Jarman's *Blue* would also be considered a type of "personal art"—it "feels extremely intimate, as if Jarman was attempting to give the viewer himself" (Fowler, 2014). Contemporary artists such as Brooke Shaden, echo that "good" and "bad" art is subjective and intrinsically a personal opinion, that is not definitive of what art is (Shaden, 2020).

Figure 25
My Bed – Tracey Emin

[Removed due to copyright restriction]

Note. Reprinted from "The Empty Bed", by M. Meis, 1998. Retrieved from https://imagejournal.org/article/empty-bed-tracey-emin-persistent-self/

In *Figure 25*, other than the white of the bed itself, objects in the installation are blue with the most obvious being the rug. The clothing and labels are of varying blue shades, next to other

objects of browns and orange tones, with the occasional bridging of colour by green (TATE, 2015). These objects were already existing in Emin's 1998 room (van de Walle, 2017). The commonality of the found blue objects, the readymade nature of the work (Ballantyne-Way, 2017), and the concept of "personal art" (Meis, 2016, para. 13), is significant to this doctorate. Although the artefacts were predominantly considered from a two-dimensional display, small blue objects that could be found or created were integrated into the artefacts.

Figure 26
Laying on Blue – Tracey Emin

[Removed due to copyright restriction]

Note. Reprinted from "Tracey Emin Goes Back To Her Margate roots", courtesy of White Cube, photo by B. Westoby, 2012. Retrieved from https://www.itsnicethat.com/articles/tracey-emin-she-lay-down-deep-beneath-the-sea

Emin has expressed how *My Bed* matches the blue of Turner's paintings hanging in the gallery, saying: "you'd think that I made the bed as a project: Here's a Turner, now make a bed out of it. It's uncanny. The pale blue knickers, that cloud, the sand banks with the sea, everything is just so similar" (Rea, 2017, para. 10). Attributed by Ballantyne-Way (2017), both Emin and Turner were Margate residents, exposed to the town's "sea and skyscapes" (para. 6), which are aligned with the colour blue. More recent blue work by Emin includes the series *And She Lay Down Deep Beneath the Sea*, using blue gouache. Predominantly the works are female nudes, including *Laying on Blue* (see Figure 26). Alderson (2012) describes these blue paintings as "confident, fast, loose and bright in the dazzling white space. Human forms rendered as energies, with occasional snippets of text, a dialogue about relationships in turns sweet and

vaguely unsettling" (para. 5). Novelist Winterson (2012) also notices that although blue is often the colour of masculinity, it is used in this series instead by Emin as a profound statement of femininity—of "a woman drawing on herself as a woman" without male gaze (para. 11) a "Madonna blue . . . potent lapis – female alchemy – sea-blue" (para 13). Tracey Emin uses herself as model for paintings of women. She specifies: "If I want to make a painting of a woman, who do I make the painting of? Me, I use myself. I don't go get another woman and use her" (Illuminations Media, 2007, 1:19). Like other female artists such as Frida Kahlo, representation of the self as an artist is important to this doctorate, without male-gaze.

Not pictured here are other works by Emin using blue, such as *Red, White and Fucking Blue* (2007) with the text "Fucking Blue" in neon blue colours; *Everyone I Have Ever Slept With, 1963-95* (1995) using a blue tent; and *The Last Thing I Said Was Don't Leave Me* (2004) with a blue beach hut. These works show a contemporary artist with a penchant for using the colour blue. The works are not to be dismissed as just "a provocative bit of sexual exhibitionism", as when looking into the work, Meis (2016) specifies there is profound meaning beyond the surface (para. 14). Profound meaning can also be found in this doctorate's artefacts through looking beyond the surface.

Blue Popularity

As argued by Pastoureau (2000/2001), blue was not always a popular colour like today in Western societies, as it was unpopular in Ancient Rome. An alternative source agrees with Pastoureau, to the extent that blue was not as popular as other colours (Fessenden, 2015). Pastoureau (2000/2001) has also alleged, unjustifiably, that ancient Roman authors "cared little for blue" because they did not provide a name for it (p. 26). The notion that a colour can be "popular" in ancient times is disputeable, and brings forth questions on lexicon history that are not detailed in Pastoureau's work. He conflictingly states that "Roman mosaic employs blue tones extensively" (p. 32), generating reservations to whether it was really unvalued, or if blue glass was simply more accessible than pigment since the earliest colouring for glass was a violet blue (Varley, 1980). Blue was not a central part of the Ancient Roman four colour art pallete, however blue was still used for shading and tinting (Bruno, 1977; Ganio et al., 2015); and for underpaintings (Fessenden, 2015; Ganio et al., 2015). Bruno (1977) advises, that dark blues could have been seen by some ancient cultures as more black or "dark" in both name and pigment, instead of blue. What Pastoureau (2000/2001) does plausibly suggest, is that blue did not "play an important role in either their daily lives or their symbolic system", hence

it was uncommonly used as pure colour, apart from backgrounds (p. 25). Although blue was not often employed as a pure colour, it does not mean it was necessarily unvalued. The lighter blues the ancient Greek Romans had were often reserved for sacred objects (Bruno, 1977).

Blue is seen more commonly in the digital world today. For example, it is the predominant colour of social media platform Facebook, and was chosen for being "the richest color [*sic*]" for owner Zuckerberg who is colour blind (Sutter, 2010, The Reason section, para. 2). Without many natural blue pigments, technology was engaged to create them (Coles, 2018). Blue is readily displayed on computer screens and mobile devices. Other examples are programs *Microsoft Word, EndNote,* and *Internet Explorer*, which all feature blue logos or interfaces; and "hyperlinks" on the World Wide Web. The screens and technology interfaces of most science-fiction films from 1968 to 2011, on average, used the colour blue (Shedroff & Noessel, 2012; Greenspan, 2013). A reason, according to the researchers Shedroff and Noessel, is that the colour is "fundamentally in-human (or unnatural) and that really fits the technologies of the future world (as contrast)" (Morris, 2013, 3:50). They emphasise the research is not scientifically sound, however, it is very clearly shown that "sci-fi interfaces are mostly blue" (Shedroff & Noessel, 2012). Mark Coleran also suggests this is partly due to blue being an easier colour to edit, that suffers minimal changes, when warm-coloured set lights are edited (Shedroff & Noessel, 2012).

Pastoureau (2000/2001) alludes blue was one of the first colours, excluding black, grey and white, to be introduced to "the first household appliances" (p. 113). It is unclear what appliances were blue, although he does mention clothing (jeans, uniforms). Current research shows that a standard object such as an ink pen—which still exists despite integration of digital technology (Eberhart, 2014)—is generally favoured in blue or black ink, with blue preferred for deciphering signatures on black and white forms (Bridges, 2015), or for memory recall (Giovino, 2014). Blue shows a lot of commonality in logos and branding, technology interfaces, and online community. Blue is also one of the three primary colours (Xia et al., 2016), meaning it is often implemented, in the education classroom. Despite commonality in the modern world, Narayan Khandekar, according to Rosenberg (2016) says there is more attention paid to colour in artworks than on everyday objects. The popularity of blue is such that there is a wall dedicated to artworks in blue, approximately 1km in length in Lisbon (Galeria de Arte Urbana, 2013; "Faces of the Blue Wall", 2015). The artwork stands out "not only due to size but also through the heterogeneity of the interpretations on show" ("Faces of

the Blue Wall", 2015, p. 11). The experience of the wall is described as "a deep blue sea and . . . the faces appear to stare at us" (Galeria de Arte Urbana, 2013, p. 1).

Indeed, for Western cultures blue was "the favorite color [*sic*] in the nineteenth century" and "remains the case today" with "more than half the people polled in Western Europe and the United States" since World War I, indicating "blue is their favorite color [*sic*]" (Pastoureau, 2000/2001, p. 170), and is generally preferred (Dr. Zhu, as cited in Belluck, 2009). It was considered the favourite for participants in a recent worldwide survey according to Jordan (2015); and the most prevailing colour on ten popular websites from a 2016 study, other than grey (Herbert, 2016; Rhodes, 2016). There are discrepancies in this claim of popularity. Pastoureau (2000/2001) admits that although the majority of Western Europe and United States prefer blue, Spain and Latin America preferred red. The studies also applied to adults only, and most children under the age of ten preferred red. Red has been proven to be more effective for short-term memory recall than blue (Giovino, 2014). It is likely that blue prevailed as a popular website colour in Herbert's (2016) study, because advertising is often "the motor behind these color polls" (p. 172), and the principal online audience is certainly adults. A Japanese colour survey showed that white was the preferred colour, then black and red consecutively—quite different to the Western polls (Pastoureau, 2000/2001). This Japanese survey demonstrates how colour "phenomenon is defined, practiced, and lived differently according to the culture in question" (Pastoureau, 2000/2001, pp. 174-175). Regardless, blue is undoubtedly still a popular colour. The discrepancies in the polls may be due to answers being reliant on fast decision-making, and without context such as preferred clothing colour, or shade of blue (Pastoureau, 2000/2001). Although blue is not the favourite colour according to this one poll in Japan, indigo (see page 88) and dayflower (page 82) still have a place in their culture and tradition (Feller et al., 1984; Whitmore & Cass, 1988). The colour blue was found to be popular enough, in both digital and analogue realms, to be the frame for this doctorate's research.

Absence of Blue

The absence of blue is also given attention in this doctorate. Previously, researchers advised that the naming of a colour is key in perceiving the colour (Varley, 1980; Roberson et al., 2006; Hoffman, 2013; Loria, 2015). The absence of blue was also distinguished in an experiment by Guy Deustcher. He explained that without directly labelling the sky blue, his daughter struggled to name it as "blue", despite already being familiar with the colour in other instances

(Abumrad & Krulwich, 2012). Furthermore, blue was not one of the initial primary colours (Coles, 2018). This doctorate created artefacts focusing on both blue, and blue absent, to discover its influence on arts practice. The absence of blue was keenly felt in a series of Shinkyuu Artworks framed by blue. This experiment provided an original contribution to knowledge in understanding the choices made when a thematic colour is intentionally removed from a project.

In summary, this literature review presented a history of blue pigments that informed the artefacts. Blue has numerous symbolic connotations that are often contrasting. Each pigment discussed had unique characteristics and could be applied to art. This review serves as a valuable contribution to art literature and knowledge, while also framing my choices for the artefacts. In the next chapter, the research design of this doctorate is configured and structured.

Chapter 3: Research Design

With the research literature on hybrid/fusion media and the colour blue addressed this doctorate can now present its research design. A personalised methodology specific to Shinkyuu Art creation was required. Previously, in the *Introduction* chapter, the relationship between artefacts, journals and exegesis was described, in addition to exhibition intentions. In this chapter, practice-based research is configured and structured towards Shinkyuu Art. Included also, is an explanation on the relationship between blue and Shinkyuu Art, and guidelines for the autoethnography and journals. The doctorate's research limitations and ethics are also provided.

Methodology

Practice-Based Research

A practice-based research methodology was engaged in this doctorate using Candy and Edmonds' 2018 definition Through this methodology with the creation of personal artwork, I acquired in-depth knowledge of the process of Shinkyuu Art for research. The research was based on practice through artefacts, contributing to original knowledge through introducing a new medium, with visual presentation. The theme of blue provides cohesion between the works and contributes to further understanding in personal colour psychology. This exegesis explains, explores, and defines Shinkyuu Art in words, fulfilling areas in the literature on fusion art. As Candy and Edmonds (2018) state, "the creative works cannot be expected to speak for themselves" and consequently are presented alongside this exegesis demonstrating "critical reflection" (p. 65). To restate, I documented my art process whilst creating artefacts, and examined it critically and objectively through journals to enable recall during the reflection stages of the exegesis (Perry, 2007; McNiff, 2008; Ellis et al., 2011; Prior, 2012). Furthermore, the outlined process confirms transparency and rigour for readers and examiners, when assessing this exegesis. The journals were the link between artefacts and exegesis that interacted throughout progression. The journals contribute answers to the research questions and provide further reflexive understanding where the artefacts alone cannot.

Creative Process

Outline. A series of artefacts using Shinkyuu Art practice, influenced by the colour blue, was created for this doctorate. This was achieved through art studies and practising Shinkyuu Art, fusing various combinations of materials and methods from both traditional/analogue, and digital media/computer-generated media. The colour blue was engaged in different forms—through pigment, material, and light. These studies were compared to other mixed media artworks, processes, and techniques, and informed the artefacts. These artefacts aimed to identify, refine, visualise, and evaluate a range of characteristics that define the specific and unique qualities of Shinkyuu Art. The artworks are presented in a 2D format, although some artworks require 3D displays. Journals recorded observations and documented the entire studio process, including photographs, rough studies and samples, and notetaking methods and materials. The journals served as a part of critical reflection. Feedback from supervisors was also used to gain outside perspectives. The creative process outlined by Gerber et al (2012) and noted as following, was engaged in this doctorate:

> "(1) spontaneous visual arts . . .
>
> (2) real-time and reflective journal writing about the intersubjective artistic experience;
>
> (3) discussion or intersubjective reflection;
>
> (4) reflective and integrative artistic response; and
>
> (5) analysis and synthesis". (p. 40)

The quantity of works created was not set due to the necessity to address the research questions. This number was determined as artefacts were finalised and was dependant on the scale of each individual work. Art studies were also included as separate pieces to showcase the process of Shinkyuu Art. An exhibition will be conducted to showcase the artefacts in one location. This exhibition is a vehicle for display and is not the artefact itself. The final quantity of artworks included as part of the exhibition, is approximately forty-one individual works, assembled into twenty-six sets. For a more comprehensive breakdown of this doctorate's creative process, see *Shinkyuu Art Methodology* earlier on page 23.

Exhibition as Showcase. An exhibition is a recommendation outlined by Candy and Edmonds' 2018 definition for practice-based research. While they specify it is "demonstrably difficult to achieve a truly complete experience" of an artwork itself "given the nature of art experience, it is important that access to the closest realization of the work is provided" and consequently this doctorate has chosen to achieve this by an exhibition of the artefacts. The exhibition is a showcase of the artefacts—a place where they will be presented as authentically as they can. Certain artworks cannot be viewed through a digital-only lens. The artefacts are of visual arts nature and thus are presented visually. The exhibition itself is not an individual artefact despite being a place for the collection of artefacts. There are numerous factors involved that are outside the control of the doctorate and such factors influence how the exhibition itself can be presented. For example, the studio rooms may have limited hanging space and lighting controls, or availability of equipment such as tables and computers; the equipment required may be outside the available budget; and the pandemic situation may affect what spaces may be used, and how artefacts may be physically handled by visitors. Such factors cannot be controlled by the artist-researcher within the scope of the doctoral research. What will be controlled is the specific setup that many of the individual artefacts require. The exhibition space will be used as the place for the artefacts to congregate and be presented for individual examination.

Blue and Shinkyuu Art Relationship. The *Introduction* (see Figure 2, p. 24) details that the relationship between blue and Shinkyuu Art is inter-connected in this doctorate, although both *Blue* and *Shinkyuu Art* in *Figure 1*, can be seen as separate entities. Blue is focused on in this doctorate as it is a reoccurring theme that emerged from initial pilot studies; and to reduce the scope of the doctorate by limiting research to a single colour (see *Limitations* page 119). In this doctorate, the artefacts explored the nexus of *Shinkyuu Art* and *Blue* (see Figure 27). This figure demonstrates a circular process in which *Blue Shinkyuu Art* can be created.

Echoing *Figure 1*, creating blue themed *Shinkyuu Art* is not always a direct process from combining *Blue* with *Shinkyuu Art*, or vice versa to end at *Blue Shinkyuu Art*. The process can begin at any section in the circle and follow a motion clockwise/anti-clockwise, and end back into a state of being *Blue* only, or *Shinkyuu Art* only, regardless of where the process began. Undeniably, *Blue Shinkyuu Art* can have its *Blue* elements removed and become fundamentally *Shinkyuu Art*, for example. The goal of this doctorate and *Figure 27*, was to create *Blue Shinkyuu Art* through combining *Blue* pigments, materials, and light—both digital

and analogue, with processes, methods, and materials that are also both digital and analogue. The work was informed by individual artefact requirements as it developed iteratively. This methodology focuses on creation, process, and practice methods.

Figure 27

Blue Shinkyuu Art

- Blue
- Shinkyuu Art
- Blue Shinkyuu Art

The analysis of artefacts and summoning a new mode of art and research, highlighted an understanding of how blue can influence Shinkyuu Artworks and the practice engaged. Intentional or unintentional symbolism was revealed. Other surprising enquiries, such as adjacent colours stimulated from blue, emerged. The process also included how digital and analogue blues were combined.

Materials. The following is a provisional list of the materials used through the art and research process. As art is progressive, these materials changed and evolved as the doctoral research developed. Please also see the *Glossary* for some definitions.

Pigment: Usually in powder form, pigment is mixable with binders, and often readily available in different colours.
Binder: Mixable with pigments to turn into paints or drawing mediums, binders come in many forms.
Paints: Paints are a physical medium and is an area of expertise known by the artist/author. Some pigments are only available in paint form. Paints include watercolour, oil, and acrylic. Acrylic paint allows for quick drying texture.
Drawing Tools: All physical drawing tools were utilised in the artefacts as required, however, pen, pencil, ink, and wax pastel, were predominantly featured.
Computer: The computer allowed for creating digital imagery such as video, AR, Glitch Art, and animation.

Touch screen drawing tablet: These tablets allowed for a hands-on approach to drawing, as well as physical interaction for some artefact installations, particularly those involving AR.

Monitor Screens: Monitor screens and similar, were used for displaying a digital image.

Projector: The projector was used to display an image—both older technology and newer technology projectors, were considered in the studies. Newer technology is digital, whereas the older technology, requires physical transparency sheets to display.

Canvas: Canvases were used, including material canvases, glass, paper, and wood.

Photograph/Video: Videos and photographs were taken, as both documentation and for the artefacts.

3D printing: 3D printing is mentioned here, as it was intended to be utilised, however was not realised in this doctorate. Other 3D elements were instead acquired, which lead the artworks into *interactive art* areas using sculptural elements and installations.

Autoethnography

Although other research methods were investigated, autoethnography within the context of journals was the most appropriate. Please see prior section *The Autoethnography Method* on page 37 for the literature. Autoethnography was engaged as it borrows from "individual reflexivity" written from personal experiences (Rolling Jr, 2013) and I am the only self-named Shinkyuu Artist I know. Consequently, an autoethnography allowed me to review the "societal phenomenon" or "culture" of Shinkyuu Art, that I exist in (Wall, 2006; Ellis et al., 2011; Rolling Jr, 2013). The material reviewed for the autoethnography in this exegesis, included both past and present experiences (Ellis et al., 2011), "hindsight", and "recall" (Perry, 2007; Ellis et al., 2011). Journals also offered written and visual documentation for reflection; and opportunities for reviewing patterns and themes.

Journal Details. The journals, except for the pilot journal, generally included the following fields:

- Date:
- Traditional or Analogue Medium:
- Digital or Computer-Generated Medium:
- Blue:
- Theory/Artist/Concept/Inspiration:
- Initial thoughts/memory:

- [In-Progress Photos]
- Self-Observation and Future Test/Improvement:
- [Finished Work Photos]
- Reflexive Observation:
- Resonance of Blue:

By naming these base areas, the artefacts could be recalled for how they were created and provide transparency for examiners. The journals recorded all activities, thoughts, and emotions, and towards the end of doctoral research, were reflected upon and evaluated for the autoethnography. Using Reflexive Practices as a guideline (Haysom, 2005; Sullivan, 2010), my step-by-step process was:

1. Self-Reflective: I reflected on the art studies as I created and documented them.
2. Reflective: I reviewed the concepts and strategies used and considered the approaches that may better the doctoral research, with feedback from my supervisors.
3. Dialogue: I reviewed my documentation (journals) and discussed the work with myself and supervisors.
4. Questioning: I addressed content that was problematic and attempted to solve them through dialogue with supervisors, to achieve the best outcome.

The date was imperative to show the length of time between thoughts and processing. Both a traditional medium and digital medium were required, as they are integral to Shinkyuu Art creation. With blue the theme of the artworks, a blue colour was generally nominated. Inspiration for the studies was documented, to link with the literature, prior knowledge, and cultural influences. All initial thoughts and recollections on an artefact were recorded, to then compare to thoughts made after its completion. These observations were assisted, with visual imagery from both in-progress and finished works, and regular written annotation and notes. Suggestions for future improvements and the actions taken were also documented so that each doctoral study could be continued from where it concluded or be archived.

Once an artefact was complete, written reflection on the final product, its relationship with Shinkyuu Art, and how blue framed the work, was used to answer the research questions to provide a contribution to new knowledge.

General Structure.

Table 2

Examples of Different Analogue/Digital Techniques and Blue Types

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Paint / Drawing	Paint / Drawing	Natural Pigment / Objects
Projector	Monitor Screen	Synthetic / Artificial Pigment
Real Life	Camera	Natural Blue Light
Hand Printing	Digital and 3D Printing	Screen Blue Light
Natural Light	Projected Light	After-Image (orange)
Viewer Interaction	Projected Image	None
Other	Other	Other

Table 2 provides possible variation examples in Shinkyuu Artworks based on the *Medium* and *Blue* chosen. The artefacts showcase a unique assortment of variables, some of which are not yet presented in arts research or contemporary art, to my knowledge. *Table 2* was adapted in relationship to each artefact, with the following guide, for creating Shinkyuu Art:

1. At least one medium in each column chosen, and one blue.
2. Define how the media, materials, and methods, combine as Shinkyuu Art, and how blue influences the work.
3. Record results and process in the journals.
4. Reflect on the art study and make changes/improvements as required. Reflect on these changes as well.
5. Repeat the process with different media, materials, methods, or blues, as needed.
6. Select prominent studies to create or adapt into a refined, final work, as an artefact.
7. Extract data from the journals that answer the research questions, to review and reflect, in the autoethnography.

Although Shinkyuu Art was the predicted outcome, "art offers different and complementary ways of knowing" and as such there was "an infinite variability of outcomes" (McNiff, 2013, p. 7), although the doctoral research was structured. I chose to embrace the "chaos" as McNiff (2013) suggests, in terms of practice and artefact creation, to allow for a "spontaneous

emergence of discovery" from the research (p. 7). Spontaneity is something we already do in everyday life—navigating "the unexpected by improvising" (Sajnani, 2012, p. 79). Improvising extends "knowledge and skill" when artists are "forced in some cases to handle unfamiliar materials and to try new processes" (Milroy, Wegener, et al., 2015, p. 1). "Chaotic creativeness" was mentioned many times throughout the journals of this doctorate (see *Chapter 4: Autoethnography,* p. 121; and Appendix B). All "insights from making, reflecting, and evaluating [were] fed back directly into the artifact [*sic*] itself", including accidents and mistakes (Candy & Edmonds, 2018, p. 65). This creativity benefited the artefacts that formulated, and informed Shinkyuu Art practice.

Limitations

This doctorate is limited by the following restrictions that serve to reduce the scope of research and permit comprehensive enquiry. Firstly, there is minimal focus on Shinkyuu Art in education, as Shinkyuu Art was not yet an established medium and practice. Shinkyuu Art requires prior recognition before being contextualized within theories of teaching and learning and within arts history. Secondly, surveys and interviews involving opinions on Shinkyuu Art, from people outside the doctorate, were not collected. As an autoethnography, the exegesis is from my evaluation, making the writing subjective. However, the results were analysed objectively. As stated by Barclay and Gifford (2018), "subjective perception" and "objective theory validation process[es]" do not need to be "mutually exclusive" (p.184). I am similarly aware that such results are subject to different interpretations, as acknowledged by Brophy-Dixon (2012): ". . . the relationship with the art changes. I can now invite others to view my work and I can risk misinterpretation" (p. 70). Thirdly, the artefacts are intentionally diverse and include a fusion of visual arts, media arts, and installation arts; however, the range of media changes and adapts for each artefact. Resultantly, some artefacts required manufacturing pigment, although this is in an exceptional case where the material was not readily available, and it was significant to the research. Some artefacts required experimentation with sound, although sound is not a specialised area for the artist-researcher. Regardless, the focus of the artefacts remains on the visual arts. These artefacts and Shinkyuu Art culture, were not categorised as High or Low. Neither was it possible to explore all blue pigments in existence, so certain pigments were carefully chosen. Fourthly, the work created in this doctorate is to be catalogued as art since it is Shinkyuu Art. Arguments surrounding art definitions will not be settled within this doctorate. Lastly, an exhibition is intended for

displaying the artefacts as part of examination. This upcoming exhibition, however, is not the artefact itself nor does it inform this enquiry. Planning the exhibition itself is outside the scope of the research, where it was deemed more integral to instead plan the setup of each individual artefact using the exhibition space.

Ethics

The Copyrighted material within this doctorate, is used under a Fair Use policy, for educational purposes at *Flinders University*, and under statutory licence. In the case the journals are widely published, any person mentioned will remain anonymous to protect their privacy, unless they have given prior permission. As interviews and surveys were not conducted, and the main person involved was me, ethics was not required. As interviews and surveys were not conducted, and the main person involved in creating artefacts to contextualise and conceptualise a new art medium was myself, ethics clearances were not required. New data sets were summoned through artefacts, rather than intervening in the lives of others.

To summarise, the Shinkyuu Art artefacts created for this doctorate involved combining analogue/traditional media with digital/computer-generated media, through various techniques, methods, and materials, that are both known and were unknown to the author/artist. Materials form an important link between the colour blue and Shinkyuu Art. The suffusion of blue across the artefacts provided not only a suggestion of materials and directions that could be followed, but it also linked each individual artwork and doctoral art study to common ground. These materials informed the artefacts. Having a frame of blue provides cohesion for the artefacts, despite the myriad variations possible within Shinkyuu Art creation. The research design outlined is unique to this doctorate and created for Shinkyuu Art, with the journals as documentation of artefact creation, and data for the autoethnography that follows.

Chapter 4: Autoethnography

Comprehensive data sets from the journals were employed to frame and inform the creation of artefacts. As Shinkyuu Art is medium and practice, the journal documentation was paramount, and thus selected moments from the journals are included in the *Appendices*. The journals and artefacts serve as data and were reflected upon in the following autoethnography. This data was also analysed to answer the research questions. This chapter divulges the insights that occurred when creating fusion art, how the artefacts did or did not create new knowledge for practice, and discusses the potential of blue as a frame for creating Shinkyuu Art during the doctorate. If possible, it is recommended to view the exhibition planned for this doctorate, as close together, or in tandem, to the reading of this chapter.

Initial Reflections

The research questions informed the artefacts as they were created (see page 27). To help answer these questions, the journals served not only as a record of 'how' the "ARTefacts" (artwork artefacts) were created, but also 'why' they were created, framed by the literature review. The following is written in first-person due to the autoethnographic nature of journals for research. Please refer to the *Appendices* (see page 261) when specified, for excerpts from the journals. There were numerous journals created—one is a pilot study, and then three other journals organised by year. These journals are large files and therefore are included as separate documents from this exegesis. Referenced journal sections are however, amalgamated in the *Appendices*. Some entries were edited for clarity, although most are primarily unprocessed.

The pilot study journal was an initial confirmation for the blue theme chosen for doctoral research. I created various initial artworks that were Tradigital Art, Shinkyuu Art, and occasionally non-fusion art. My preliminary intention was to create ARTefacts using the colour blue as subject matter, as Shinkyuu Art is a medium and tool for creation and not the subject. I had come across fascinating information about blue colour, that spurred the idea of exploring it in research. With the pilot journal complete I can emphatically confirm blue was an unchanging theme for creating fusion artwork. The pilot was a validation of blue as a theme (see Figure 28, Appendix C, and Appendix A). Art themes highlighted in the pilot journal, other than colour, included texture, process, and progress, light and dark, digital, and traditional and so on (see Figure 28). However, these already form a part of Shinkyuu Art as

medium. From the pilot study, there were other themes highlighted, although some were overlooked by *Figure 28*. These were gender, feminism, ethnicity, health, and appearances. These themes are, nonetheless, personal, which although can inspire some artworks, are not beneficial towards Shinkyuu Art research. Instead, I looked at the colour blue and its relationship to Shinkyuu Art.

Figure 28

Mentions of Specific Words in Journals Prior to 16-09-18 Adapted from Wordle App

	Above 25 Mentions		10-24 Mentions		Below 10
245	blue / Blue / blues	24	water	9	brush
103	colour / coloured / colours	23	sky	9	screen
82	paint / painting / painted / paints / acrylic	22	dayflower	9	mixed
		22	green	8	teal
75	light/ lights/ daylight	18	names / name	8	purple
59	Art / artwork / art / artists	18	white	8	orange
57	make / create / creating / process	17	traditional / Traditional	8	expensive
		16	ink	8	Rainbow
49	photograph / photos / photo / film / video / picture	15	yellow	7	character
		14	Japanese	7	indigo
48	digital / Digital / digitally	14	drawing	7	synthetic
47	paper	14	texture	7	highlights
33	dark / darker	13	vivid	6	tones
30	Shinkyuu	11	Medium	6	word
29	pigment / pigments	11	red	6	culture
27	print / printed / printer	10	dye	6	contrast
		10	black	6	new
		10	hair		

As I evaluate in Appendix C,

> I felt like discussing 'body image' next to Shinkyuu Art, would be like 'lopping' it on without care. Yes, it may provide a common theme, but it also looked at things I felt separate to the process and progress of Shinkyuu Art which I believe is important.

A journal entry dated 23/01/2018 from my *2018 Journal* also states, "I spoke about [other] colours in general… and [purposefully] ignored blue [but] blue definitely was the only thing that 'clicked'", (p. 1). These testimonies confirmed that no theme would be appropriate for Shinkyuu Art unless it related to its process and progress—an essential part of creation and practice. Appendix C also details that using blue provided a "best of both worlds" scenario. Blue's specific history of rare and sought-after pigments meant that access to it could be limited. However, when used in complement with digital blue—which is readily available—an artwork could showcase and highlight blue in new ways. Thus, in researching Shinkyuu Art as

a medium, tool, and process, the decision was made to explore personal colour theory as an artist-researcher. Blue as a theme motivated the creation process in innovative ways. By restricting and limiting artwork creation to one colour and medium, it was possible to pinpoint new emerging knowledge. We know in history that artists have used blue as a theme before—Picasso, Hokusai and Yves Klein are some renowned artists. I follow in their footsteps, however through the eyes of an artist-researcher, documenting my steps as well as my thoughts. Having documentation of the processes allowed me to reflect on them after the work was completed. It also allows my artefacts to be replicable and repeatable to a degree.

Creativity can evolve from restriction. This premise is repeated by actor Nathan Mitchell, who says restriction "narrows your focus as an artist but it also offers a lot of creative freedom" (Corey, 2020, 18:54-19:03). Creativity from restriction was also confirmed by metalsmith artists, who created wearable art using what was known as "junk" and a "variety of oddments" (Milroy, Wegener, et al., 2015, p. 1). Indeed, creativity can manifest from limitations. Shaun McNiff (2013) has previously discussed creativity emerging in chaotic situations. A situation could include working creatively with accidents. Georges Méliès at the start of the last century, discovered "substitution splicing" by fixing an accidental mistake (Ezra, 2000). In *Creativity from Constraints: The Psychology of Breakthrough*, Dr. Patricia D. Stokes (ca. 2006) looks at this observation—the use of "constraints to promote creativity" (p. xii) and "barriers that lead to breakthroughs" (p. 7, [emphasis removed]). In the ARTefacts section of this exegesis, there are examples of creativity that occurred through limitations, chaotic situations, and accidents. Some of the limitations were due to initial guidelines on creating Shinkyuu Art, whilst others emerged as ARTefacts developed.

Though the intention behind this doctorate was to effectively document the process, it became apparent that although writing events simultaneously was more accurate in terms of timeline, it hindered the creation process. Often, the entries were written in retrospect, recalling memories, and newly formed thoughts looking backwards. This process matches readings by Perry (2007) and Ellis et al. (2011), on journal documentation for reflection. I believe the photos and notes taken were adequate in providing the recall needed to complete detailing entries (see Appendix D). The numerous visual images that were consistently documented, worked as keywords for recall and recollection of events. The photos may have correspondingly aided in memory retention, as drawings have been known to be effective for memory recall (Meade, Wammes, & Fernandes, 2018). The format of the journals adapted and evolved, from a three-part, single column break down with textboxes; to three columns with

the intention to reflect in three mind frames; and the eventual two columns, with a final third reflection, embedded into this document.

Initial Definition

Prior to this doctorate, the creation and definition of Shinkyuu Art was not explored and examined in academic literature. As such, an initial definition was presented (see page 18), as a basis for preliminary research. This definition sought to diverge from Tradigital. The new term of Shinkyuu Art required testing by comparison to similar contemporary art in the literature reviews, and through utilising practice by creating new Shinkyuu Arts based on its definition (see later *Studies* and *Exhibition ARTefacts,* p. 121). The journals are the written accomplice to the ARTefacts, allowing me to compile new and old thoughts and understandings on Shinkyuu Artworks, before progressing into the exegesis presented here. The ARTefacts presented several different challenges and ways for creating Shinkyuu Art. It is now possible to clarify the initial Shinkyuu Art definition proposed.

Successful Shinkyuu Art?

While I worked on my Shinkyuu Artworks, I often questioned whether a work I created was 'successful' (Appendix E, Appendix F, Appendix G, Appendix H, Appendix I). Was the work useful or pointless? This melody of worthiness, echoed throughout the journals, and was previously mentioned regarding Tracey Emin's statements (see page 106). Was the work I creating a worthwhile type of Shinkyuu Art, or was it another type of Tradigital Art? Could the artwork clearly be described as, or matching, the initial definition, or the *Shinkyuu Art Model* (see Figure 3)? Were there alternative ways I could push artefacts to help blend the boundaries between analogue and digital? Had I pushed an art study too far, or not enough; or had it reached its potential limit? The more I created Shinkyuu Art, the more I questioned its place with fusion art. The blues occupied me, as both theme, and disposition. All these thoughts and concerns were documented in the journals, including the trials and challenges, and failures and successes I faced, whilst practicing Shinkyuu Art.

During this doctorate, I found my association between print and photography—as only a part of Tradigital Art—to begin to diminish (see Appendix E, Appendix F). Both print and photography transition between the analogue and the digital. However, my avoidance in using these tools—because they were more Tradigital rather than Shinkyuu—was incorrect. All tools should be implemented when available. In fact, all the tools available—past, present, and in future, will ultimately integrate into Shinkyuu Artworks, and should be utilised if found to

be appropriate. Shinkyuu means new and old, and thus, it is timeless and unrestricted by how old or how new a medium is—it evolves and adapts.

Some methods were used to bridge behind-the-scenes progress into the exhibited ARTefacts (see Appendix J). A large portion of my studies were influenced greatly by the physical analogue materials—the blue pigments and paints themselves. I had placed this restriction upon myself—a theme of blue. However, I was never bored by using predominantly one colour, nor controlled by it. Moreover, I found that my aims at creating Shinkyuu Artworks would sometimes be a hindrance. Sometimes, I would try adding digital elements to an analogue work, when I personally felt it did not need it, or vice versa. Generally, I planned for works to be Shinkyuu Art. Other times, I started with a blue pigment and built from there. The latter I found harder to transform into Shinkyuu Art. Consequently, Shinkyuu Art could be dismaying. Allow me to explain: Here, I am attempting to create a series of Shinkyuu Artworks—a medium I love to use; however, constantly quantifying the quality of Shinkyuu Art made it harder to accept an artwork as 'Shinkyuu Art worthy'.

This notion revisits my prior association of printed digital imagery as being a Tradigital method that is not Shinkyuu Art. What then, could I do further, to qualify an existing work as Shinkyuu Art, if I see no other pathways? Firstly, I could accept that the work I created is Tradigital Art, and not Shinkyuu Art. Or, I could also accept that it is a form of Shinkyuu Art, the term replacing what I previously knew as Tradigital. Or, that my initial definition of Shinkyuu Art (see page 18), which includes that it "focuses on intently highlighting certain differences and similarities of traditional and digital media within an artwork. Commonly, this is texture, however it can be other elements"—is mutable (see Appendix K). In Appendix L in particular, I found working predominantly with physical materials, reduced my necessity for distinct textures within the artwork. There can be a deciding factor—if I have not distinguished the digital and analogue differences in an artwork clearly, have I truly made Shinkyuu Art? Then again, the bare essence of Shinkyuu Art is in the first paragraph of its definition—a "work that combines "new and old" techniques, methods and tools", which is also emphasized by *Figure 3 Shinkyuu Art Model.* Perhaps "new and old" is the fundamental requirement. However, new things become old quickly, especially in a technological world. I asked myself the same question when pondering *Into the Spiderverse* (see page 64, and Appendix H). Having lived the experience of creating Shinkyuu Art over the past few years, I reflect, and over-think, and analyse the work in retrospect, regarding whether something was Tradigital or Shinkyuu Art.

Shinkyuu Art was developed with the intention to be art, and for the noun to be reflected upon for the purposes of research. What is apparent is that there is internal conflict surrounding the question of "successful Shinkyuu Art". Fortunately, that is not the specific research question I am striving to answer in this exegesis; however, it is worth mentioning as it alters any new definitions for Shinkyuu Art. Shinkyuu Art is undoubtably a morphable and adaptive medium. Initially, I wanted Shinkyuu Artwork to be visceral, tangible, and physical. To an extent some ARTefacts are this, and others are not. The researcher in me, believed it could be a key difference between Tradigital and Shinkyuu—however, it is not. In fact, texture is also an element in visual arts, although not always. What this doctorate reveals, is that a singular work can be both Tradigital and Shinkyuu Art, based on how someone perceives and names it. This perception can be a subjective and interpretive matter. What is unchanging is the intention behind each work to be Shinkyuu Art. As mentioned in Appendix F, "the fact I thought of it as Shinkyuu Art, makes it more Shinkyuu. Perhaps it is in the intention... and by placing a name with it". Was it successful? Perhaps. As mentioned by Brabazon et al. (2020), "[a]rtistic 'quality' cannot be examined. Research can be examined" (p.10).

Studies

The studies and tests that were not included for exhibition are vast and diverse. Studies that are important to note are listed in this section. The work remains included in this exegesis as failures can also contribute knowledge. Such failures highlight flaws in the process chosen to create the artefact and is valuable.

Ink (Study)

A series of various blue drawings were illustrated based on the name of the ink used. These sketches did not eventuate into a single artwork, despite initial thoughts to do so. However, some of the inks were used in other work. Examples of the ink drawings are seen in *Figure 29*. Although any imagery could have been drawn, having a name to base the drawing on, made the process straightforward. It was more difficult to draw something without a reference point, highlighting the importance of history and names, in relation to colour. The ink colour *Kyo no Oto* did not mean anything to me prior to researching it and gaining an association I could conjure images from. Without the name, I would only associate the colour as being green-blue—no other images came to mind with that factual description.

Figure 29

Ink Studies
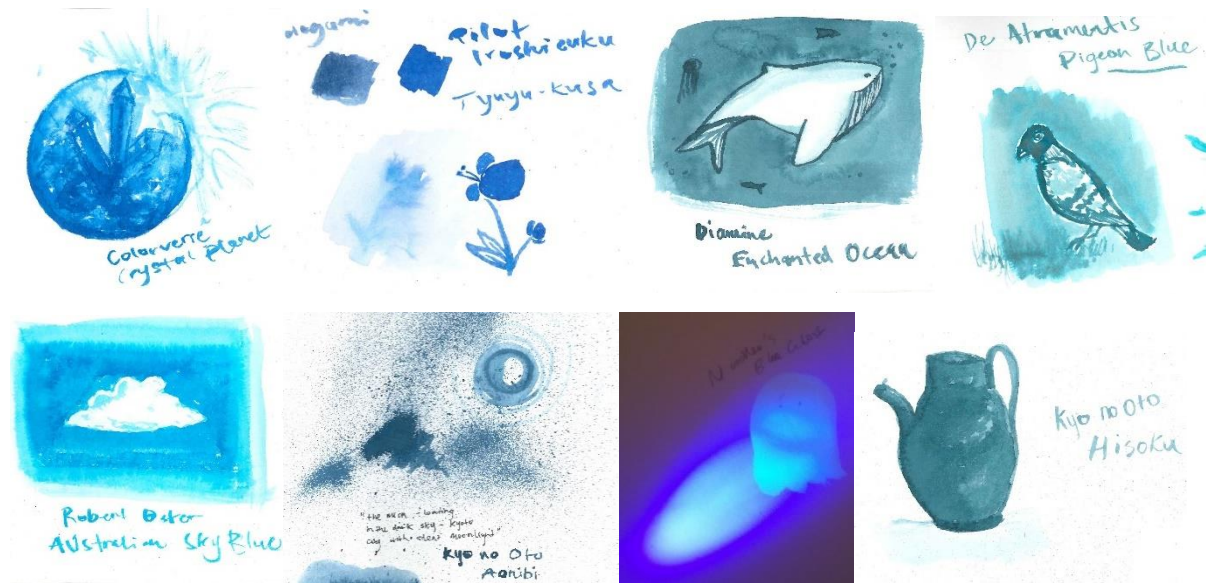
Sun Exposure (original My Hair is Dayflower)

Figure 30

Sun Exposure Study 01

A digital painting was separated into layers and printed onto transparency films, to overlay and selectively fade a piece of Dayflower Paper using sunlight (see Figure 30). Later, I realised the process could be a variation on "anthotypes". This art study was abandoned on the discovery that neither saturated or lightly painted dayflower pigment on paper, would fade within a realistic timeframe, and was hampered by condensation. It may be possible to complete this study with a humidity-controlled environment and UV light. My studio was incapable of these scientific requirements. The digital painting underwent a few variations and was later modified (see Figure 31). The discarded transparency sheets were eventually reused

in other exhibition ARTefacts. This study holds importance as an example of the characteristics of *Commelinin.* It also showcases how failed artworks can be reused (Figure 31).

Figure 31

My Hair is Dayflower (Original) Variations
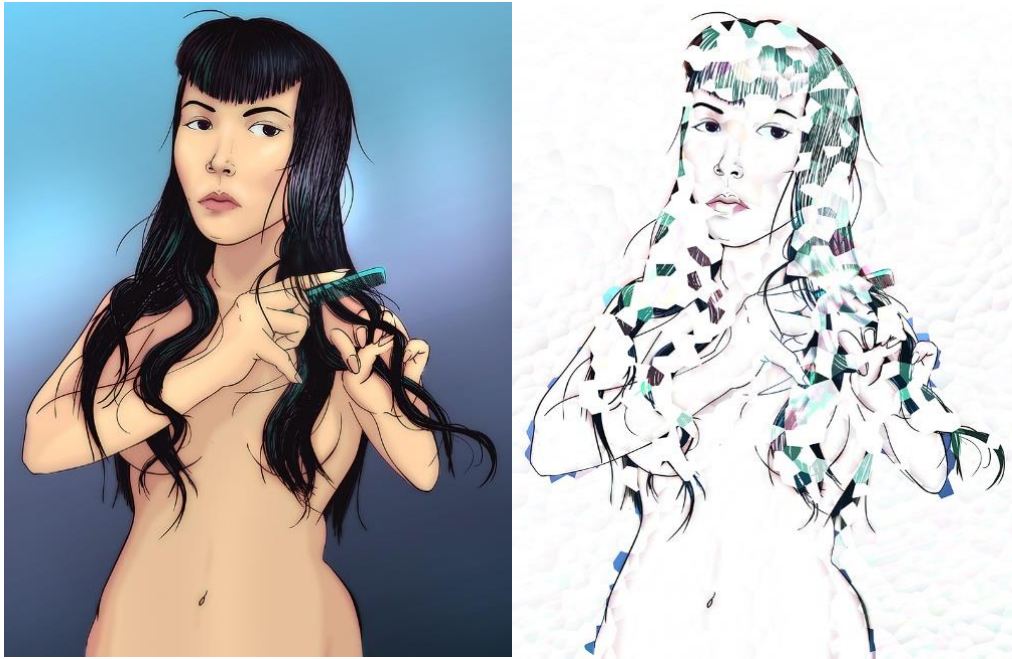
Fade

Figure 32

Fade Study
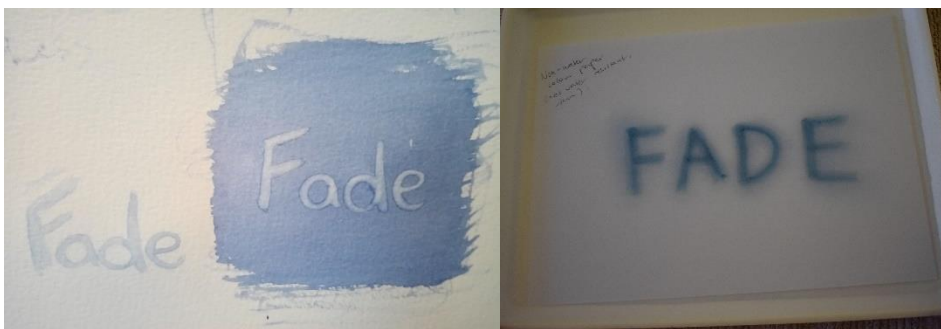
Figure 32 shows dayflower pigment painted on a sheet of paper and then submerged into a water bath to wash the pigment away while being recorded. Unexpectedly, residue pigment or paper debris made the water appear tan/brown instead of clear. Repeated tests incurred the same results, including when soaking Dayflower Paper by itself. Although no longer blue, the initially white paper came out a grey white, and if left in the water, became yellow brown.

Dayflower pigment in water was also found to brown in concentrated amounts although the blue had faded. I entertained the idea of trying synthetic dayflower colour ink, which ran colour, but did not fade (see Figure 33), however it was disregarded. A second version using natural dayflower was also developed where pigment was painted onto a print so only the pigment would wash off, however it was also never finalised (see Figure 34).The water bath idea was eventually replaced with rain and spritzed water (see *Dayflower: Water: Water Press, Illustration and Aobanigami (Final)* p.152; and *Scurvy Weed in the Rain* p.177). These studies confirm previous literature reviews on the ethereal characteristics of dayflower pigment in water. It also revealed new knowledge on what occurs to concentrated amounts of dayflower pigment in low levels of water.

Figure 33

Faded Synthetic Ink

Figure 34

Blue on White Print

My Hair is Dayflower (Printed) on Dayflower Paper and Water Pressed (final)

Originally the images seen in *Figure 35* were intended as the final version of ARTefact *My Hair is Dayflower on Dayflower Paper against the Sun (Studies)* (see page 161). However, the images did not evolve as predicted. After consideration, the smaller scale studies were chosen for exhibition, instead of the larger pieces. The failed attempts innovated a different ARTefact (see *My Hair is Dayflower printed on Dayflower Paper, Drenched with Water, with Drips and Drops (triptych)* page 168). This study revealed that dayflower pigment can transfer from Dayflower Paper using pressing methods and water. When pigment is removed from Dayflower Paper, it gains translucence.

Figure 35

Water Press Tests

After-Image

I had considered developing an artefact that utilised after-image methods. Although tests were completed (see Figure 36), no complete artefact was formed. The original idea was to shade or colour an illustration to stimulate the after-image effect. A digital image presented on screen would be the primary colour to focus eyes on, before viewers redirected their gaze to a physical canvas, to reveal the other half of an image. This process in effect would complete a full image, however, the test proved to be unsuccessful (see also Appendix M). For an after-effect Shinkyuu Artwork to exist, a larger research scope than this doctorate, is required. There is room however for future research in after-effect methods.

Figure 36

After Image Study

Nano-structure

Some blue colours are not pigment, and are visible due to nanocrystal structures, projecting blue light. I had considered recreating a larger-than-life nano-structure sculpture of a butterfly wing. However, the idea was beyond my depth and the scope of the research. If I were to reconsider, it would likely require precise modelling and 3D printing, at an incredibly large scale. I deliberated using existing blue objects with nano-structures (see Appendix N section *2019 Journal* entry date *26/08/2019, p.110*), however the idea never fully developed. This doctoral study is an area for further and future research. Other readymade items were integrated into other ARTefacts (see *Eggs Incubating in Nest*, p. 150).

Frame by Frame Paintings

Another idea that did not eventuate, not even into studies, was animation using a water-sensitive pigment. This concept was based on traditional 2D animation. Each frame of animation would be painted on a single canvas and erased each time a new frame was produced in its sequence, until the images are erased for the last time. The used yet seemingly empty canvas would then be overlaid with a video loop playing the animation, either as a projection or through AR. The study was eventually abandoned due to time restraints, the commelinin pigment had already featured in other ARTefacts, and for a lack of decision on the imagery to animate.

Other Pigments and Dyes

There were blue pigments and dyes that were excluded intentionally from use either because they were uninspiring, inaccessible, or inapplicable. These included Prussian Blue in powder form, Anil (an indigo from *Indigofera suffruticosa*, linked to Maya Blue), Woad, Backbarrow Blue, Ganryo medium (indigo-plant-blue mixed with shellfish and gelatine, often used for Ukiyo-e), Indigo in ink form, among other synthetic blue inks (see *Ink (Study)*, p. 126), and Ultramarine (synthetic). Synthetic pigments were excluded if it was difficult to ascertain where they originated from. Synthetics often arise from the same chemical formula making them uninspiring among the other options available. Natural pigments yielded more interest, revealing an attraction to rare blue pigments, and the name of pigments. However, if the scope of the research were larger, I would most certainly have explored the aforementioned pigments. The synthetics on the other hand, generally had nonspecific names, making them less memorable. This concern with names is discussed later in *The Naming of a Work* (see p. 197) and *The Names of Blues* (p. 210).

ARTefacts

The ARTefacts that will be displayed at exhibition are detailed below. Please see pages 41, 114 and 119 for the intentions and limitations of the exhibition. The ARTefacts display a visual definition of Shinkyuu Art. Each artwork has information in this exegesis explaining what it is, what media and blues were engaged in its creation, and an analysis of how it fits within the *Shinkyuu Art Model* displayed earlier (see Figure 3, p. 26). Each ARTefact is represented by an adapted *Shinkyuu Art Model* presented in this exegesis. This model determines the ratio of media used in an artwork, and if the artwork classifies as Shinkyuu Art according to this model. Fundamentally, each of the Shinkyuu ARTefacts are variable on the *Shinkyuu Art Model*. Artworks can be more analogue or digital depending on their process. Although I aimed to create work that balanced in the centre of the *Shinkyuu Art Model* scale, it was problematic when dealing with the creative process of art. It is not for lack of trying, that some artworks hold different positions on the *Shinkyuu Art Model*.

Each of the ARTefacts should be viewed in person where possible alongside the exegesis. The images displayed in the exegesis are a placeholder for the images themselves at exhibition. Where a reminder of the ARTefacts, or reference point is needed, the images here are satisfactory. Some ARTefacts have video or animated footage which is not embedded in this

document due to physical limitations, but have, however, been included as links. If there is a link available, this exegesis brings attention to it with instructions. Links should be viewed online with an internet browser, preferably on a large screen. These links are supplementary viewing for the real showings that will occur at exhibition on individual screens. The same applies for works that utilise AR images. The AR imagery is accessible through scanning correlating images in the mobile app *Artivive.* Both the exhibited artefacts and images presented in this exegesis are scannable. *The Artivive* app should be pre-downloaded onto any hand-held mobile device for use with this chapter. When there is an AR image available, this document provides instructions on where to find it.

Each of these ARTefacts contributes new knowledge towards understanding Shinkyuu Art. The theme of blue is also noticeable in many of these works in different ways, highlighting how it has been used within Shinkyuu Art. My analysis of each work is complemented by the information obtained from the journals. These critical reflections illuminate new knowledge on both blue and Shinkyuu Art that can be added to existing literature. It also helps establish the definition of Shinkyuu Art in written form and places it within mixed media arts practice. The original contributions to knowledge are multimodal and wide-ranging.

Names (Study)

Names began as a digital photograph printed onto paper, and then collaged with painted chip cards based on the name of the colour (see Figure 37 and Table 3). Colours were used only if they referenced the sky or sea in name. These colours were not always monochromatic or complimentary to the photograph, despite the surplus of chip cards at hand. The process was labour intensive. Although intentions were made to create a final piece, through considering research question 1 (see page 27), I began to reconsider whether it was Shinkyuu Art or if it was more Tradigital due to the process of print methods (see *Successful Shinkyuu Art?,* p. 124). Against *Figure 3,* I consider *Names* to be more on the analogue side of Shinkyuu Art (see Figure 38), which reveals weakness in the Shinkyuu Art method. However, it must be noted that when this image was created, the intention was to experiment with paint chip cards and print. I had not purposefully planned out a Shinkyuu Artwork for this idea as this work was still in its initial stage. No Shinkyuu Art idea developed from the process.

Figure 37

Names (Study)
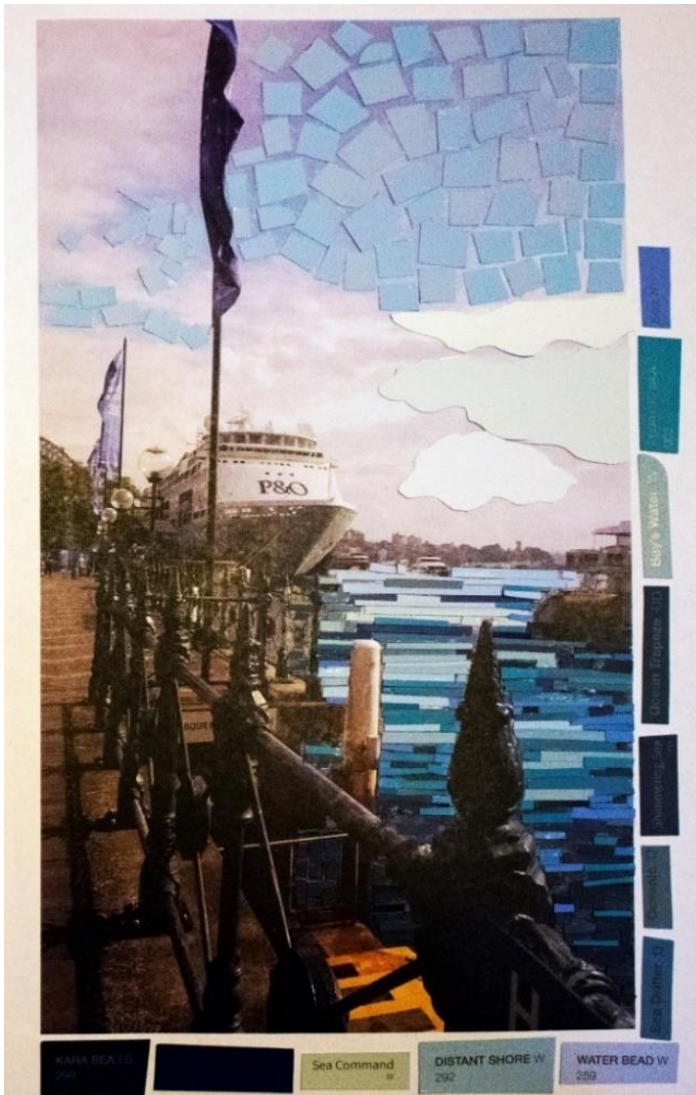
Note. Dimensions approximately 180 x 280mm; including frame 325 x 425mm.

Table 3

Names – Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Printing	Photograph	Object – Paint Chip Cards
Collage		

Figure 38

Names - Shinkyuu Art Model
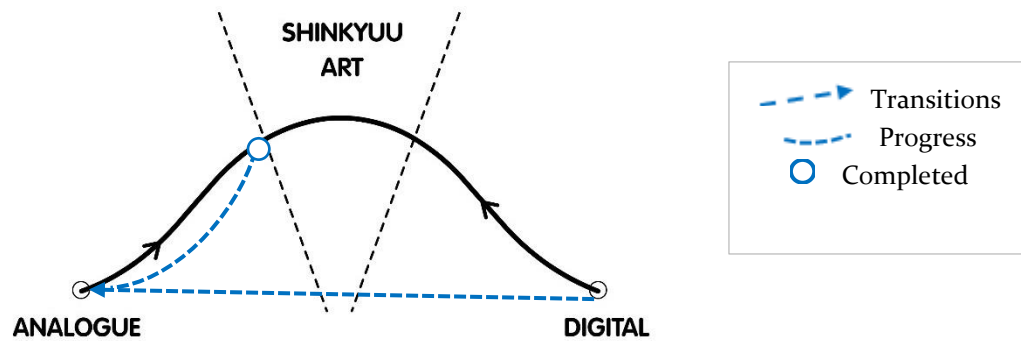
Bluetiful (Study)

Figure 39

Bluetiful

Note 1. Photo of an example installation involving video, tablet device, animation frames, and wax pastels.

Note 2. Dimensions approximately 215 x 300mm; installation approximately 510 x 420mm.

Bluetiful (see Figure 39) is an animation that will be displayed at the exhibition, with the original physical drawings next to the tablet screen on which it is displayed (to view the work

outside of exhibition, see Appendix O). A transparent film sheet will also be placed over the screen with wax pastel markings over it, with animation frames and wax pastels scattered around; however as it is an installation, this may vary. *Bluetiful* was named after a YInMn wax pastel, before realising it was synthetic and not the authentic pigment as originally thought. This study has fundamentals from animated work I completed prior to this doctorate (see Figure 1), that formulated my initial preconceptions of Shinkyuu Art aesthetics, and helped establish the standard for a well-balanced *Shinkyuu Art Model* (see Table 4 and Figure 40). It provides a benchmark for other Shinkyuu Artworks to aim towards. The wax pastel over digitally projected images provide a distinguishable textural difference. It suitably matches the Shinkyuu Art definition of this doctorate. A final was however abandoned, as the wax pastel was not authentic YInMn, and its actual chemical formula could not be traced. The idea of melting wax pastel to create a canvas of colour had also been considered early on and was also abandoned. This event revealed name authenticity as important to me as an artist-researcher, and to the doctorate, for uncovering knowledge. The melting wax pastel aesthetic was eventually reused in ARTefact *My Hair is Dayflower printed on Dayflower Paper, Drenched with Water, with Drips and Drops (triptych)* (p. 168).

Table 4

Bluetiful - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Drawing	Editing	Mixed Pigment (synthetic)
Printing	Monitor Screen	The name
	Scanned Images	Screen Blue Light

Figure 40

Bluetiful - Shinkyuu Art Model
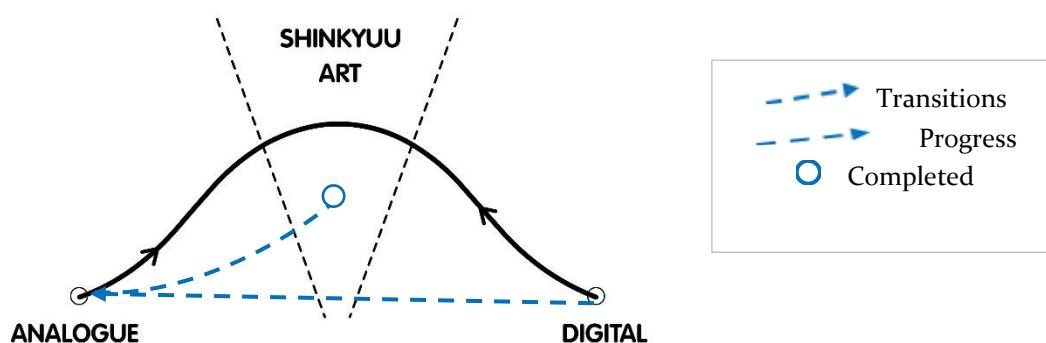
Indigo and My Hair is Dayflower (Study)

Figure 41

Indigo and My Hair is Dayflower (Study)

Note. Dimensions approximately 220 x 290mm; including frame 305 x 400mm.

Shown in *Figure 41* are scanned images of the ARTefact, pre-exhibition, and installation without lighting. It is presented with the left side as the front view. It is framed in glass so a light source can backlight the image to highlight the character peeking behind the indigo. Outside of exhibition, ambient light changes how the character is seen, as well as the tone and transparency of the blue. Against the *Shinkyuu Art Model*, I consider this work to be analogue ranging and not Shinkyuu Art balanced, despite the initial digital line art (see Table 5 and Figure 42), and could potentially be defined as Tradigital Art. Tradigital works, are known to involve computer prints, revealing a similarity between Tradigital and Shinkyuu Artworks. The intention of this study was to experiment with print and indigo dying on different textural papers—not necessarily to create Shinkyuu Art during the initial study stages. Consequently, this artwork could essentially be classified as more Tradigital than Shinkyuu Art. *Figure 42*

certainly reveals a *Shinkyuu Art Model* that remains more towards the analogue side of media, than situated centrally within the Shinkyuu Art range.

Table 5

Indigo and My Hair is Dayflower - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	Digital/Technologic	Type
Dye	Drawing	Natural Dye (indigo)
Printing		
	Projected Light	

Figure 42

Indigo and My Hair is Dayflower - Shinkyuu Art Model
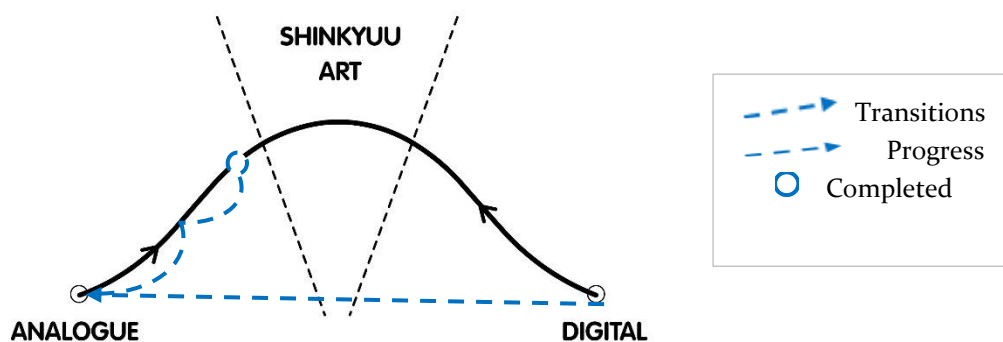
Indigo and My Hair is Dayflower – Digital, AKA "Discarded" (Study)

Discarded (see Figure 43) is a combination of various photographs and scans of physical objects and textures, either found or created through other indigo dye studies. Many of the textures were formulated through general use working with the dye, creating interesting patterns on containers and tools. The work also includes scans of the previous ARTefact (Figure 41), used differently. There are two sets of lines displayed in *Figure 44*, due to varied starting points, and how the media were brought together. Although numerous analogue elements were used, the artwork has a majority digital presentation. As seen in *Table 6*, there is an even ratio between analogue and digital elements. Each element would be converted to either digital or analogue by scan/photograph or print, respectively. As they were combined in

a digital program, and will be exhibited on a monitor screen, *Discarded* veers more to the digital side of *Figure 44*. Two different coloured arrows are presented, because two different elements and methods were used, highlighting Shinkyuu Art can be more digitally influenced despite intentions to create balance between different media.

Figure 43

Discarded Study

Note. Dimensions 2409 x 3435 pixels; equivalent to 203 x 290mm if printed.

Table 6

Discarded Study- Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Dye	Painting	Natural Dye (indigo)
Found and Created Objects	Monitor Screen	Screen Blue
Print on Transparency Film	Photographs and Scans	

Figure 44

Discarded Study - Shinkyuu Art Model
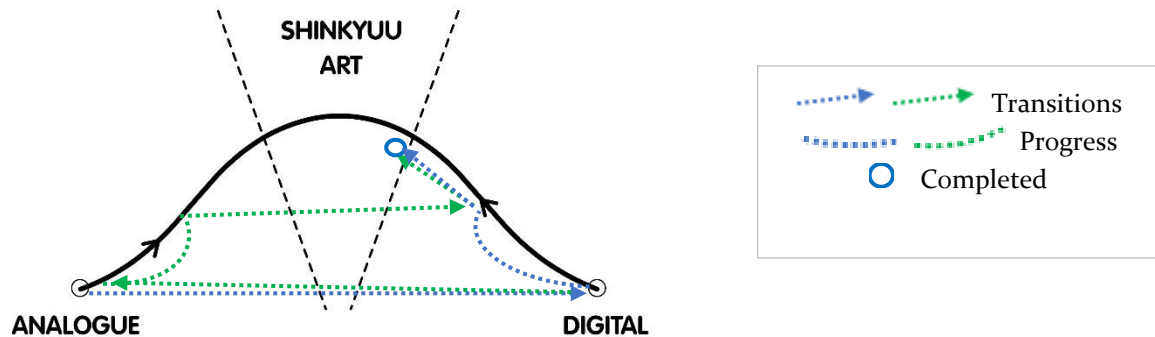
I had initially considered furthering the work by projecting the image or printing it for display, however, in all cases the work would still sit onto one side of the *Shinkyuu Art Model*. I had also measured using half of the image as a physical aspect, and the other half as a projected image, but that was restricted by certain digital facets that were unconvertable into analogue. Like its namesake, a final was eventually discarded, demonstrating there are limitations within certain Shinkyuu Art processes.

Indigo Waves (Study) #1-3

Figure 45

Indigo Waves Study #1-3

Note. Dimensions approximately 130 x 170mm each. Framed together it is approximately 530 x 250mm.

Table 7

Indigo Waves Study #1-3 - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	Digital/Technologic	Type
Painting (dye)	None	Natural Dye (indigo)

Figure 46

Indigo Waves Study #1-3 - Shinkyuu Art Model
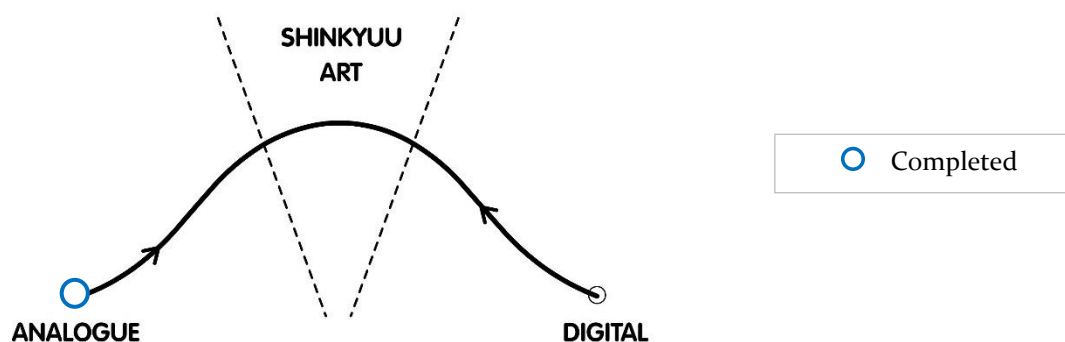
Figure 45 experimented with indigo dye as paint. As seen in *Table 7* and *Figure 46*, the focus was not on creating Shinkyuu Art, but to first experiment and then see where ideas progress. *Indigo Waves Study #1-3* show some of the best attempts. Inspired by Ukiyo-e, the dye was applied onto paper in the movement style of waves, with variation in how firm the brush was pressed to create varying thickness. The colourant was not converted into a lake pigment before use. No additional water was added for varying opacity in the dye. Other than what was already in the vat, the different shades of blue were caused by the quantity and speed of the dye brushed on the surface, revealing new knowledge on the characteristics of indigo dye.

Although this work is not Shinkyuu Art it is included to showcase something analogue. The study also helped to formulate other finals. Each wave was painted on varying cotton finish surfaces with no major difference between how the dye interacted. Although separate, the three studies were bridged together through framing to appear as one wave flowing across to the next. Fundamentally, this doctoral study showed indigo dye could be used as a paint, with limitations.

Indigo Waves (Study #4)

Figure 47

Indigo Waves Study #4
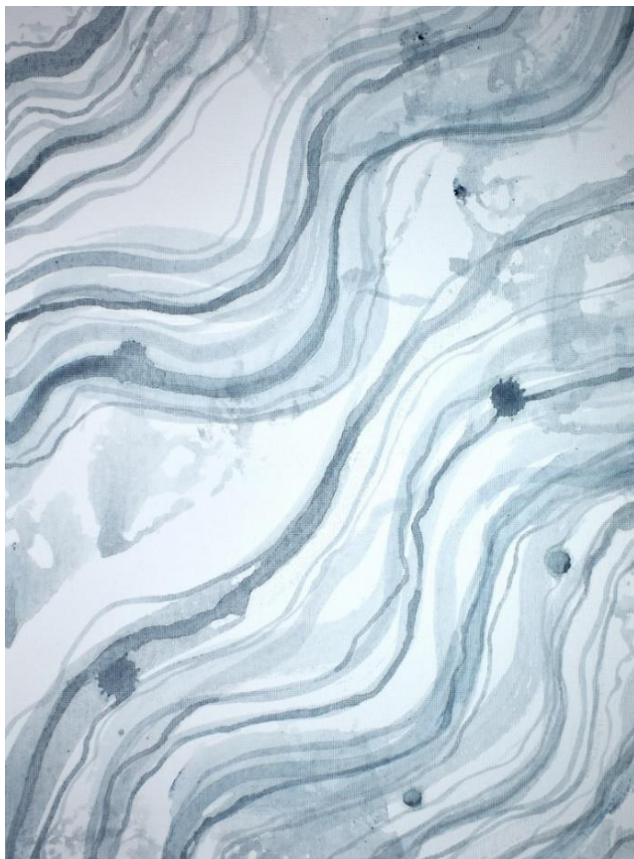
Note. Dimensions approximately 240 x 440mm; including frame 350 x 450mm.

Like the previous study, *Figure 47* was conducted without the intention of creating Shinkyuu Art. The dye here was older than the previous studies and had better adhesion despite being greyer in colour. Cloths were made into tools to apply the paint to larger areas, resulting in different brush textures. The translucence of the paint allowed lines to overlap and create darker impressions throughout the canvas. Spots of accidentally dropped dye, became purposeful mistakes, scattered around the canvas (see also Appendix B *2019 Journal* section entry date *Between 14/01/19 to 16/01/19 [...] p.16*). Both *Table 8* and *Figure 48* show the work is very clearly analogue in creation. *Indigo Waves Study #4* is included for exhibition, to showcase indigo blue in a different shade. It also helped formulate other indigo finals. The characteristics of indigo dye displayed here provides new knowledge on indigo as a paint, adding to the existing literature. It is also important to note my symbolic association of waves with the colour blue is partly due to Ukiyo-e paintings. Personal colour symbolisms influenced the artwork. Although the dye was greyer in tone, the waves still prevailed from the previous

study. The waves in this study seem more like stormy weather days, and was a completely unconscious, unintentional colour association on my part. However, it makes sense for stormy waves to have bubbled from my subconscious.

Table 8

Indigo Waves Study #4 - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Painting (dye)	None	Natural Dye (indigo)

Figure 48

Indigo Waves Study #4 - Shinkyuu Art Model
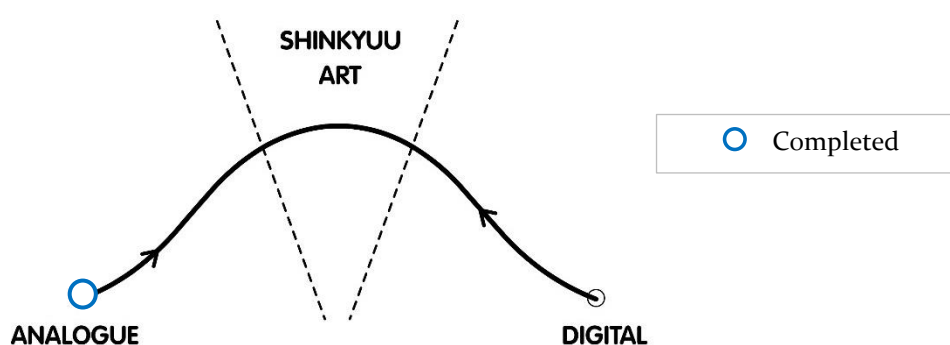
Indigo Dip triptych (Study)

Figure 49 has a double-sided presentation. Both sides are viewable with neither side being a preferential front or back. After the previous studies showcased how pale the indigo colour would be when brushed upon canvas, I decided to dye paper (also shown in *Indigo and My Hair is Dayflower (Study)*, p. 137), as intended by regular dying with cloths. Partially dipping and rotating the papers in different sections of the vat created interesting patterns and allowed the colour to fully emerge. Again, different types of paper presses were used with unnoticeable differences. They are displayed together as one triptych. Like the previous study, there was no intention to create Shinkyuu Art since it was a learning exercise. *Table 9* and *Figure 50* showcase a majority analogue outcome. This study, however, helped form the idea for a final ARTefact (see next section). The paper dipped into the dye vat produced an image on both the front and back sides of the pages. Although I had initially marked what was front

and back on all pages, the dye covered these markings. Now, the work is intentionally displayed without preferential treatment to either side of the artwork.

Figure 49

Indigo Dip (Study)
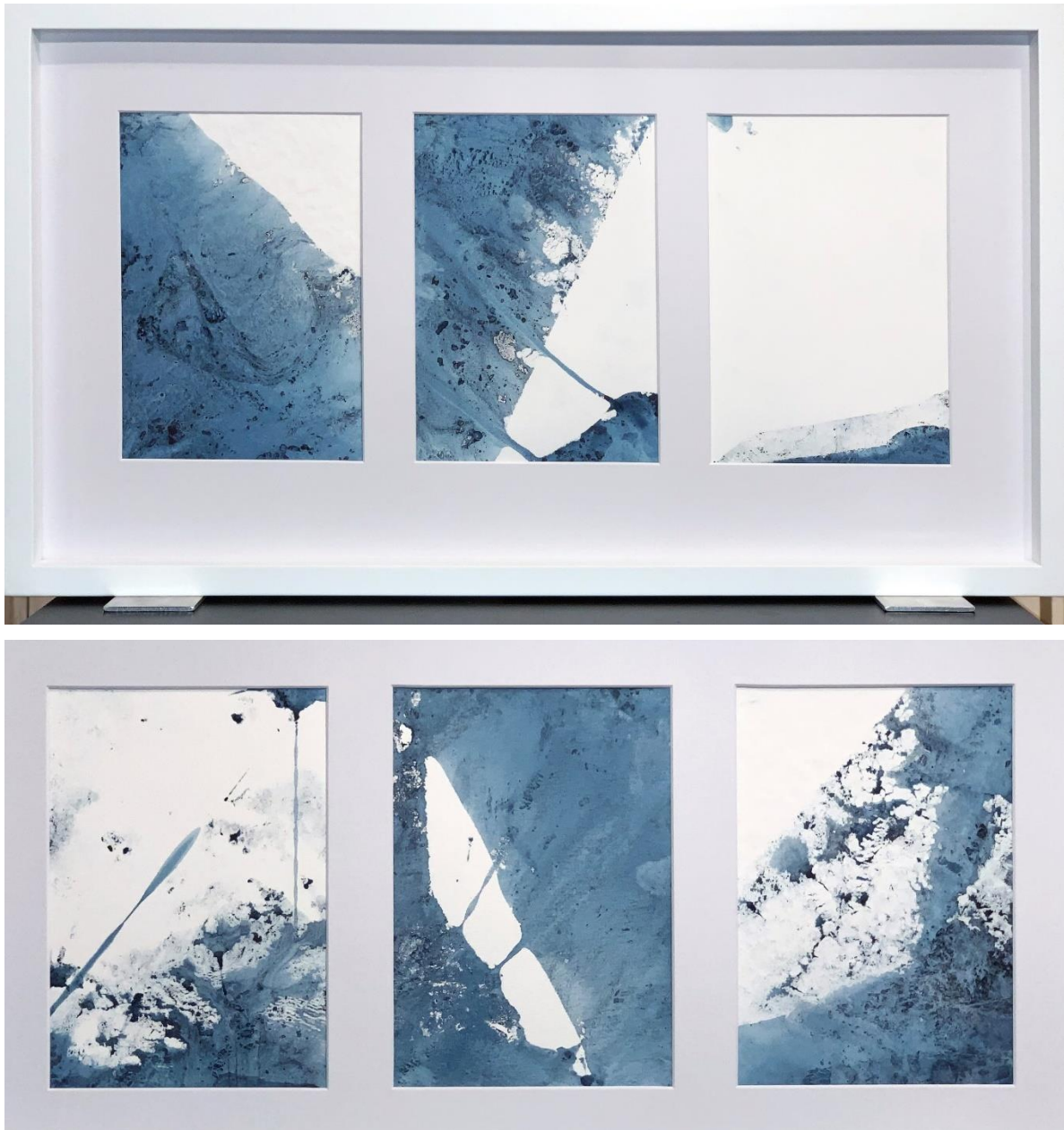
Note. Dimensions approximately 140 x 210mm each. Framed together it is approximately 610 x 340mm.

The layout of the image was informed by how the images looked side-by-side, with my decisions based on shapes, texture, and flow of the dye, against the contrasting whites for both sides of the three images (see also *Colours Not Blue*, p. 203). The floating debris on the dye vat

transferred across onto the paper. As this dye was not rinsed, like it would be on regular cloths, this artwork was able to retain these textural elements. These textures create visual interest and contribute to additional knowledge on indigo pigment. This ARTefact retains a sense of movement—a capture of how the colourant ran across the paper whilst drying, and a monochromatic display of contrasting dark and light.

Table 9

Indigo Dip (Study) - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Painting (dye)	None	Natural Dye (indigo)

Figure 50

Indigo Dip (Study) - Shinkyuu Art Model
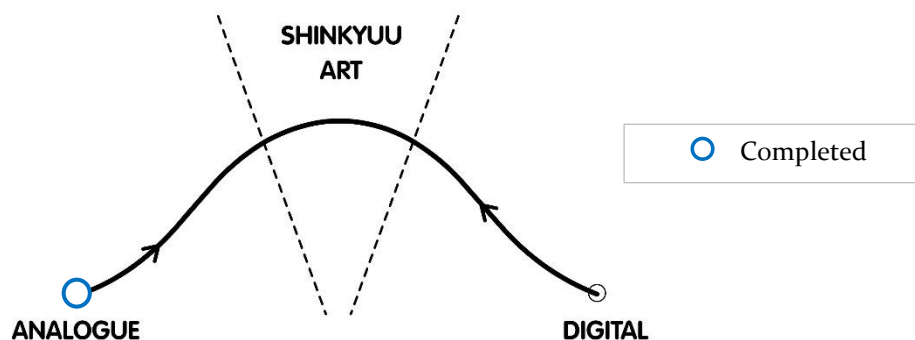
Indigo Dip triptych (Final)

Indigo Dip Final is presented double-sided (see Figure 51), with projected images (Figure 52) to be overlaid on both sides. The layout was chosen in the same way as the previous study. Each image in both the aforementioned figures correspond from top left to bottom right. *Figure 51* shows scans of both sides of paper immersed in dye, and *Figure 52* shows the same images processed through a digital data-bending method. The data-bending introduced colours that were not blue (see page 203). At installation, the glitch images in *Figure 52* will be projected to overlap the images in *Figure 51*. *Indigo Dip Final* is fairly balanced between analogue and digital elements in both its methods and presentation—one inherently analogue whilst the other digital (see Table 10). *Table 10* displays *Projector* as both analogue and digital.

Figure 51

Indigo Dip Final (analogue)
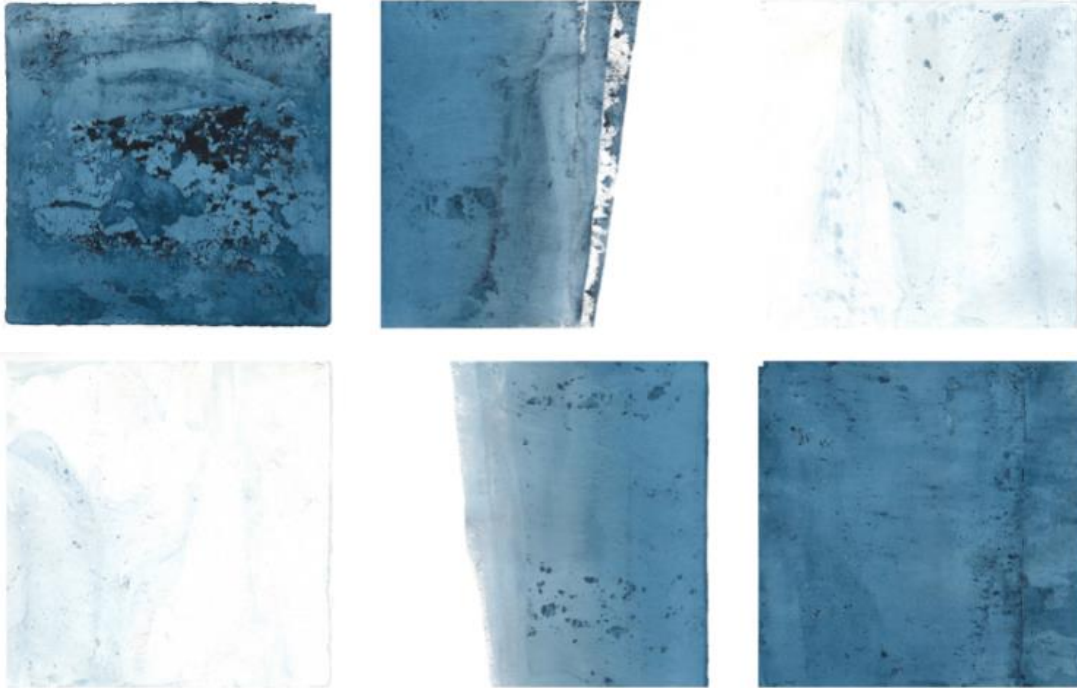
Figure 52

Indigo Dip Final (digital)
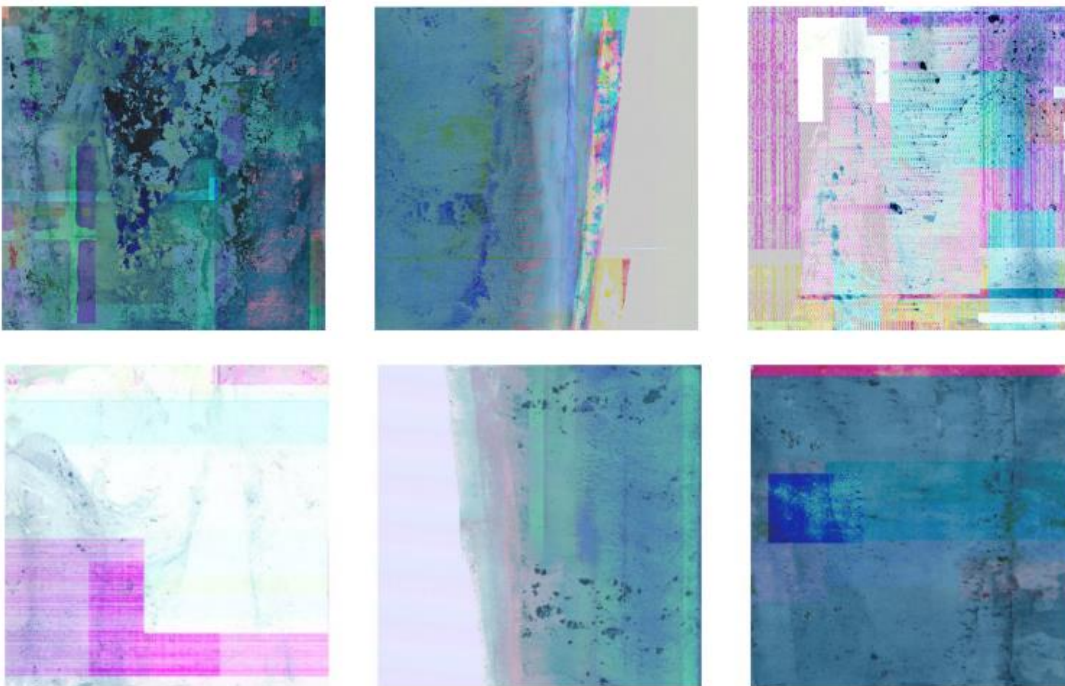
Note. Both *Figure 51* and *Figure 52* dimensions approximately 300 x 300mm each. Framed together it is approximately 1160 x 500mm. With projectors the installation space spans at least 1200 x 2041mm.

Table 10

Indigo Dip Final - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Dye on Paper	Glitch Art	Natural Dye (indigo)
Physical Presentation	Scanned Images	Projected Blue Light
	Projector	

Figure 53

Indigo Dip Final - Shinkyuu Art Model
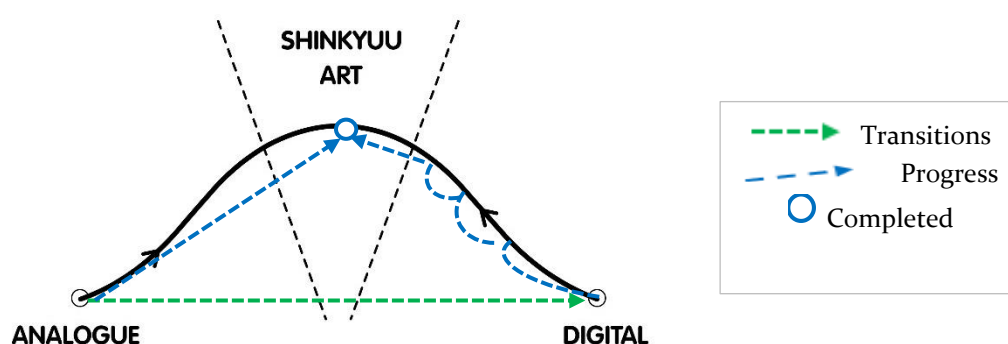
The projection of images into the real world—where it can also overlap real world objects—can be seen as physical although displayed digitally. *Figure 53* shows two separate blue lines emerging from a single starting point. The images were both digitally scanned and physically retained for display. On the digital side, the images were processed through data-bending, photo-editing, and then projected. The two blue lines meet again in the middle between *analogue* and *digital* within a balanced section on the *Shinkyuu Art Model*.

The presentation for this piece requires two sets of projectors on both sides of the triptych. Although potentially finicky and needing particular installation, it is a requirement of this Shinkyuu Artwork. To reduce light glare, the three images were intentionally framed without glass. The works are two, standalone pieces, that are symbiotic when presented together. It is an example of Shinkyuu Art as separate and yet dependent entities, and helps shape the definition of Shinkyuu Art. This ARTefact pushes boundaries in fusion art installation formats. The monochromatic blue is in addition, a suffusion of other colours, introduced by the digital

glitch process. The intensity, brightness, and layering of colour, is "post-natural and proto-technical" (Irons, 2015, 4:46-4:01).

Eggs in Nest (Study)

Figure 54

Eggs in Nest (study)

Note. Dimensions approximately 180 x 210 x 100mm.

Table 11

Eggs in Nest (Study) - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Painting	None, except for documenting photographs that may exist.	Chiral - Colour Changing/Heat receptive Liquid
Object / Real Life		
Audience Interaction		

Eggs in Nest (study) (see Figure 54) is another study that began with analogue medium. Pictured are two plastic eggs in a handmade nest projecting a blue sheen. The second image shows an egg changing from green to blue through hand warmth. This doctoral study differs

slightly from some previous work because more steps were involved in its creation. However, the methods involved were only analogue in nature, and no digital techniques were introduced (see Table 11 and Figure 55). *Figure 55* specifically shows two blue lines starting in *analogue*. These lines represent both the eggs and nest which were created separately before coming together. Chiral liquid—colour changing pigment that reacts to heat—was tested on paper and eventually on the eggs. A matte black was used to contrast the rainbow effects of the paint. At a certain temperature, the paint remains at a medium to dark blue colour. As shown in *Figure 54*, a medium blue is possible to achieve with warm hands. This ARTefact demonstrates Shinkyuu Art involving physical connection, although granted, the level of interaction is left in the hands of spectators.

The final version of *Eggs in Nest* (see next section, *Eggs Incubating in Nest (Final)*) continues from where this study concluded. Both final and study are exhibited, with the study installed so that attendees can physically handle these non-fragile fake eggs and interact with the paint (where in the final work, they cannot). *Eggs in Nest* and *Eggs Incubating in Nest* engages with the idea of physical touch. The sense of touch remains within a purely analogue realm. Digital domains are yet unable to produce the same degree of physicality.

Figure 55

Eggs in Nest (Study) - Shinkyuu Art Model
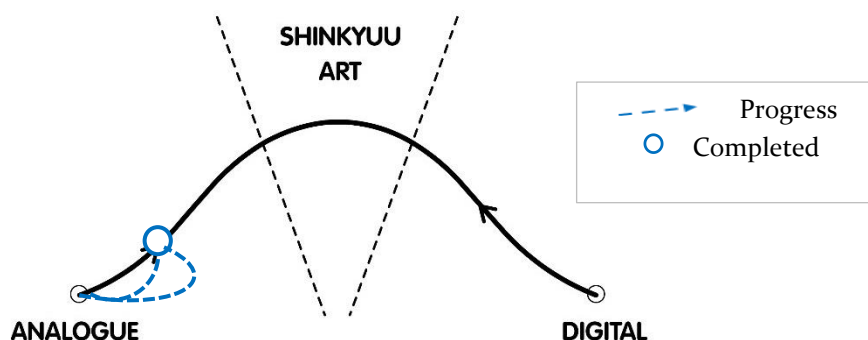
Eggs Incubating in Nest (Final)

In *Figure 56*, the final work uses real eggs instead of plastic ones. Fragile, this installation is display only. Found objects that were shiny, blue, and feathery, were added to the nest. The majority of these objects were found at one location over thirty minutes, which was concerning regarding the environment. The heat lamp involved with the previous study, was implemented here instead to give the impression of incubating eggs, whilst it in fact sustains the vivid blue colour on the eggs. One egg has "hatched" showing shattered remains (or

rather, it broke—see also Appendix B *2019 Journal* section entry date *Between 19/12/2019 to 24/12/2019, p.312*). It is worth noting the ARTefact conveys a symbolic association of blue eggs and bower birds who collect blue and reflective objects. It additionally calls to attention the human waste that is now found in their natural environments (Siossian, 2018), and reflects upon this.

Figure 56

Eggs Incubating in Nest

Note. Dimensions approximately 290 x 120mm; including lamp and lamp holder it is approximately 300 x 640mm.

The blue colour is fleeting—this specific arrangement of objects, and the colour of the blue, is possible only due to a photograph recording this moment and the heat of the lamp. More objects may be included over time, and more eggs may break. This ARTefact illustrates the viable bridge between analogue and digital due to photography. Likewise, Sleinis (2003) observed that "[representations] preserve beauties or sources of rewarding experiences when the originals have left this world" (p.27). The photograph acts as an imprint that remains after the real-world object is gone. For this reason, *Eggs Incubating in Nest* is included for exhibition, despite not qualifying as Shinkyuu Art (see Table 12). The shifting colour used on

the eggs is both fleeting and intense. This vivid colour contrasts the commonality of the found objects—monochrome feathers, disintegrating plastic, trampled foil, and a single lost earring.

Despite formulating ways to veer *Eggs Incubating in Nest* towards a more Shinkyuu Art balance (see Figure 57), nothing was found to be suitable. Similar to its study, the model shows two blues lines starting in analogue—the eggs and nest. A third straight arrow represents the found objects arranged within the nest, and the fourth is for the incubating lamp and stand. A final red arrow indicates the possible bridge towards digital when photographs are taken, finishing at a secondary red dot. It should be clearly noted that this ARTefact is also analogue in presentation—it will not be shown with photographs alongside the display.

Table 12

Eggs Incubating in Nest - Categories of Medium and Blue

| Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Painting	None, except for documenting photographs that may exist.	Chiral - Colour Changing/Heat receptive Liquid
Object / Real Life		Found objects
Projected Heat		

Figure 57

Eggs Incubating in Nest - Shinkyuu Art Model
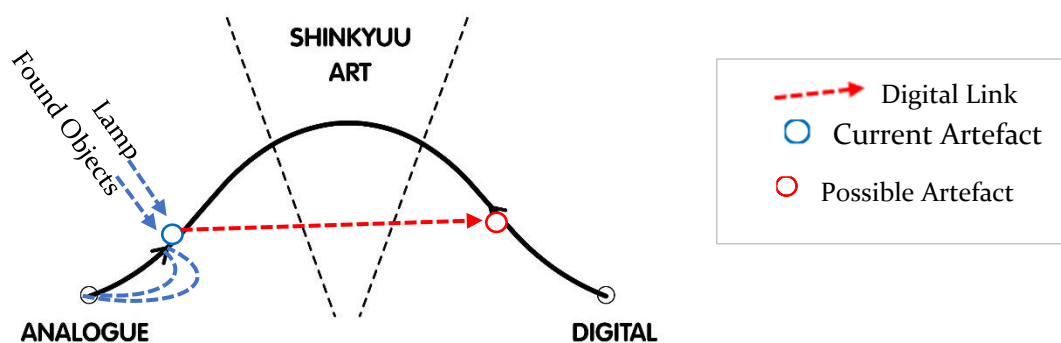
Dayflower: Water: Water Press, Illustration and Aobanigami (Final)

Figure 58

Water Press

Note. Dimensions approximately 300 x 410mm.

Figure 59

Water Illustration
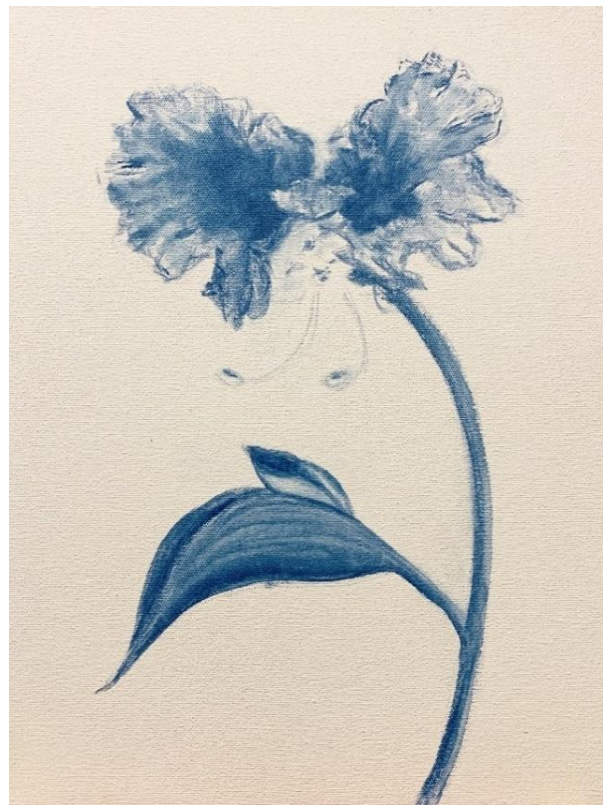
Note. Dimensions approximately 300 x 410mm.

Figure 60

Water Press Aobanigami Both Sides (example installation)

Note. Dimensions approximately 270 x 390mm; including frame 390 x 520mm.

A large sheet of Dayflower Paper/aobanigami was carefully opened and flattened to be deployed in this doctoral study. The process to create the painting utilises stamping techniques (see also *The Naming of a Work,* p. 197; and Appendix P). This "Water Press" (see Figure 58) was created by applying water and pressure on paper to exude pigment onto canvas. Excess pigment on the brush was transferred to a separate canvas, to mirror and re-illustrate the same areas (see Figure 59), before being washed into a jar of water. The illustration is of a dayflower in bloom. Once the illustration was finished the aobanigami was peeled away, leaving stamped areas of pigment on the canvas. Removing pigment from the aobanigami also exposed the backing kozo paper, which allowed light to penetrate and create a translucent impression (see Figure 60). The aobanigami is consequentially viewable double-sided, however for exhibition, will be displayed facing the same way as *Figure 58* and *Figure 59*. The two images in *Figure 60, s*how variance in back-lighting, and the image reversed.

Like other ARTefacts this study began with analogue processes. The jar of water, that was used to wash away the pigment in this study, was documented as the colour faded. It was recorded

as turning green to tan, instead of disappearing completely, as the pigment is known to do. The documented colours are digitally overlaid onto both *Figure 58* and *Figure 59*. Use app *Artivive* to view the AR digital colour overlays for both images. By introducing AR, the *Dayflower: Water* triptych transposes into both traditional and digital realm (see Table 13). A mobile device screen is required for the AR video which reveals itself when scanning the physical paintings. The AR video documents some of the water colours (although imperfect and approximate, see also *Analogue to Digital Blue (Limitations)*, p. 201) to keep forever with the same paintings, despite the pigment no longer existing.

Table 13

Dayflower Water - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Painting / Printing	Digital Colour Sampling (AR)	Natural Pigment (Commelina communis, L)
Object	Mobile Device Screen	Object
Natural Light	Photographs	Screen
Audience Interaction		

Figure 61

Dayflower Water - Shinkyuu Art Model
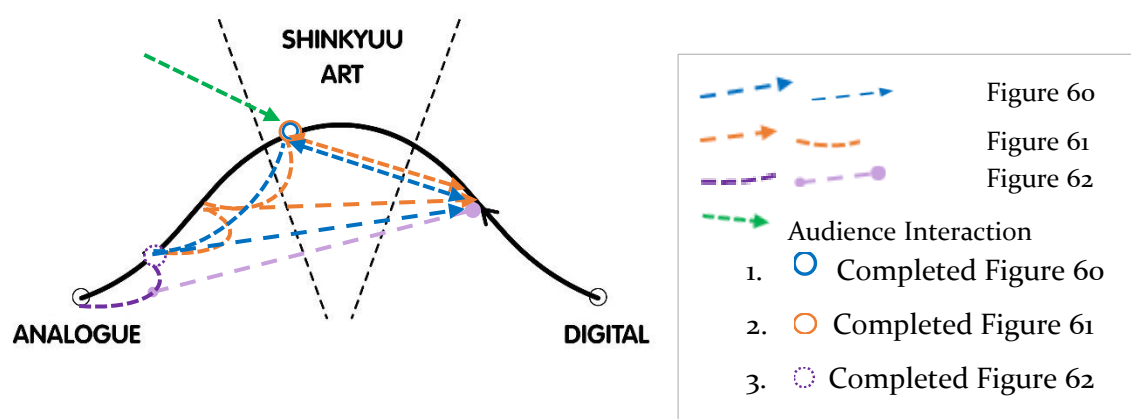
Figure 61 illustrates for all three images: the aobanigami (Figure 60) was used to create *Figure 58* (as a result of the technique) with excess pigment transferred to *Figure 59*. Both *Figure 58* and *Figure 59* were photographed. Digital colour swatches from *Figure 60* are used in the AR

video, and *Figure 61* conveys this, by crossing lines and paths within the middle of the figure. Audience interaction is also required for viewing the AR. Although both digital and analogue elements have been used, this work leans towards analogue on the *Shinkyuu Art Model*, whilst remaining centrally balanced. The pigment knowledge revealed from this study is two-fold: aobanigami is durable enough to be saturated in water as a Water Press, and so highly pigmented that there are still blue areas on the paper, despite initially being predicted to turn white. This doctoral study is the first known instance of aobanigami engaged using the innovative art methods that are outlined in this section and is a contribution towards knowledge in the contemporary arts.

Moonfae (Study)

Figure 62

Moonfae (Study)

Note. Dimensions approximately 200 x 300mm; including frame 325 x 425mm.

Figure 62 shows an example display of the painting. Different lighting effects will influence how it appears at exhibition. Light ambience and warm conditions can interact with the

pigments, causing the luminescent paint to glow, even in daylight. *Figure 62* is a photographed capture of the painting in one context. As a study, *Table 14* shows media used in both analogue and digital, along with *Projected Light,* which could be considered fitting both areas. Both *Printing* and *Photograph* were methods bridging analogue to digital and vice versa. *Audience Interaction* occurs if viewers choose to interact with turning a lamp on and off, which will change the ambient lighting, and the glow on the painting. Since the pigment used in this study can be charged through any light or heat sources, each spectator's view of the work will vary. The pigment used on this painting is however green in colour when it glows, rather than blue.

Table 14

Moonfae Study - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Painting	Painting	Not blue—luminescent green pigment (synthetic)
Printing	Photograph	Printed
Audience Interaction		Various other synthetic (highlighter (dye), pencil, pen ink, paints)
Light (luminescent pigment)		
	Projected Light	

Figure 63

Moonfae Study - Shinkyuu Art Model
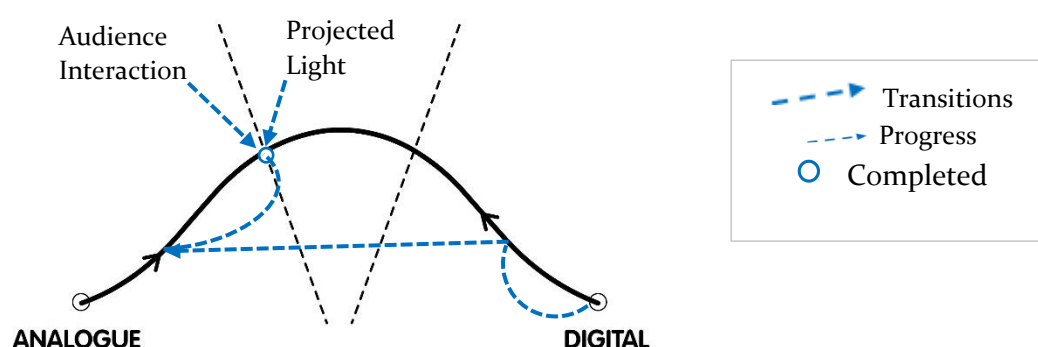
I consider this ARTefact to be adequately Shinkyuu Art balanced although *Figure 63* leans towards the analogue side. As a study, *Moonfae (study)* was predominantly about discovering how luminescent pigment could be employed. I initially surmised that mixing green light

emitting pigment with blue powders, would create blue or teal light, however this was unsuccessful. Instead, a blue version of the luminescent pigment was later made available, and this was utilised in the final piece, using this study's existing groundwork (see next section). What may be unnoticeable about both the study and final, is that some of the original digital lines and colours were maintained, as the paint only partially covers the digitally printed areas. This study contains more physical paint compared to the final due to an experimental process. AR was formerly created for this study but was transferred across to be implemented with the final. This study revealed luminescent pigments can be mixed although it does not change the coloured light it projects; that highlighters—with their alcohol base—allow luminescence to shine through better than drawing inks; and anything that was more opaque, such as paint, dims luminescent pigment.

Moonfae (Final)

Figure 64

Moonfae Final AR

Note. Dimensions approximately 410 x 520mm.

Figure 65

Moonfae Final
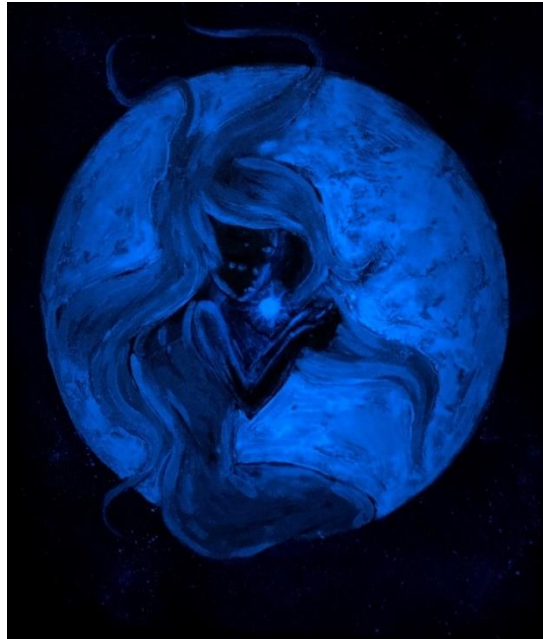
Note. Each image shows a unique and possible lighting display. Right: in dark ambience; Bottom Right: semi-dark; Bottom Right: full light. All were charged with UV light in varying areas and exposure times.

The final version of *Moonfae* (see Figure 64) uses blue light emitting pigment instead of the natural green. AR is used as a part of the presentation. To view the AR video scan *Figure 64* in app *Artivive*. The video contains the sound of a light switch. *Figure 65* shows examples of *Moonfae* in different light conditions and specifications as an example of what the artwork could look like at exhibition.

Table 15

Moonfae Final - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Painting	Painting	Luminescent (synthetic)
Printing	Mobile Device Screen	Digital Print
Audience Interaction	Photograph/Video	Screen
Light (luminescent pigment)		Synthetic (ink and paints)
Projected Light (UV)		

Figure 66

Moonfae Final - Shinkyuu Art Model
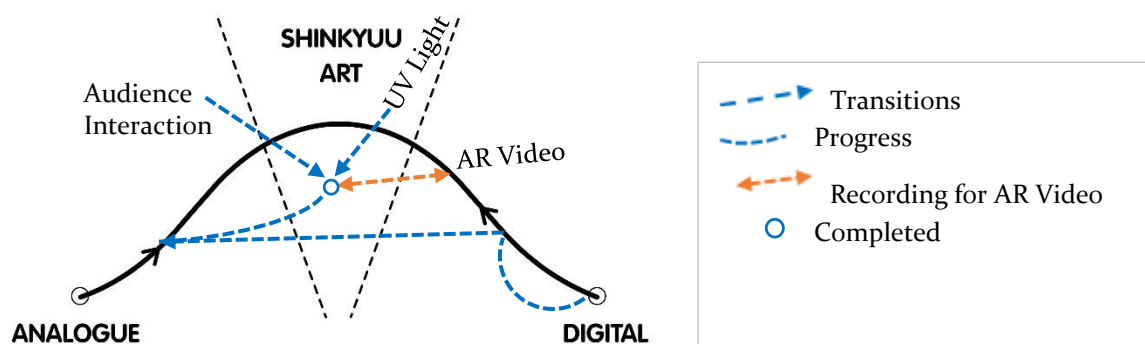
Table 15 shows more areas in the digital column compared to the previous study, bringing it towards a central balance on the *Shinkyuu Art Model* presented in *Figure 66*. Digital light from a screen is integrated in the ARTefact, alongside light from a UV lamp, and the natural glow from the luminescent pigment. The blue in this final version emanates from digital colour that has been printed, synthetic blue pigments, the luminescent pigment, the UV light, and the colours depicted on the digital screen showing a video of the painting. A UV lamp is required to charge the luminescent pigment used in the painting. Unlike the study, the pigments in this final do not charge through heat or non-UV light. Audience members are permitted to interact with the UV lamp by switching it off and on. Changing the ambient lighting may also help the AR app recognise the artwork more readily, if it is having trouble, as the AR app is limited to one digital capture of an image (which is *Figure 64*). Interaction with the ARTefact adds a physical analogue element to the installation.

Although luminescent pigments have been utilised in artworks before, the particular Shinkyuu Art method offered here may be the first documentation of its kind that also explains the process in the journals, and the demonstrated effects of luminescent pigment on certain materials. Various inks were lightly applied onto this ARTefact to retain the pigment's glow, with opaque paints generally avoided unless intentionally applied to block out the night sky. The night sky in this ARTefact is represented as a dark blue in daylight, influenced by my own existing colour associations. I was also cognizant that the night sky in this ARTefact would appear more appropriately black when lights were dimmed.

Red vs Blue / Double vs Standards (Final)

Figure 67

Red vs Blue / Double vs Standards

Note. Dimensions 4167 x 4167 pixels; equivalent to 705 x 705mm if printed.

Red vs Blue / Double vs Standards (see Figure 67), is a double-exposure illustration to be seen first on screen; and secondly, using anaglyph red and cyan glasses, or single lenses of those

colours, to view each colour independently. In case physical viewing is not possible please see Appendix Q. Like *Bluetiful* (page 135), this ARTefact will be exhibited on a monitor screen due to colour variations when it is printed (see also *Digital to Analogue Blue (Limitations),* p. 202). *Table 16* shows this ARTefact used more digital processes than analogue. Consequently, *Figure 68* is also digitally oriented. The anaglyph glasses provide a physical interaction requirement to engage with the ARTefact visually and conceptually.

Table 16

Red vs Blue / Double vs Standards - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Audience Interaction	Drawing	Screen Blue Light
	Monitor Screen	Screen Blue (Cyan)

Figure 68

Red vs Blue / Double vs Standards - Shinkyuu Art Model
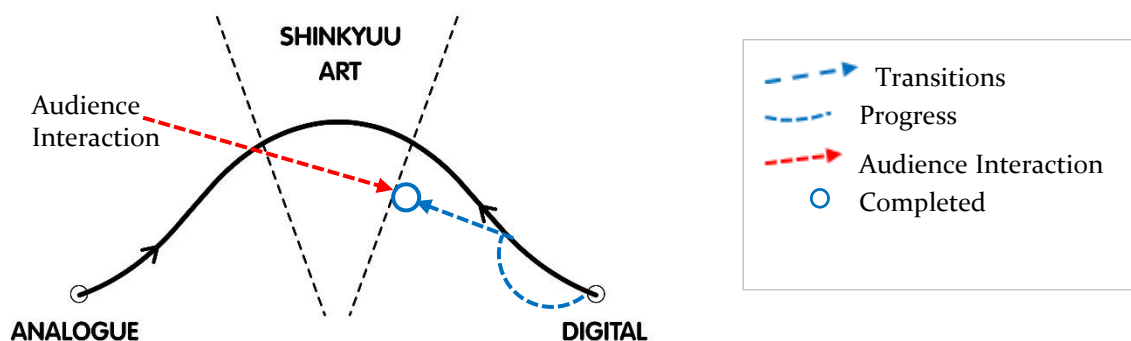
As mentioned previously regarding *Red vs Blue (*see page 103), the contrast and competing nature of red and blue are highlighted here whilst corresponding with the idea of double standards. The double standards portrayed relates to gender roles and stereotypes. The colour choice for *Figure 68* was made unconsciously, showcasing how ingrained red and blue is within my own culture. This ARTefact emphasises the differences between colours on screen and on print. It also adds to the existing literature surrounding blue and red in art, as contrasting yet complementing colours, and how psychology influences concepts and creation.

My Hair is Dayflower on Dayflower Paper against the Sun (Studies)

Figure 69

My Hair is Dayflower on Dayflower Paper against the Sun (Studies) - Used digital print transparencies on home-made aobanigami

Note. Dimensions approximately 150 x 210mm; including frame 230 x 285mm.

Figure 70

My Hair is Dayflower on Dayflower Paper against the Sun (Studies) - Sun faded, printed and water soaked aobanigami

Note. Dimensions approximately 130 x 165mm; including frame 230 x 285mm.

Figure 71

My Hair is Dayflower on Dayflower Paper against the Sun (Studies) - Water Press on Kozo:

Note. Dimensions approximately 150 x 170mm; including frame 230 x 285mm.

Figure 69 through to *Figure 71*, depict front and back images of a triptych with different lighting requirements. *Figure 70* will be backlit to reinforce the transparency of blues and increase image visibility, whereas the other two images will be lit naturally. The images are viewable from both sides of the frame and are linked through the pigment used from a single sheet of aobanigami/Dayflower Paper. *Figure 72* shows this ARTefact commences from where study *Figure 30* concluded. A digital illustration was completed and printed onto various transparency layers, to be exposed over Dayflower Paper. From there, all three images for this ARTefact triptych could be created. *Figure 69* salvages the discarded transparency sheets, and leftover dayflower pigment applied onto textured kozo paper from *Figure 77* through to *Figure 79,* by arranging and layering them together. The initial placement was an accident, however upon seeing the arrangement, I decided it was aesthetically pleasing. With some adjustment this study was completed. This study is an example of creativity occurring despite the setback of *Figure 30* (see Appendix B). All the original guiding tapes, pigment smears, and jagged edges were left unchanged, accenting the ARTefact's beginnings. Both *Figure 70* and *Figure 71* were created simultaneously, using the original leftover Dayflower Paper from *Figure 30* as a

Water Press (see Appendix P; and *The Naming of a Work,* p. 197), but the former had digital lines printed on it before pressing and will be backlit at exhibition to showcase its vibrancy.

Table 17

My Hair is Dayflower on Dayflower Paper against the Sun (Studies) - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Printing	Painting	Natural Pigment (C. communis, L.)
Dying		Laser Printing Ink
	Projected Light	

Figure 72

My Hair is Dayflower on Dayflower Paper against the Sun (Studies) - Shinkyuu Art Model
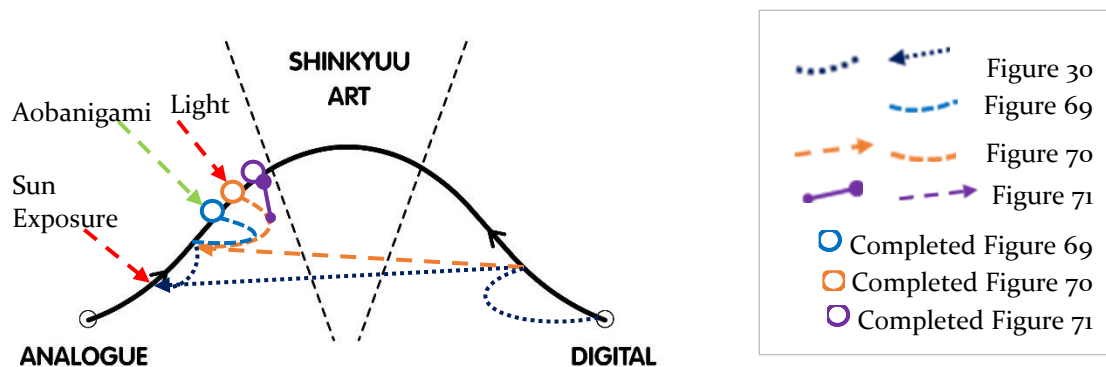
Note 1. The aobanigami was handmade from leftover pigment and kozo paper, as a result of the construction of other ARTefacts: *Figure 77* through to *Figure 79*: *My Hair is Dayflower printed on Dayflower Paper, Drenched with Water, with Drips and Drops (triptych).*
Note 2. Figure 30 whilst previously discarded, is recycled for this artefact.

Despite beginning digitally, the images shown in this ARTefact were transferred and completed extensively in analogue. *Figure 72*, shows it has a predominantly analogue *Shinkyuu Art Model*, although *Table 17* shows a fairly even ratio between digital and analogue media. Some images in this triptych, however, do lean towards a central *Shinkyuu Art Model* balance, despite being analogue orientated, due to how they transitioned between media as shown in *Figure 74*. How an image appears visually also effects this balance, providing insight into

Shinkyuu Art practice. *Figure 69* has both digital (although printed) and analogue (Dayflower Paper) elements, and is an acceptable Shinkyuu Artwork. *Figure 70* also transitions from digital to print (analogue), however, the Water Press technique faded the digital lines, giving it the appearance of Tradigital Art. *Figure 71* received no digital interaction, other than some minor tracing of digital lines from the previous figure. This ARTefact reveals information on the differences between Shinkyuu Art and Tradigital Art (see later, *Differences from Tradigital Art*, p. 192).

My Hair is Dayflower on Dayflower Paper

Figure 73

My Hair is Dayflower on Dayflower Paper
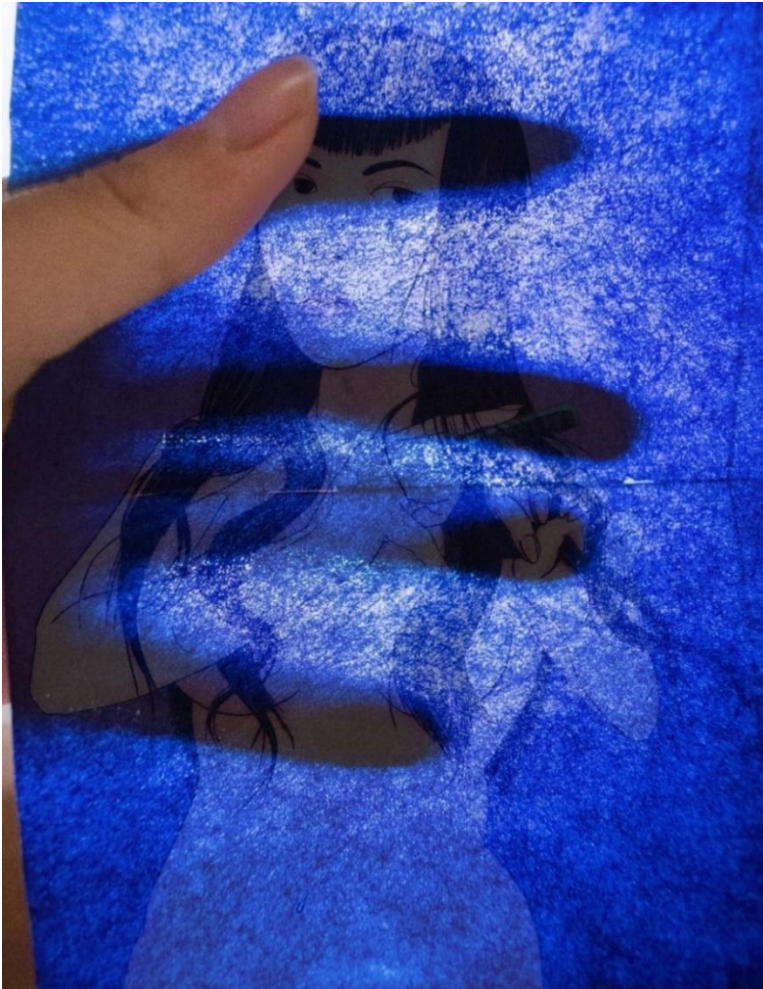
Note. Dimensions 6188 x 7975 pixels; equivalent to 2183 x 2814mm if printed.

Figure 73 is an example of the *Shinkyuu Art Model* orienting towards the digital side whilst having a fusion appearance (see Figure 74). In this figure, there are two starting points from both analogue and digital, however the ARTefact was finished digitally by combining photos

with a digital program. The intention of the artwork was to look like a photograph of a hand-drawn image, however the process behind-the-scenes (see Table 18), dictates the lines were initially digital. The same image can be seen repeating in other ARTefacts (see previous and next section). From a trained eye, the lines of *Figure 73* are clearly digitally made. The ARTefact suggests tangibleness, from the hand holding onto the aobanigami, and spotlights the paper's translucence against light. To a degree, I would categorise this work as Tradigital Art, however, my intention was to create Shinkyuu Art. The ARTefact could be classified as both and reveals more knowledge on the differences between Tradigital and Shinkyuu Art media. The vividness of blue in this image, captured by a photograph, was only possible when the aobanigami/Dayflower Paper was held up against natural light. The shadow from the hands seen in *Figure 73*, provides a glimpse of what the blue colour looked like without being backlit. This specific ARTefact inspired many other dayflower artworks, utilising backlighting, and pinpointing an importance of spontaneity in artwork creation and practice.

Table 18

My Hair is Dayflower on Dayflower Paper - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Natural Light	Painting	Natural Pigment Object (C. communis, L. aka dayflower paper/aobanigami)
Photograph of physical interaction	Monitor Screen	
	Photo Manipulation	

Figure 74

My Hair is Dayflower on Dayflower Paper - Shinkyuu Art Model
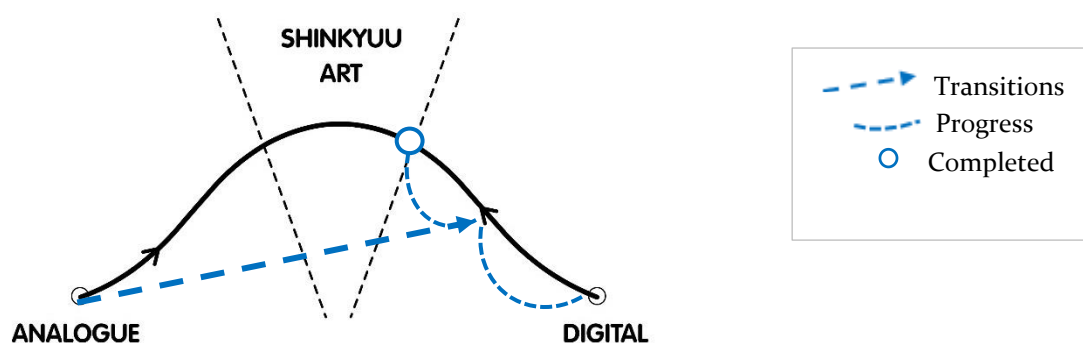
My Hair is Dayflower on Dayflower Paper on Transparencies

Figure 75

My Hair is Dayflower on Dayflower Paper on Transparencies

Note 1. Image Left is strongly and appropriately backlit, compared to image Right, which instead shows some of the complexity of blemishes that occurred.

Note 2. Dimensions approximately 210 x 290mm; including frame 230 x 325mm.

While experimenting with backlighting, I attempted printing the previous ARTefact on transparencies, to create a physical version. The sheets slipped in the printer and caused defects in the prints. However, it also contributed to naturally forming blemishes that fall into the concept of creativity in chaos (see Appendix B and Appendix R). Instead of wasting prints, this ARTefact combines multiple failures and a backlight, to portray an analogue approach devised from the same imagery as previous ARTefacts (see Figure 75). A strong isolated light source is required to penetrate layers in this ARTefact. This necessitated synthetic light sources, placing *Projected Light* into the *Digital* category of *Table 19*. The *Shinkyuu Art Model* seen in *Figure 76* continues where the previous ARTefact concluded, however it settles on the *Analogue* side of the model. This ARTefact contributes to understanding that the process and

practice for Shinkyuu Art is flexible, variable, and ongoing, provided the artist has an attainable pathway.

Table 19

My Hair is Dayflower on Dayflower Paper on Transparencies - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Prints on transparency film	Painting	Laser Printer Ink
Printing flaws during production	Photo Manipulation	Blue light (through film)
	Projected Light	

Figure 76

My Hair is Dayflower on Dayflower Paper on Transparencies - Shinkyuu Art Model
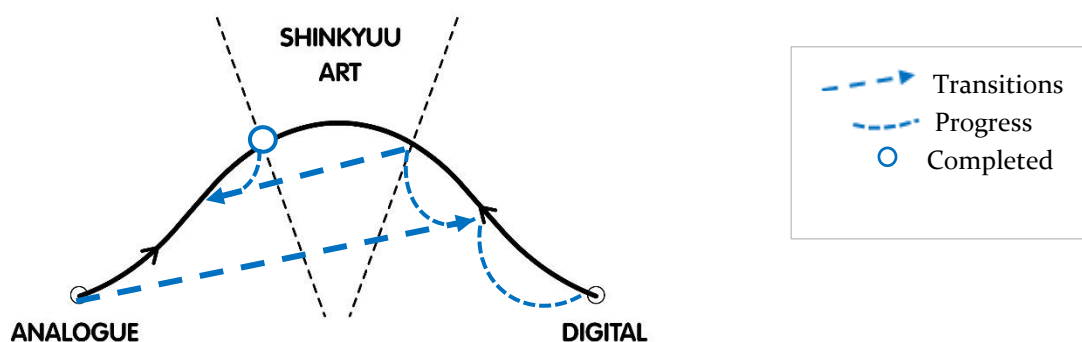
My Hair is Dayflower printed on Dayflower Paper, Drenched with Water, with Drips and Drops (triptych)

This series of images must be exhibited above one another in the same order presented here (see Figure 77, Figure 78, and Figure 79). *Figure 79* may be exhibited underneath the former images lying flat. To view the accompanying AR video scan *Figure 79* in app *Artivive.* The AR video for this ARTefact integrates the behind-the-scene process documented for research, as a separate component of the ARTefact. *Figure 77, Figure 78,* and *Figure 79* are a triptych that was created simultaneously, using water to transfer pigment from Dayflower Paper, and printed digital lines from the original *My Hair is Dayflower* (p. 127). This ARTefact's entire process was recorded, however, only a small section was integrated into the AR video. *Figure 77* was the

image revealed after soaked Dayflower Paper was removed. Both *Figure 78* and *Figure 79* captured how excess watery pigment made organic and random looking marks on their canvases. Excess pigment from these ARTefacts was turned into handmade aobanigami, which was consequentially used for *Figure 69* (see page 162).

Figure 77

My Hair is Dayflower printed on Dayflower Paper: Drenched with Water

Note. *Figure 77* approximately 300 x 400mm; including frame 430 x 530mm.

Figure 78

My Hair is Dayflower printed on Dayflower Paper: Drips
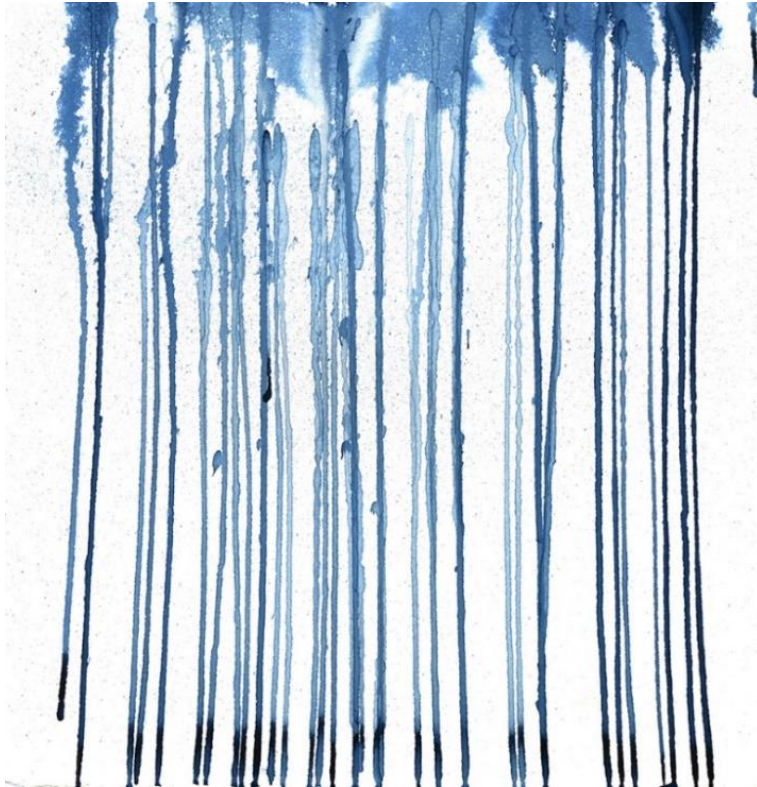
Note. Figure 78 approximately 300 x 300mm; including frame 540 x 540mm.

Figure 79

My Hair is Dayflower printed on Dayflower Paper: Drops

Note. Figure 79 approximately 200 x 300mm; including frame 325 x 425mm.

Table 20

[...] Drenched with Water, with Drips and Drops (triptych) - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Water / Paint technique	Video Recording	Natural Pigment (C. communis, L.)
Audience Interaction	Mobile device screen (AR)	Screen Blue

Figure 80

[...] Drenched with Water, with Drips and Drops (triptych) - Shinkyuu Art Model
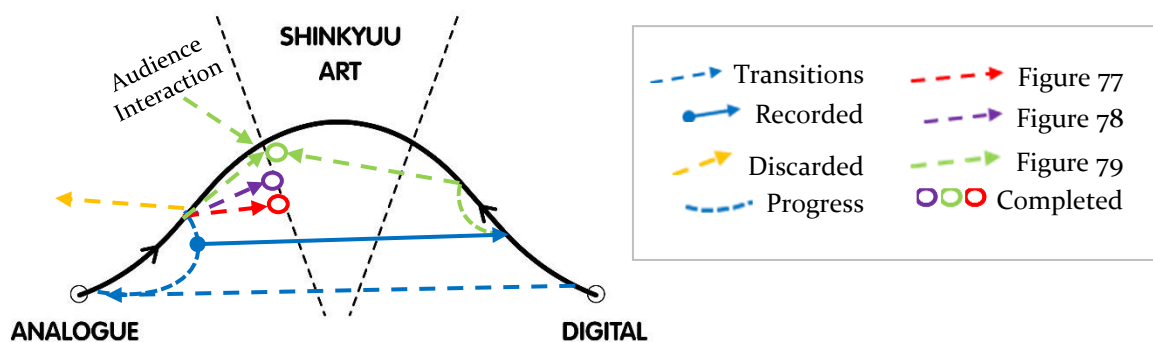
Note. Figure 79 leans more towards the centre than the other figures, as it integrates with the AR recording. The used Dayflower Paper was considered too damaged for exhibition and is discarded.

Table 20 presents an equal quantity of each category, although this is split across the triptych. Overall, the *Shinkyuu Art Model* shown in *Figure 80* brandishes three images along the analogue side, with slight variations in *Figure 79. Figure 77* and *Figure 78* do not appear fusion, despite transitions from digital to analogue and back, as displayed in *Figure 80*. This study revealed more characteristics of Dayflower Paper, contributing new knowledge in its use as a material in art practice. Dayflower Paper can withstand concentrated amounts of water and contains enough pigment to retain colour on the paper although it is fragile. The leftover Dayflower Paper from this artwork was not chosen to be exhibited alongside the other pieces. Although still presentable, it did not contribute anything more to the ARTefact. The leftover Dayflower Paper was torn from rough handling, and its originally printed lines faded by water. From a presentation point-of-view the leftover dayflower was unneeded. Although this triptych stemmed from a singular pigment, each image appears to showcase a unique,

monochromatic, suffusion of blue. The innovative process used to create this ARTefact was wholly physical and visceral.

My Hair is Dayflower on Dayflower Paper on Prussian Blue (Cyanotype)

Figure 81

My Hair is Dayflower on Dayflower Paper on Prussian Blue (Cyanotype)

Note. Dimensions approximately 300 x 400mm; including frame 420 x 520mm.

In one of the last attempts to create a centrally balanced *Shinkyuu Art Model,* I gathered leftover transparency sheets for cyanotype exposure prints (see Figure 30). Cyanotypes use Prussian Blue pigment (see also page 91). The best print achieved from this study has even blue tones and contrast, although it also includes a slight flaw (see tiny stick mark on Figure 81). *Figure 81* can be scanned in app *Artivive* for an AR video. This video is a slideshow of all prints created for this ARTefact, including failures, incorporating them into the artwork itself.

Here, AR bridges analogue images to digital media; and work-in-progress studies to finals. *Table 21* shows balance between quantity of media used, including a screen and physical blue. *Figure 82* still rests on the analogue side of its adapted *Shinkyuu Art Model* despite the process being suggestive of Shinkyuu Art. This ARTefact reveals more knowledge on Shinkyuu Art practice. Transferring media across platforms is not indicative of Shinkyuu Art; however, AR apps allow for both real-life and digital objects to merge.

Table 21

My Hair is Dayflower on Dayflower Paper on Prussian Blue (Cyanotype) - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Print on Transparency Sheets	Photo Manipulation	Screen Blue
Hand Printing	Drawing	Synthetic Pigment
Natural Light Exposure	Scanned Image (AR)	(Cyanotype, ferric
		ferrocyanide aka
Audience Interaction	Mobile Device Screen	Prussian Blue)

Figure 82

My Hair is Dayflower on Dayflower Paper on Prussian Blue (Cyanotype) - Shinkyuu Art Model
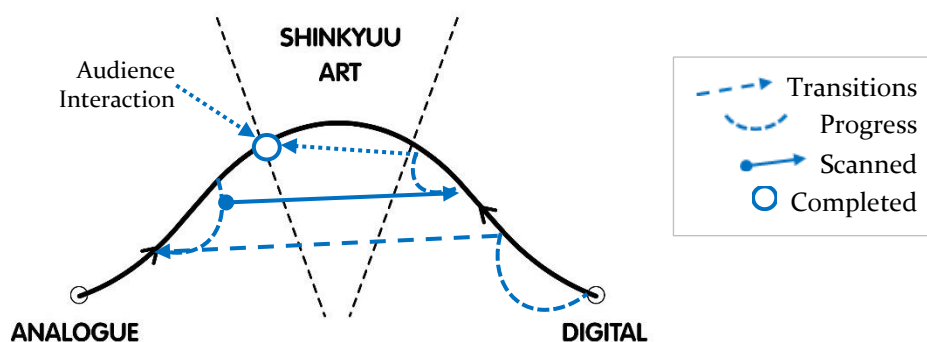
My Hair is Dayflower as Cyanotype on White Glitter (Study)

This particular study is included for exhibition to demonstrate findings. It was not an aesthetic decision. *Figure 83* presents as analogue despite using digital lines from photo negatives (see also Figure 84 and Table 22). Instead of being blue like most cyanotype prints, the cyanotype interacted with the white glitter canvas, and appears grey in this ARTefact.

More on the colour itself is discussed later (see *The Potential of* Blue, p. 203). Neither this study nor the next were made with the intention of creating Shinkyuu Art. They were made for discovery, with later intentions of creating a refined piece. This piece did not eventuate, although this study remains presented here as it reveals additional knowledge on mixed media arts practice, and how different materials interact with different methods.

Figure 83

My Hair is Dayflower as Cyanotype on White Glitter (Study)

Note. Dimensions approximately 140 x 180mm; including frame 235 x 325mm.

Table 22

My Hair is Dayflower as Cyanotype on White Glitter (Study) - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Hand Printing	Drawing	None: Synthetic Cyanotype appearing grey
Printed transparency films		

Figure 84

My Hair is Dayflower as Cyanotype on White Glitter (Study) - Shinkyuu Art Model
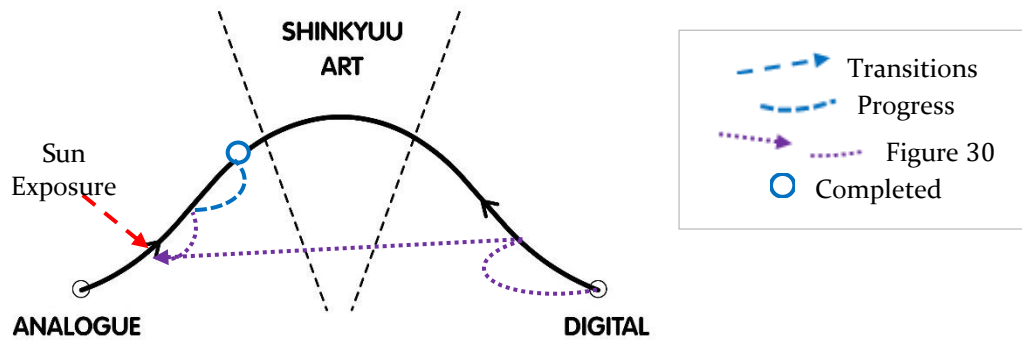
Yes or No? (Study)

Figure 85

Yes or No? (Study)

Note. Dimensions approximately 220 x 300mm; including frame 325 x 425mm.

Figure 85 requires viewing from different angles in-person. Depending on the angle and light conditions (see also *The Light upon Blue,* p. 201), the text printed on the glitter canvas appears

either obscured or legible. Inspired by the grey appearance of the previous study this ARTefact observes the effects of cyanotype on blue glitter. Consequently, *Table 23* and *Figure 86* list no digital media. Viewers are required to physically move around the artwork if they wish to see the text upon it. Some lighting has been found to be better than others.

Table 23

Yes or No? (Study) - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Audience Participation	None – other than photographic documentation	Synthetic (Cyanotype)
Hand Printing		Glitter

Figure 86

Yes or No? (Study) - Shinkyuu Art Model
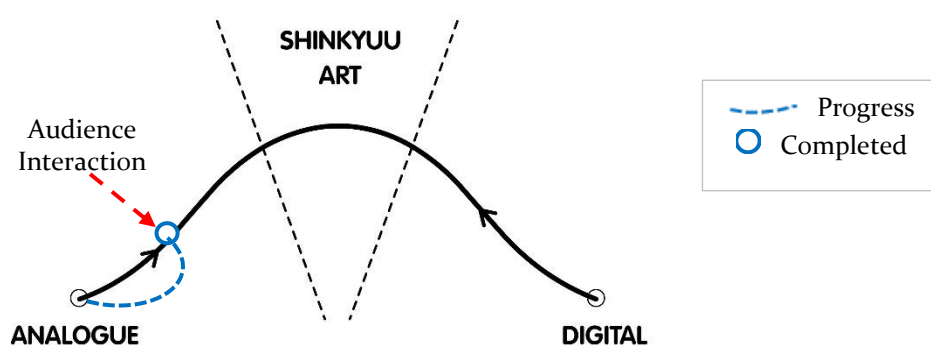
The image presented in *Figure 85* is a single photographic instance of the ARTefact. Glitter can only be authentically represented in the physical realm. In person, it is possible to see how surfaces reflect light. Capturing light reflection is more difficult to comprehensively present in digital content like *Figure 85*. Glitter, consequently, is analogue medium. The cyanotype appears to have dyed the canvas of this ARTefact a darker shade and does not obscure the glitter unlike other paint mediums. For the print to adhere on the canvas, the cyanotype solution was heavily layered on both this and the previous study. I initially considered using Prussian Blue powder with a "one-particle thin" binder, (which my studies found does not diminish the lustre of glitter), to add letters "Y" and "N" to this ARTefact, however the

placement of the three current words "Can You See" did not allow for more text. Instead, this concept is fixed into the title of the work—"Yes or No?".

Scurvy Weed in the Rain

Figure 87

Scurvy Weed in the Rain

Note. Dimensions approximately 160 x 220mm; including frame 235 x 325mm.

Blue pigment was obtained from the petals of Australian Scurvy Weed to colour an illustration of the flowers (see Figure 87). The pigment is rare due to the tediousness of obtaining it naturally, with no commercially made paint available at time of writing. With similar properties to dayflower, it was decided that this ARTefact painting would be washed in the rain to emphasise its ephemeralness and highlight the necessity of its digital recordings.

Invisible, waterproof, black-light viewable ink, was mixed with Scurvy Weed pigment before being applied to canvas. This waterproof ink should hypothetically maintain its position on the canvas, while the Scurvy Weed pigment is washed away in the rain. However, the two fluids interacting caused a phenomenon, where the invisible ink moved with the Scurvy Weed

pigment. The ink is meant to be "bulletproof"—it should not budge, fade, or wash away, except it did in this single circumstance. My original tests combining these pigments acted as previously predicted, so it was a surprise to see the invisible ink lines had moved under UV light (see the right side of *Figure 87*). Admittedly, the original tests were done on a smaller scale with dayflower pigment. There is a possibility that the age and storage of the Scurvy Weed pigment may have caused it to react unexpectedly. The Scurvy Weed pigment was applied undiluted onto this ARTefact. In any case, *Scurvy Weed in the Rain* becomes another example of *Creativity in Chaos* (see Appendix B). It is interesting to see the pigment lines running down the surface of the work. This ARTefact reveals new knowledge on how materials can interact within fusion art practice. Water resistant teal ink and yellow was used to colour other sections in this ARTefact. The additional colour was needed to emphasise the vibrant blue of the flowers and provide contrast (see also *Colours Not Blue,* p. 203).

There are two video files that form a part of this artwork—one a short clip of the artwork in the rain with sound, that will be presented on a monitor screen at exhibition; and the other, an AR video that can be seen by scanning the left side of *Figure 87* in app *Artivive.* To view the former video file outside of the exhibition, see Appendix S. *Figure 88* shows a centrally balanced *Shinkyuu Art Model* for this ARTefact. A digital photo-manipulation was created as a reference photo for the illustration but not incorporated into the work otherwise. The ARTefact as seen in *Table 24* and *Figure 88*, is Shinkyuu Art in both progression and aesthetics.

Table 24

Scurvy Weed in the Rain - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Painting	Mobile Device Screen (AR video)	Natural Pigment (Commelina cyanea)
Audience Interaction	Monitor Screen (video with sound)	Synthetic Pigment (inks)
Washing in Rain	Projected UV Light	UV Light
	Scanned Image	

Figure 88

Scurvy Weed in the Rain - Shinkyuu Art Model
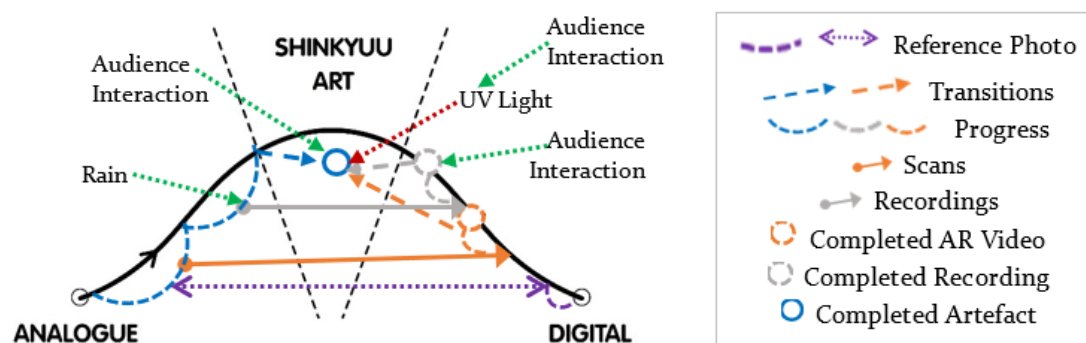
Note. Three *Audience Interaction* labels are required—one for an AR time-lapse video, another for viewing the recording with headphones on, and a third option to turn on/off the UV light, consequently revealing or hiding the invisible ink.

Although I had been initially disappointed by the invisible ink lines moving across the paper, I was also pleasantly surprised. *Scurvy Weed in the Rain* is an artwork I am personally proud of. My *2019 Journal* details how I collected Scurvy Weed blooms for hours with friends/volunteers under a hot humid Sydney sun (twice, after the first batch disappeared before my eyes due to water condensation); how I created home-made pigment and travelled with it across states; how I used every drop of pigment on this single ARTefact; and then let the rain wash my pigment away. I still, however, have my digital scans and my memories, and the result is both aesthetically pleasing and cathartic.

Drying Weed

Figure 89 Drying Weed, is a play-on-words with implication, as Scurvy Weed was dried for this piece and is considered a weed as suggested by its name (see *Finding Commelina.,* p. 94). All the flowers used for this ARTefact were home-grown. The method for drying these flowers was modified from found tutorials using a clothes iron, as no found tutorials addressed the process needed for these specific blooms. Scurvy Weed could not be dried traditionally due to moisture evaporating the pigment; nor dried via express methods, as those methods do not account for the flowers' delicateness and gumminess when heat is applied. The best method for drying Scurvy Weed was found through experimentation and is outlined in Appendix T. The only flowers that were not completed with the same drying method were the slightly transparent ones on the left side of the image (see Figure 89). These were dried using a slower,

more traditional method, and are visible in the AR video as the first flowers placed on canvas (scan Figure 89 in app Artivive). Some flowers in *Figure 89* were ironed directly onto canvas rather than dried before attaching. The strip of blue Scurvy Weed pigment, that is painted abstractly along the top edge of this ARTefact, is a tribute to Ukiyo-e blue skies.

Figure 89

Drying Weed

Note 1. The existing artwork has faded since the time of this photo.

Note 2. Dimensions approximately 315 x 120mm; including frame 400 x 200mm.

The flowers used in this ARTefact bloomed at varying tonal shades and hues. None of the Scurvy Weed flowered purple, however, closing bulbs would sometimes concentrate into purple. The pigment obtained from purple petals consistently faded back to blue, however drying the bulbs retained their purple colour. *Figure 89* should be scanned in the *Artivive* app for the AR video which shows a time-lapse of the ARTefact being assembled.

In a surprise turn of events, the green colour of the leaves in this ARTefact faded before any blue pigment did. I had been prepared for the blue to fade, but not the green leaves. This change was disappointing given the ARTefact was yet to be exhibited and had been well-stored. I eventually accepted the wabi-sabi nature of the work.

Figure 89, and the ARTefact in person, is fortunately still recognised by the AR app *Artivive*. It is clear from both *Table 25* and *Figure 90* that the AR video allowed the ARTefact to become Shinkyuu Art. The canvas, although physical, can be viewed on a mobile device screen due to

the AR component. Without the AR, however, this ARTefact is only analogue-presenting. Consequently, *Figure 90*'s adapted *Shinkyuu Art Model* charts slightly towards the *Analogue* side.

Table 25

Drying Weed - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	Digital/Technologic	Type
Flower Pressing	Photographs (AR)	Natural Pigment from Objects (C. cyanea)
Objects	Mobile Device Screen	
Audience Interaction		

Figure 90

Drying Weed - Shinkyuu Art Model
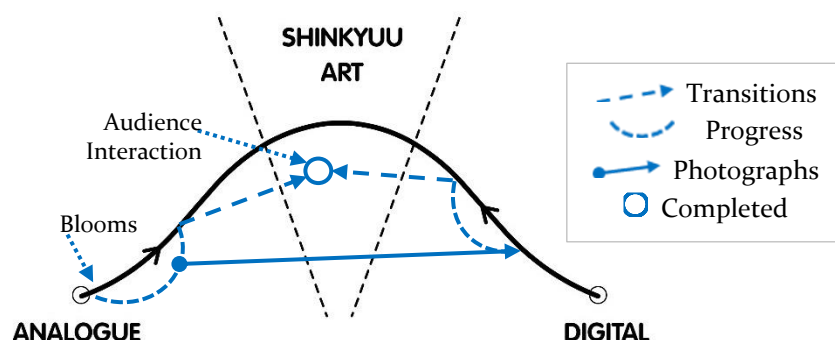
The texture of *Figure 89* is varied, from raised plants to the canvas embedded petals and extruding plants. The smooth wooden frame adds another textural component to this ARTefact, and the AR video adds physicality from the mobile device. In an ode to Scurvy Weed's behaviour, the ARTefact is fragile and will continue to fade with time. The fading emphasises wabi-sabi concepts that nothing lasts forever. Scurvy Weed blooms last a single day, however, here they are preserved for a little bit longer due to digital technology. This and the previous ARTefact are the first known Scurvy Weed pigment artworks in existence.

As a final touch, a strip of blue was placed above the pressed flowers, tributing Ukiyo-e artworks and representing the blue sky. The day this ARTefact was completed I had both "so many flowers" and "[n]ot many overall" (*2019 Journal,* p. 300). The scarce petals I did have,

were grinded directly onto the canvas and was thankfully enough (see Appendix BB).

Growing Weed

Figure 91

Growing Weed
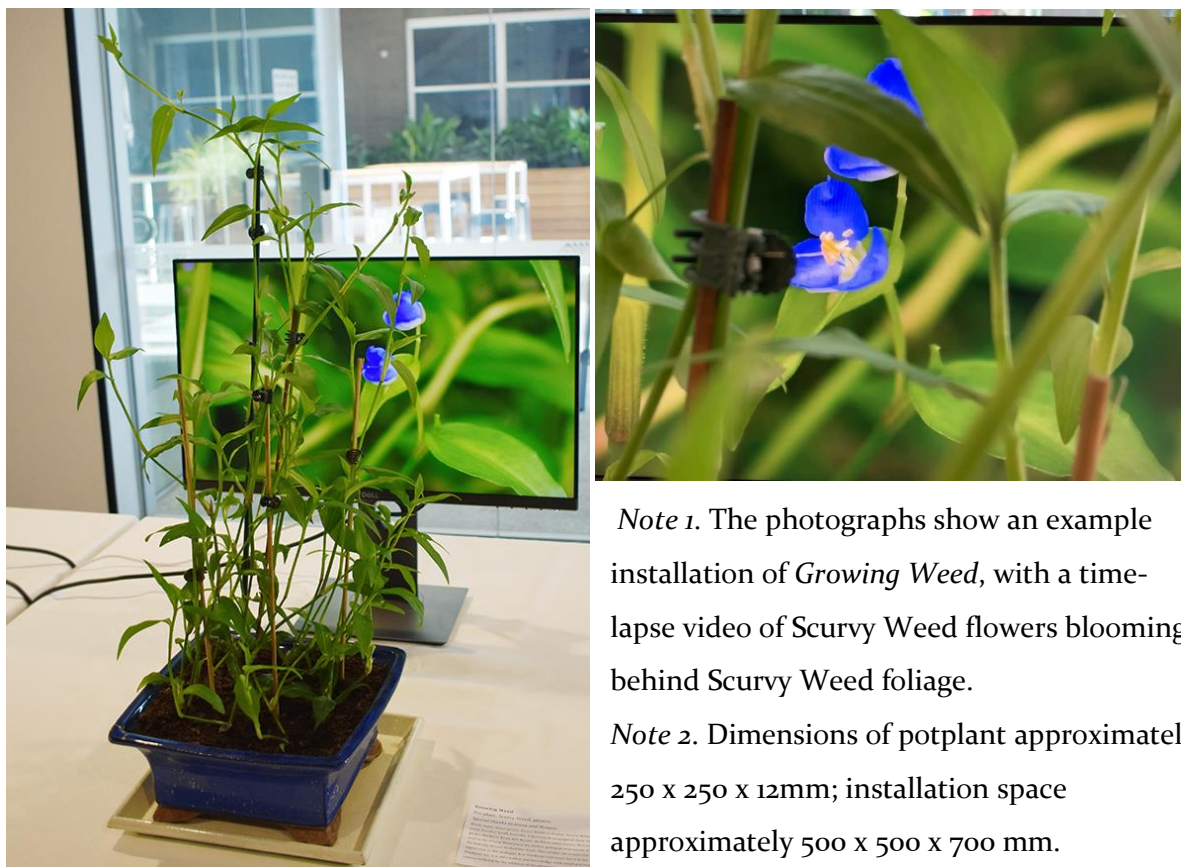
 Note 1. The photographs show an example installation of *Growing Weed*, with a time-lapse video of Scurvy Weed flowers blooming behind Scurvy Weed foliage.

Note 2. Dimensions of potplant approximately 250 x 250 x 12mm; installation space approximately 500 x 500 x 700 mm.

Figure 91 is a photograph of the installation that will be shown at exhibition. A time-lapse video of Scurvy Weed flowers blooming will play behind a live pot plant of Scurvy Weed. Please see Appendix U for a preview of this ARTefact if unable to view in person. The video shows a blooming Scurvy Weed flower, and the pot plant provides a real-life indication of the plant's appearance. Although Scurvy Weed is native to Australia, it is not commonly found in South Australia. This ARTefact complements the previous ARTefact *Drying Weed*. This ARTefact, *Growing Weed,* was not originally intended as Shinkyuu Art but as a documentation of the Scurvy Weed plant itself and an installation of knowledge. However, both elements together create a depth that highlights the beauty of Scurvy Weed and links the ARTefact with the journals which discusses the work undertaken to collect, grow, utilise, and document this very Scurvy Weed. Whether there are any blooming flowers during exhibition will be decided

by the plant and seasons. Both *Table 26* and *Figure 92* review the work from a Shinkyuu viewpoint. The plant is distinctively a physical element—viewers may interact with the plant if they choose; whilst the video is digital.

Table 26

Growing Weed - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Real Life	Photographs	Natural Pigment from flowers (C. cyanea)
	Monitor Screen	Synthetic colour of pot

Figure 92

Growing Weed – Shinkyuu Art Model
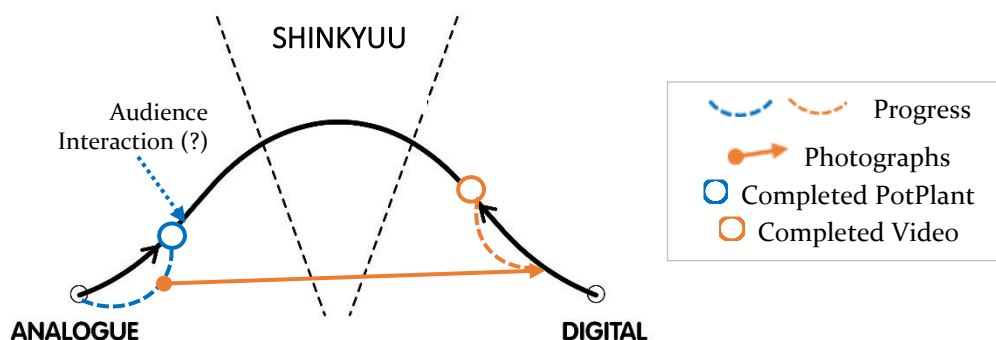
Note. Both entities can be considered separate with their detached *Completed* points, but they are installed together for exhibition. As the plants were home-grown, I have included their *Progress.*

Billie

Billie (Figure 93) was one of the last ARTefacts completed due to its experimental nature, the Shinkyuu Art process needed, and the symbolic relationship with blue required. Half of the painting in this ARTefact is physical paint, while the background is a digital HEX blend of the same blue pigments projected on screen. Both separate components of this ARTefact could display individually, although the intention is, they be displayed together. Separated, the paintings are incomplete. The physical painting component was completed on glass to utilise its transparency. The pigments YInMn/Oregon Blue and Lapis Lazuli/Natural Ultramarine required mixing with a binder that not only adhered to glass, but also deepened colour tones.

Binders are especially important with Lapis Lazuli which pales in acrylic (see Appendix V). As the pigments were costly, small tests with different binders were completed instead of full studies, allowing for more pigment to be available for the final ARTefact. The binder chosen for this ARTefact, called *Primal*, had not yet been combined with YInMn before (see specifically Appendix V *2019 Journal* section, entry date *31/12/2019, pp.315-316*) (D. Coles, personal communication, December 12, 2019).

Figure 93

Billie
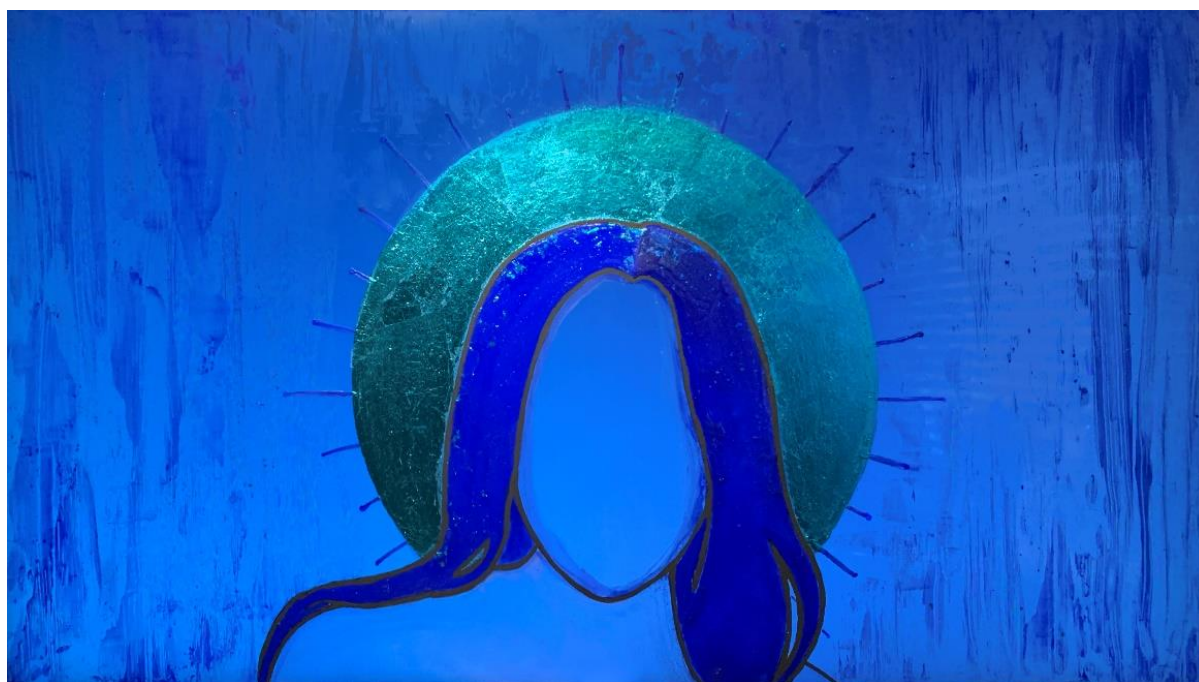
Note 1. The photograph is an example installation.
Note 2. Dimensions approximately 545 x 305mm; including frame and stand 570 x 430mm.

This ARTefact has a teal, silver-leaf foil halo. Although I had tried using a blue to silver tone halo, the green contrast in this final ARTefact provides warmth that benefits the painting (see also *Colours Not Blue,* p 203; and *The Potential of Blue,* p. 203). Matte black lines were used for contrast, although ambient light affects how black these lines appear—for example they look grey in *Figure 93*. The background in this ARTefact is bright, complementing the intensity of the dark blues against the teal of the halo. The halo and Lapis Lazuli reference religious icons. YInMn—the newest blue created, alongside Lapis Lazuli—one of the oldest created, provides a statement of old and new—the essence of Shinkyuu Art. Both pigments are similarly expensive, sharing a comparable relationship to iconography art. This ARTefact is centrally composed on the *Shinkyuu Artwork Model* (Figure 94). *Table 27* presents varying quantity of

media yet the ARTefact also achieves the goal of looking aesthetically like Shinkyuu Art and encompasses several blues from different sources. This ARTefact reveals the impact of colour association on an artwork.

Table 27

Billie - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Painting	Digital Colour	Natural Pigment (Natural Ultramarine/Lapis Lazuli)
Mixed Medium	Monitor Screen	Synthetic Pigment (YInMn/Oregon Blue)
	Screen Light	HEX Code Screen Blues (YInMn #2e5090, Lapis Lazuli #26619c)
		Coloured Silver Leaf

Figure 94

Billie - Shinkyuu Art Model
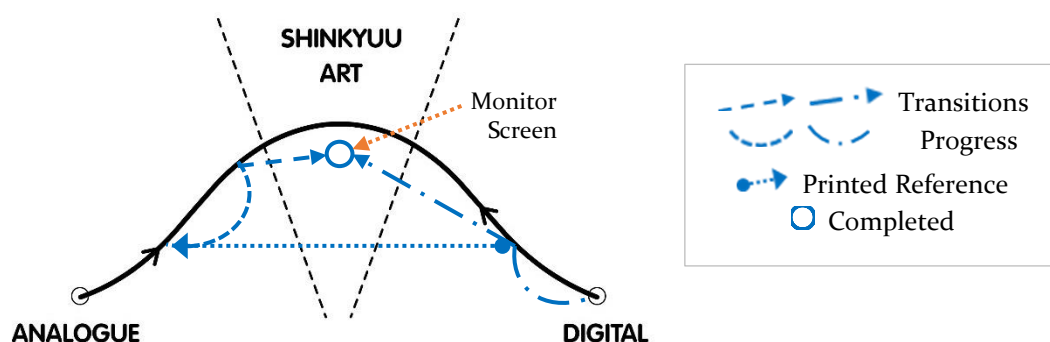
Note. Two components are combined into one work. As neither work is complete without the other, they are depicted in the same colour with different dash styles.

Billie is both a personal worship of a modern-day pop icon, and an acknowledgement of the conflation of religious worship of modern-day pop icons. In my *2020 Journal* I discuss old icons (religious) versus new (celebrities). *Billie* is based on religious iconography paintings yet the pop musician Billie Eilish, of which this artwork was also modelled off, is not a religious icon herself. Billie Eilish made an appropriate model for my ARTefact *Billie,* although without facial features she is represented almost, anonymously.

IKBSoD

Figure 95

IKBSoD

Note 1. The photographs are an example of installation with video running in the background. For a recorded example of the video installation, please see Appendix W.

Note 2. Dimensions approximately 545 x 305mm; including frame and stand 570 x 430mm.

Both *IKBSoD* (see Figure 95) and the previous ARTefact were created simultaneously, with this one completed first. I was concerned about painting on glass as it was an unfamiliar area for

me. Fortunately, the pigment for this ARTefact used International Klein Blue (IKB) which was premixed into a *Primal* binder (see Table 28). Although the same binder is used for *Billie* the result is different. Here, it is exceptionally matte and dry, and applies uniformly and finely even when texture is built upon it. *Billie* is the reverse of this, where the paint texture is shiny, bubbly, grainy and layered. This variance in character highlights differences due to their chemical properties. Both *Billie* and *IKBSoD* revealed new knowledge on pigment characteristics, and on the *Primal* binder as an art material.

Table 28

IKBSoD - Categories of Medium and Blue

Medium		Blue
Analogue/Traditional	**Digital/Technologic**	**Type**
Painting	Animation	Synthetic Pigment (International Klein Blue)
Installation	Monitor Screen	Screen Blue Light
Projected Light	Glitch Art	HEX Code Screen Blues (various)

IKBSoD is the last ARTefact to be shown here, although it was completed second-to-last chronologically. It refers to blue's symbolic relationship with death through an illustrated skull and the Blue Screen of Death. Unconsciously, I ended this section of the exegesis with an ARTefact relating to death. This ARTefact shows a blue skull painted onto glass, which is overlaid in front of a video where various comments that can be considered offensive are "shut down" by the imaginary (and created) Blue Screen of Death. I was influenced by mood and inspired by people who refuse to look beyond surface level occurrences. This ARTefact requests viewers to look deeper, beyond the 'book cover' or the first screen, and past the obscuring marks to view the whole image. *IKBSoD* is a political statement and provides insight into my own personal ethos. The Blue Screen of Death was a more common occurance when I had started using computers—this ARTefact is a product of my time, although it also asks viewers to slow down in this fast-paced world of the internet.

Data bending was used in the ARTefact video to accentuate events. The Blue Screen created for the video uses the HEX code for IKB. Although both the physical painting and HEX code are meant to be the same colour, it is apparent that they do not match (see *Analogue to Digital Blue (Limitations),* p. 201). If the physical painting is backlit, the blue paint can be made to

match the digital screen colour; however, this backlighting also reflects smudges and brushstrokes that should remain transparent. For more on the blue used in this work, see also *The Potential of* Blue, page 203.

Both *Billie* and *IKBSoD* display a simpler *Shinkyuu Art Model* than some previous artworks (see Figure 96), demonstrating that Shinkyuu Art does not always require reproductions across media, such as through printing, scanning, or recording. *IKBSoD* is still positioned centrally on the model. The benefit of glass as a canvas is its transparency, which allows for layering images. The video in this ARTefact could be shown synchronously behind the glass painting and is different to AR videos. A disadvantage of this glass/video method is the requirement for inventive framing and display methods.

Figure 96

IKBSoD - Shinkyuu Art Model
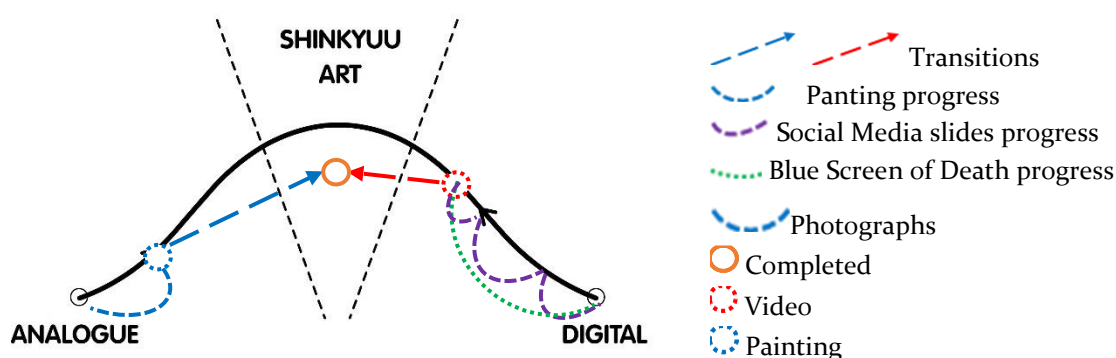
Note. The *Social Media* and *Blue Screen of Death* lines merge to create *Video*.

IKBSoD uses a paint inspired by IKB created by artist Yves Klein. Whilst creating this ARTefact I researched Klein deeper and found myself questioning his motives as an artist. A journal entry dated 13/12/19 of the *2019 Journal* p. 228 says,

> I started to question why he used women as "living brushes" for his artwork. There are arguments for and against this online. There is even an interview with one of the women who modelled for him, and although she said she felt empowered and it wasn't at all anti-feminist etc, I still personally feel like it was all under the male gaze. The model suggested that he had used male models before but we don't hear about this . . . now I know the paint is RIDICULOUS to wash off. They would have had to bathed in acetone—something that is not recommended to be in for long periods of time. It is used to remove shellac nail polish etc. If they were very quickly washed in acetone and

then rinsed in water, maybe it would have been ok... but I still find it to be quite
controversial. . . . I'm not [Klein] though, and so the artwork I decided to create was of
my time, my generation, my being. I'm not Jarman either, which is why I struggled so
much with the idea of creating with this colour. Jarman was dying of AIDS and so was
everyone around him. Blue was a sad, morbid colour. I [cannot] recreate his pain and
his suffering as I am [privileged]. . . . When I thought of death though, and how
symbolically blue has been used to represent death (usually in dull, darker colours) I
thought of the Blue Screen of Death, which is usually bright in colour (and is now even
cyan). It refers to a Windows computer forcing itself to close programs and terminate.
Sometimes it can mean a simple restart, sometimes it's more serious, but in any case, it
is usually always frustrating . . .

These thoughts showcase some of the turmoil I felt when creating *IKBSoD*. It may have
eventuated into a light-hearted, dark humour approach; however, its inspiration came from
minor occurring themes of feminism in addition to challenging notions of "political
correctness". Many of the background comments written into the animation, are from direct
experiences I have come across online, or have personally seen. The intermittent shutting
down of the computer/video through a Blue Screen of Death provides a moment of pause.

ARTefact Configuration and the Engagement with Research Questions

At time of writing, the exhibition was not yet installed. It is a vehicle for presenting the
ARTefacts outside of the exegesis and is not the artefact itself. It is plausible and reasonable to
expect certain displays to change during exhibition. The intention behind each ARTefact for
exhibition is recorded here. There are twenty-six representations and groups of Shinkyuu
Artworks to be displayed—twelve studies and fourteen finals. The studies hold as much
purpose as the finals, showcasing the progress and practice of Shinkyuu Art, and contributing
new knowledge to the field of fusion art. Furthering this knowledge, the research questions
are answered in the following section.

Research Question 1: By Creating Shinkyuu Art, What Is Revealed Through the Process of Fusing Analogue and Computer-generated Art?

Experimental Knowledge

By creating Shinkyuu Artwork based on my initial definition, I have developed a visual catalogue showcasing what Shinkyuu Art can look like. The experimental nature of the ARTefacts provide an original contribution to knowledge in understanding Shinkyuu Art practice. Although not all ARTefacts were experimental, many of the ARTefacts stemmed from different analogue and computer-generated fusion processes, with many newly created or yet to be inscribed. Consequently, my studies and tests were often experimental and explorative, yet it is through experimentation that Shinkyuu Art comes to exist (see Appendix B and Appendix T). The capacity for various media to be combined as required when creating fusion artwork, is large. Now these studies and tests are completed, the same mistakes can be avoided, and the methods refined or altered. In some cases, the experiments also provided new knowledge on pigments (see *Fade*, p. 128; and *Scurvy Weed in the Rain,* p. 177). Further research can be made from those leads (read more in *Conclusion*, p. 214). As demonstrated by the *ARTefacts* section (see page 132), many old and new media were successfully combined to create Shinkyuu Art. There are benefits and limitations to these choices, although the combinations of media possible are limitless. The ARTefacts confirm Shinkyuu Art could be created without pre-planning, yet the artworks that were most successful, employed Shinkyuu Art practice imperatively.

The experimental nature of the ARTefacts suits a conception presented by Donald Brook (2011) that "experimental art is not one sort of art but the only sort of art" (p. 1). He continues to explain experimental art is a tautology, and

> [i]f art is encountered in a work of art this is a matter of accident: such encounters are not, and cannot be, a predictable consequence of the purposeful deployment of familiar memes by the maker of the work in which it is found. (p.1)

Indeed, this is true of this doctoral research where ARTefact results were at times unintentional and unexpected, with both circumstances noted by Brook (2012) regarding experimental art. Although this is not to say the ARTefacts are experimental art only, as Brook

(2012) specifies "'experimental art' does not describe a distinctive sort of art, contrasting with other sorts of art" (p. 4). The ARTefacts were both experimental and planned, yet ultimately Shinkyuu Art. Rolling Jr (2013) realised that "experiments and exploration" can serve "as either a prompt or a cue for engaging with new particulars in similar fashion" (p. 26), as demonstrated by the Shinkyuu ARTefacts of this doctoral research.

The process of creating Shinkyuu Art is non-linear. The ARTefacts show numerous *Shinkyuu Art Models* with back-and-forth steps across the model. Many of these steps are transitions across media. Shinkyuu Art was effective when a middle ground could be found between those media. Such methods included AR and data-bending. Any future media with shinkyuu or new/old applications would be beneficial to Shinkyuu Art in future. In particular, AR was often implemented with the ARTefacts, as an acceptable way to combine analogue and computer-generated work. It features in five works: *Scurvy Weed in the Rain* (p. 177); *Dayflower: Water* series for the *Water Press* and *Illustration* (p. 152), *Moonfae (final)* (p. 157), *My Hair is Dayflower printed on Dayflower Paper* series for *Drips* and *Drops* (p. 168), and *My Hair is Dayflower on Dayflower Paper on Prussian Blue (Cyanotype)* (p. 172). AR is another way of bridging digital blues to analogue, other than video, photography, and projections. AR soundscapes could also be considered. Although the focus of the doctorate was on the visual arts, sound was included in some of the ARTefacts with video and AR footage. This doctorate recognised AR as an acceptable method for Shinkyuu Art.

Discovering Shinkyuu Art "Culture"

Although this doctorate looks at Shinkyuu Art from a practice-based research culture (see also page 22), it does not address whether it is High or Low Art/Culture due to its complicated nature and scope beyond this doctoral research. As an autoethnography, the research focuses on describing and showing what Shinkyuu Art culture could be from this practice-based lens. It is a singular view and lens on Shinkyuu Art creation. To suggest the work is High or Low Culture is irrelevant. I cannot, however, forgo mentioning that the irrelevance of culture is partly due to my own choice for it to be so. I purposefully chose not to analyse if something is High or Low Art—because to do so, as Frow (1995) puts it, would be "Othering" and segregation of the work I create, and a questioning of the tools that are available to me as a Shinkyuu Artist. It is additionally, unnecessary when creating Shinkyuu Art. To create Shinkyuu Art involving a combination of new and old, means to use all methods regardless of cultural status and implications.

The High/Low status was omitted prior to writing the exegesis. As an artist who uses both digital and traditional media, I found that I rarely defined my work as High/Low Art. Throughout my journals, I found no doubts as to whether what I was creating was art or not—only that I was concerned about how others may interpret it, and whether or not I would succeed in defining my art. There is no mention of Fine Art or High Art in the *2017 Pilot Journal*, "Fine Artists" were mentioned in the *2018 Journal*, however as a statement of what others were calling themselves. "Popular" in terms to Popular Art, is mentioned in the *2020 Journal*, as an acknowledgement to the existence of Pop Idols. These mentions do not define Shinkyuu Art as either High or Low culture. Shinkyuu Art is simply a medium and practice that has been examined in this autoethnography.

In hindsight, I realised I resonated with Tracey Emin's words from the 2014 *BBC Newsnight* interview, because she said art *is* art if it is done with conviction and the right reasons. This belief was unyielding throughout ARTefact creation, and I believe will not yield, as I do not attempt to define the ARTefacts as High or Low—although others may do. These words echo Davies' (2015) art definition, and confirms Shinkyuu Art, is art. Davies (2015) does not mention cultural value as being imperious to the art (see page 20). There is a blurred line—a lack of a divide—between High and Low Art/Culture within the ARTefacts, and the journals do not highlight High/Low division. That becomes a statement confirming research imperatives. My Shinkyuu Art process revealed I did not consider cultural divide when creating or choosing materials for use. Some materials were chosen based on rarity, cost, or name (such as IKB or Lapis Lazuli), although they were freely mixed with other materials regardless of status. This doctorate reveals a new way of creating art, and indeed, of describing art, without a High/Low divide. As highlighted by my journals, I am not any of the artists I am influenced by—I am my own person, of my own time that exists right now, of a culture that is right now. The ARTefacts I created reflect some of this (see *ARTefacts,* pp. 160, 183, and 186), and show what Shinkyuu Arts culture could be, through my practice-based lens.

Differences from Tradigital Art

After analysing the ARTefacts there is clarity on the differences between Shinkyuu Art and Tradigital Art (see also Appendix X and Appendix I). The first consideration is through using old and new media. The definitions for Tradigital articulate traditional and digital elements are required—as a medium, concept or process. In Shinkyuu Art, the media chosen are simply 'old' and 'new'. For a medium to be traditional, it must be embedded in society and be of considerable age. For a medium to be digital, it must be computer-generated. Traditional can

also mean computer-generated, such as traditional 2D digital animation. Shinkyuu Art simplifies the media to old and new. In this, any method that is analogue or computer-generated, or simply old or new, can be applied. Compared to Tradigital art, Shinkyuu Art is timeless—it withstands age and evolves with the world.

Another main difference between Shinkyuu Art and Tradigital Art, is seen in ARTefacts *My Hair is Dayflower on Dayflower Paper against the Sun (Studies)* (p. 162). Although the works contain both digital and analogue elements, the digital origins were forgotten as I spent time working on its analogue elements. Some of the ARTefacts feel and appear more Tradigital than Shinkyuu Art, conceivably due to the progression and/or time between the initial digital work (new), and the next analogue stages (old). New blended into the old. It became possible to forget there had been a digital element. I surmise the same would happen the other way around—analogue into digital, old into new.

To be considered, is whether the original medium used should remain visible, and if the artwork can be presented as Shinkyuu Art if it is not visible. If an artwork is created, in for example analogue, and then overladen with digital techniques, processes and skills, it not only has a majority quantity of one medium, but it is also influenced by the time spent within each medium. This development is a key defining difference between Tradigital and Shinkyuu Art.

Questions were formulated to deduct if a work is Shinkyuu Art. They are as follows:

1. Was the *intention* to create fusion or Shinkyuu Art?
2. Does the progress combine fusion media, processes, techniques, and methods in equilibrium?
3. Did the process transfer or reproduce between new and old media; or did it remain in one medium for an extended period?
4. If the answer to the previous was the latter, does it aesthetically appear as a fusion work?

The suggestion of texture, as previously outlined in the original definition, is not always maintained as confirmed by the ARTefacts. It has evolved into considering the overall appearance of an artwork as highlighted by point 4 above. If the answer to any of the determining questions above is "no", it is plausible the work is not Shinkyuu Art and could instead be defined as Tradigital or otherwise. When following the above guide, *My Hair is Dayflower on Dayflower Paper* (p. 165) for example, follows the process through to question 4, and is Shinkyuu Art due to its appearance. *My Hair is Dayflower on Dayflower Paper on*

Transparencies on the other hand (p. 167), would fall short on the same question as it does not appear as a fusion artwork despite answering "yes" to all previous points. These differences from Tradigital art, place Shinkyuu Art within the lexicon of arts culture as an original contribution to knowledge.

Research Question 2: How Does the Practice and Creation of Contemporary Shinkyuu Art Create New Knowledge?

Achievability

I reflected on practice and creation in *Entry Date 3/10/18* of my *2018 Journal*, p. 3:

> If these processes were not recorded, would they eventually be found out? Possibly, yes. But here, there is a record for it. I think of the book by Cennino Cennini, where it is recorded numerous techniques that may have remained missing or forgotten in history, otherwise. Perhaps what is created in this work, and others, will contribute to a future understanding of something we do not know yet. I think of this quote and what I wrote in the Masters doc: 'The artist picks up the message of cultural and technological challenge decades before its transforming impact occurs' [sic] (George Fifield, as cited in Schminke, Krause, & Lhotka, 2004, p. 152) . . . It was through creatively bringing together different known methods, that I was able to come up with a new style.

These thoughts remain relevant. As I created different processes for Shinkyuu Art, I found myself wondering if someone else had already done it, and if so, had they published it somewhere for public use that I had not discovered. A pre-existing record of a process is valuable if it is available for use. I began to assume certain processes were unavailable to me (or that I was unable to find it) and would often start artworks without further in-depth research. Sometimes, I would later find documentation was available—such was the case in my *2019 Journal* (entry date *04-02-2019*, pp. 63-64), where if I had thought to research specific key terms for natural indigo paint earlier, I would have found it possible to purchase natural indigo paint formulated without a dye vat.

However, the new methods I created that do not currently have documentation available, are new knowledge to be employed by other artists and/or researchers. These methods are my

own interpretation, which extends and confirms current knowledge. The journals provide my methods for each artefact, which are repeatable by other artists or usable as knowledge in other disciplines (see example in Appendix T). Prior to this doctorate, this knowledge did not exist to the same extent. The discarded experiments and mistakes made are also of benefit. This knowledge is foresight. Often throughout my journals I wished to have known earlier about certain situations. The specific word "hindsight" and the wish for this knowledge, was mentioned thirty-nine times throughout all journals (not including mentions of hindsight without the word). I also appreciated receiving foresight, such as storing aobanigami in the freezer (Sasaki & Webber, 2002). Thus, I presume to believe foresight would be appreciated by others. By completing this doctorate, new information and opportunities for foresight and further research are made available.

The practice and creation of Shinkyuu Art was vital. Without physically creating the artworks, I would only be able to speculate whether my combination of traditional and digital media was possible. I based many art studies on prior knowledge, however others stemmed from estimating outcomes and exploration without knowing the result. The experimental play and creation of studies was important in developing Shinkyuu Art and an in-depth understanding of its process. The new knowledge obtained from studio practice of art, allowed preconceived ideas to be realised into final artworks and ARTefacts. Discarded experiments can be reapproached, either by myself or others, and improved upon or altered to fit different scenarios. Further creation of Shinkyuu Art from previously incomplete studies, is supplementary understanding and knowledge.

This in-depth understanding of Shinkyuu Art changed my interpretation of the animated film *Loving Vincent*. I had mentioned this film in my journals, yet it was not until after nearing completion of my exegesis that I realised the film could be defined as Shinkyuu Art, or at the very least Tradigital. Initially when I saw *Loving Vincent*, it was a traditional animation, albeit with painted textures. Through additional information about its process, I realised the creators relied on digital technology to accomplish it (CBS News, 2017). Not only were actors filmed and backgrounds digitally composed, but the filmed imagery was projected onto canvases as an outline to be coloured. Arguably, many of these technologies had once been non-digital, however they have all transferred into digital realm. The visual outlook of the film, once composed, is entirely traditional painting, yet digital tools were required to bring it together. The compositing of real people into the paintings, brings about a sense of the "uncanny valley". However, according to the director Welchman, the intention of the

animation was to ensure the "authenticity" of painting, which computers cannot recreate (CBS News, 2017, para. 12). The animation aimed for a more traditional/analogue appearance, and this intention means it can only be defined as Tradigital Art, not Shinkyuu. Alternatively, an animation like *Klaus*—where they actively wanted something recognisably 3D whilst still created in 2D—could be categorised as Shinkyuu Art in terms of their intention (see page 18). These thoughts are only possible due to my knowledge in both Tradigital Art and now Shinkyuu Art. The information from this exegesis could inform other works in the same manner and provide knowledge which contributes to the existing literature gap.

Education

The knowledge created in this doctorate may be employed in education. Through creating artefacts there is understanding that can be applied to creating within a mixed media classroom. Some teachers such as Tricia Fuglestad (2019), already utilise "Transdigital" processes in their classroom. Technology use is increasing within classrooms. The Australian Curriculum, Assessment and Reporting Authority (ACARA) showcase examples of many cross-discipline classes and tasks. Art and science benefit from "interdisciplinary exchanges" (Milroy, Wegener, et al., 2015; Barclay & Gifford, 2018, p. 184). The ARTefacts show it is possible to create artworks of fusion nature. These could be created within a classroom, with adaptation. Creative problem-solving is required when using new methods. Sometimes, this is a choice by an artist or an educator, and other times it is from a lack of access to certain resources, or for multimodal experiences (see Appendix Y, Appendix B and Appendix Z). Adult lessons in hybrid classrooms are not unheard of, given there were Tradigital classes available in the Philippines (Hernando-Malipot, 2009). Certainly, these classes could be extended to other places worldwide, where mixed media exists.

From the Covid-19 events of 2020, educators became more creative with engaging and collaborating with students whilst distance learning during the pandemic (Brennan, 2020; Coleman, 2020; Schaenzle, 2020). Many of these classes became hybrid classrooms. Some educators found that lacking resources meant changing their content entirely. As a part-time teacher, I found these suggestions certainly to be accurate in my own classroom. There is area for improvement with technology when involving fusion classrooms. Dance, music, and other studio practice classes require certain features—such as minimal time delays and simultaneous multiple sound projections—the extent of which is difficult to achieve online (Schaenzle, 2020; Timson, 2020). This doctorate could be a starting point for recognition of fusion work as its own discipline.

Critique, Curating and Gallery

The creation of contemporary Shinkyuu Art brings it into existence and provides a new way of developing and presenting mixed media art. Critics and curators of art can gain a better understanding of fusion media through this doctorate. Through understanding Shinkyuu Art, they also gain knowledge on how to curate and critique it. Within the gallery space, it is not the first time that digital technology has been introduced. As mentioned in the literature review, digital technology can be a way to repaint and refresh degrading artwork without touching the original painting; or, to project digital imagery over damaged sculptures, providing a non-intrusive way to see the work as it once was. Future museums and gallery spaces may become hybrid. Augmented reality experiences are available in art galleries (Barclay, 2017). Virtual museums exist, such as the first Virtual Online Museum of Art (VOMA) (Semple, 2020). "Photogrammetry" techniques have proven they can reformulate artworks into digital 3D models, that are separate from the physical artefacts, and can "be shared electronically, printed or used in interactive presentations . . . without the inherent risks of physically sending the valuable type specimen on loan" (Milroy, Rozefelds, et al., 2015, p. 8). This doctorate provides ways in which Shinkyuu Art pieces may be presented in a gallery setting, as proposed by the ARTefacts, and demonstrated at the exhibition.

Another variable to consider is how an artwork is labelled in the gallery setting. An artwork that uses both traditional and digital processes is often described as mixed media. This inquiry offers Shinkyuu Art as an alternative term, to describe fusion artwork in not only a personal, but also a public setting such as the art gallery. The doctorate also reintroduces Tradigital Art in the literature review. The information outlined in this doctorate can provide curators with options in which to present fusion work.

The Naming of a Work

The ARTefacts highlight that Shinkyuu Art itself, like Tradigital Art, can be varied. There are numerous process and technique combinations available, with diverse or minor distinctions. Some commonly known art methods had existing names, such as cyanotype. Where methods lacked names, I created a vocabulary for them, such as Water Press (see Appendix P). This word emerged from the journals, through many revisions before settling on Water Press. The name relates to the act of "pressing" or stamping with water. I relate to David Hockney's term, joiners, in this situation (Melia, 1995).

It was comforting to form names for the work I created. Rather than labelling a work as, for example: "mixed media fusion Cyanotype with AR and a made-up process called Water Press", I could instead say it was Shinkyuu Art and clarify only if required. I recall having the same initial impression with the term Tradigital over a decade ago—it was wonderful to know it existed. Miller (1998) found the same reason for naming Tradigital—to help define its process. In the literature review for blue, it was revealed certain communities were unable to comprehend a colour without a name for it (Geiger, 1868/1880; Roberson et al., 2006). By providing a name for Shinkyuu Art, I too, in principle, came to understand Shinkyuu Art practice. The naming highlighted its existence. Although I do not discuss blue in relation to names here, I do later on .

The creation of Shinkyuu Art revealed how important it was to have this name in play. I also ask myself now, why I do not continue using the term Tradigital for Shinkyuu Art practice? As mentioned by Biryukova et al (2017), Tradigital can be considered sufficient in most cases. However, the more I researched the literature, the more I found it lacked credible sources or reliable definition. The word itself is a portmanteau, so it is unsurprising to find it used in numerous settings. Creating the Shinkyuu ARTefacts, and actively practicing Shinkyuu Art within the studio setting, confirmed to me that Shinkyuu Art was still appropriate for the fusion work I create. Tradigital, also, remains in my vocabulary, although only for simple fusion or hybrid artwork. Indeed, Shinkyuu Art did not replace Tradigital in all cases, it complements it.

My awareness of Shinkyuu Art stemmed from creating and reflecting upon it as an artist-researcher. Educator Tricia Fuglestad (2019) chose the term Transdigital, for the same reason that Tradigital did not match her requirements. Having Shinkyuu Art as my goal, gave guidelines and a linking theme for the ARTefacts created. It is an original contribution to knowledge, providing a definition that others may use, and a framework for Shinkyuu Art to be created with. The suffusion of blue in the ARTefacts is discussed in the next section.

Research Question 3: What is the Potential of Blue as a Platform and Frame to Produce Fusion Art?

Influence of Blue

Blue was found to be an effective frame for producing Shinkyuu Art. There were variables that influenced artefact creation. Blue pigment is difficult to find naturally, and often created synthetically to achieve brighter, more vivid, and lasting colours. It is also accurate that digital blue—blue seen on a digital screen, is accessible, and its colour is only limited by the technology which continues to improve. However, the replication of this digital blue on an analogue dimension such as print, is hindered by the blue pigments that are available and useable. Likewise, physical pigment is not fully representable by digital replications, although a general digital colour can be prescribed to it (see Appendix AA). There was, however, a sincere attempt to immerse blue throughout the ARTefacts.

The following breakdown of information lists observations procured from both the journals and ARTefacts, in relation to the colour blue as a frame for producing Shinkyuu Art. There are six areas of influence that the colour blue has on an artwork and artist, and four areas of crossover limitations and benefits, making a total of ten sections. New knowledge is obtained outlining how blue pigments, binding media, canvases, light, analogue processes, digital processes, and colours that are not blue, influenced the ARTefacts. Commonalities and differences between analogue and digital media are highlighted and the influence of blue on the ARTefacts and Shinkyuu Art practice is presented.

1. **Blue Pigment**

Blue pigment could be purchased at different price tags, and rare blues often meant high prices. The choice of pigment was consequently limited to available finances and budgets, which affected the artefacts created. The sheer quantity of available blue pigments also influenced this choice. Although blue is rare in nature, there are many options for blue pigments today. To use every single blue pigment available would require more time, money, and further research. At the same time, the rarer or more costly a blue, the more interest I had towards engaging with it. Some blues were chosen based on their rarity, and some on notability (see Appendix BB). Simultaneously, a blue with historical significance, increased my awareness towards it (see *Blue Colourant History,* p. 79). The more vivid a blue, the more I

correlated it to beauty; sometimes resulting in personal choices when selecting blue pigments for artefacts (see Appendix Y, Appendix CC, and Appendix R).

Some rare blues were intentionally excluded due to their unfeasibility as an art pigment (see *Blue Colourant History,* p. 79), or if it were unadaptable in the intended Shinkyuu Artwork (see *Yes or No? (Study),* p. 175). The density or opacity of a blue pigment; or how much was mixed into a binder or carrier; or how many layers were applied; and its texture (see Appendix DD entry *2020 Journal 14/01/20, p.16*), also effected the tone and shade of the various blues used for artefacts. Some pigments and binder mediums that were used had a scent—this was sometimes noticeable and may have unconsciously influenced the creation process of some artworks. An entry dated *21-10-18 to 22-10-18* from the *2018 Journal* iterates "the herby smell was noticeable the entire time I worked with the [dayflower] paper" (p.57). Additionally, some pigments could alter the attributes of a paint (see *IKBSoD,* p. 186), and the chemical differences of pigments and their individual properties are more apparent in these cases (see IKBSoD, p. 186; and Appendix V entry *2019 Journal 31/12/2019, pp.315-316*).

2. The Binding Medium for Blue

Certain pigments required binders to be useable (see Appendix V). As I am inexperienced with oil paints, I chose water-based binders. However, some pigments pale in acrylic and work best in oils which accentuate their vibrancy. This truth is also discussed by Coles (2018). Experiments using unknown binders such as water-based acrylic-resins were conducted. Drawing mediums such as crayons and inks were used, however, oil pastels were not—an oversight, likely due to my predominant purchase of pigment in powder form. Some pigments—such as plant-based ones—required no binder, and instead used a carrier (such as Asiatic Dayflower and Scurvy Weed). The ease of utilising "watercolour" paints in addition to the gap in the literature on these pigments, contributed to why they featured heavily in the ARTefacts. The binding medium, including water, also changed the appearance and texture of blues and how they were used (see Appendix EE, and Appendix E, and Appendix B).

3. The "Canvas" used for Blue

Some paints adhered better to certain surfaces, in terms to both quality and aesthetics. Various surfaces were employed as a canvas, including screens, projectors, cotton, paper, transparency film, and glass. The different surfaces on these canvases changed how a blue colour appeared or could be used (see Appendix DD). Some blues were more effective on a digital screen than on an analogue surface, with benefits including precise colour tones and

controlled lighting (see Appendix Z). Texture on physical surfaces affected colour tones due to shadows from raised areas, and different pigment opacities (see Appendix Y and Appendix T). On screen, a digital colour was precise, however on a physical canvas, the colour varied based on its application and binding medium (see previous 2. *The Binding Medium for Blue*, and Appendix EE).

4. The Light upon Blue

The journals and artefacts show lighting changed how a blue colour was seen. Different lighting was necessary—such as backlighting, UV lights, and monitor screens—to portray certain blues or convey vibrancy, for individual ARTefacts. The effect of ambient lighting or light reflection, also shaped how some of the artworks were created, framed, and displayed (see Appendix R). The addition of physical lights to certain artwork displays, allows for physical interaction to occur between specific ARTefacts and participants.

5. Digital Canvas (Program/Apps) for Blue

A digital file was not always compatible across programs/apps, meaning reproducing a blue colour in a different program was occasionally required (see Appendix FF). Blues could, however, be quickly identified across digital programs using a colour code if the source were also digital (see Appendix AA). Creating a tonal gradation within a digital space—something that can occur naturally in physical realms—was still limited and insufficient in certain programs/digital canvases (see Appendix GG). Due to the inability of certain digital files to be cross-platform, some artworks required multiple programs/apps and workarounds with these issues—not all of which were effective. The quality of image was dictated by the capabilities of the digital technology, with large file sizes influencing results and requiring compromise (see Appendix FF) (see also Barclay, 2017, regarding sound).

6. Analogue to Digital Blue (Limitations)

There were limitations in converting blue from analogue to digital and vice versa (see Appendix X). The blue in a digital photograph or scan, was limited by specific lighting conditions and a single capture, whereas physical pigment could be seen in multiple different lights and showcase different light qualities such as sheen, matte, or luminescence (see Appendix HH, Appendix II, Appendix CC). Blue in video was limited by the camera quality and range, which can only focus on a specific depth of field (mimicking the human eye) (see Appendix JJ, Appendix DD, Appendix R). Furthermore, digital footage removes certain physical senses such as the touch and smell of pigment. The HEX code was often employed as

a consistent digital representation of colour, although it was an imperfect model. HEX codes are vulnerable to the aforementioned limitations, and different colour gamuts between screen and analogue (see Appendix AA).

7. Digital to Analogue Blue (Limitations)

It was not possible to print the exact blue as seen on a screen onto paper, as screens were often backlit and consequently had a different light quality compared to a print. Prints were influenced by ink type and quality, and the print machine itself. The colour that was replicated to print, printed differently depending on the surface it printed upon. If all these factors were highly controlled it may have been possible to obtain an accurate print colour; however, the final product would still be limited by the blue pigment used and its properties (see Appendix I, Appendix Z). Digital colours have a different colour range compared to physical pigments. Pigment transferred from digital into light—such as a projection or similar—allowed a replication of the colour although it was altered by the light from the projector and surface it projected onto (see Appendix F, Appendix X, Appendix R). Likewise, a colour sampled from a photograph or scan, was not precise as it was limited by some of the previous points. For both digital and analogue, the colour was also limited by quality of technology (see Appendix HH, Appendix II, Appendix R).

8. Analogue to Digital Blue (Benefits)

There were benefits in transferring blue across analogue to digital and vice versa. Doing so allowed the capture of what a blue colour presented as, despite it being singular in its lighting, tone, and transparency (see Appendix JJ, Appendix HH). Photographing or scanning a file to digital format, was a permanent documented record of the image (Brown & Sorensen, 2009). It could also be documented prior to any alterations or framing for exhibition (see Appendix W). Moments in time were recorded that can never be reproduced otherwise in real life, especially for blues of ephemeral quality (Appendix JJ; and *Scurvy Weed in the Rain*, p. 177). Digital programs allowed colours to be edited multiple times without waste or destroying originals (see Appendix G, Appendix M, Appendix GG) (and Brown & Sorensen, 2009; Connor, 2016; Everts, 2016). The HEX code was indeed, a proven, digital, international representation of a colour, despite its singular output (see Appendix AA), and the quality of technology. Analogue media were "not subject to the color-gamut limitations inherent in digital printing" (Schminke et al., 2004, p. 56), hence it was possible to mimic and recreate a digital blue, to an extent. Although this is of course, influenced by the pigment itself (see previous section *1. Blue Pigment*).

9. Digital to Analogue Blue (Benefits)

Though limited by printer abilities and possible changes from its precise colour, transferring a digital blue onto a physical canvas allowed it to be seen on a surface other than screen, whilst also bringing a physical, tactile feature (see Appendix Y; *Moonfae (Study),* p. 155; and *Moonfae (Final),* p. 157). Some of the colour changes that occurred from transferring digital blue to an analogue realm, opened options of creativity for artworks to experiment within (see Appendix Y). Blue projected as light, although altered, sometimes appeared more vivid or evanescent and highlighted colours, making the blue appear more beautiful to me (see *1. Blue Pigment*, p. 199; Appendix R entry date *2019 Journal Between 19/11/2019 to 02/12/2019, p.235*). These benefits were engaged in the ARTefact results.

10. Colours Not Blue

Although blue was the theme of the works, other colours were also used (see Appendix N). These were found to create particular effects. Contrasting colours often highlighted each other. Complementary effects were confirmed as a beneficial art theory during art practice. The noticeable absence of blue, within the theme of blue, also emphasised and highlighted the fact blue was missing. Contrasts were also utilised, particularly in red and blue artworks. Lastly, although still blue, there were variances between blues that leaned more towards green or purple hues, or those that were dark or light in tone. These differences were also mentioned in the literature review. All the colours of the rainbow were utilised in the ARTefacts, despite there being a focus on the colour blue. Such colour variations influenced the appearance of resulting ARTefacts.

The Potential of Blue

Although the goal of the ARTefacts is to create Shinkyuu Art, sometimes the theme of blue would dictate what the artwork would be. As natural blue pigment is rare, there was a heavier focus on using them, which is noticeable in the journals and in the works for exhibition (see page 132). Certain pigments also lent themselves to being used or highlighted in particular ways within Shinkyuu Art, due to their properties or availability. Consequently, some results were not always achieved based on initial ideas and I was required to work around the pigment. Sometimes this meant work that was more analogue or digital on the *Shinkyuu Art Model* spectrum (see Figure 3, p. 26). I recall a previous suggestion by business Team SI, who specified having a plan for blending media is beneficial (Whitley, 2018). That is certainly

accurate for creating Shinkyuu Art. Having an in-advance plan for both blue and Shinkyuu Art generally provided satisfactory results.

In general, the ARTefacts benefited greatly from the colour blue as a framework. No other colour would be an acceptable alternative for some of the ARTefacts here. These artworks were inspired by specific blue pigments. Additionally, blue is known to be a primary colour in modern education, visual arts, print, and online. Blue is commonly seen in the modern world, although historically it is rare in the natural pigment world. When considering the common colours seen on digital screens, this for me, is blue. Digital screen blue, partnered with rare natural pigments, is an opposite of sorts, that works through an "opposites attract" effect. Blue symbolism itself is full of opposites (see *Psychology.,* p. 76). By combining media, the best features of both could be highlighted and used to benefit the colour blue.

Some of the first works developed were *Names* and *Bluetiful* (pp. 133 and 135)*.* Both were influenced by the act of naming colours (see previous *The Naming of a Work,* p. 197, and later *The Names of Blues,* p. 210). The name itself influenced how the ARTefacts emerged. As a frame, blue influenced my choice of scene for the paintings. A conscious effort was made to depict imagery that represented either symbolically or realistically, the colour blue. In *Names* this meant a blue sky and water scene was chosen. In *Bluetiful*, it is a snow scene and symbolically links blue with ice and cold. The material of wax pastels for *Bluetiful* was a textural choice, and due to pigment YInMn not being accessible to me at the time. The textural scenes were transferred onto a digital screen for animation, which also instantly flattened the drawings and changed the blues depicted. This physicality will be re-introduced by placing paper drawings nearby the screen at exhibition. Preferably, the installation also includes a transparent film with blue crayon markings that can be overlaid on the screen as a physical fixture separate from, but glazing, the animation. If it were not for YInMn pigment, this ARTefact would not exist. The colour initiated the artwork, and then allowed the textural elements to take over.

Both ARTefacts *Billie* and *IKBSoD* (see pp. 183 and 186) partnered their unique digital colour code with their counterpart physical pigment. Using both analogue and digital colour simultaneously highlighted similarities and differences between them, including problems from paint surfaces and binders as specified in the previous section, *Influence of Blue* (p. 199). As blue was the first manufactured pigment colour in history, creating an ARTefact showcasing it with the newest blue invented made the completion of these two ARTefacts

gratifying—old with new: Shinkyuu. *Billie* took some of the longest time to develop. It references holiness and worship as mentioned in the literature. Due to this history, the concept for the artwork had always existed, but was unformulated until the end of ARTefact creation. A pop-icon was chosen to represent a new kind of deity. Quality pigments remain employed—one of the oldest manufactured blue pigments, Lapis Lazuli, with the newest, YInMn Blue, and blue silver-leaf. As a finishing touch, the digital codes of these blues shine through the glass, fusing physical pigments with computer-generated ones. *Billie* benefited greatly from blue as a framework for fusion artwork. Using a monitor screen behind glass allowed images to display simultaneously with animated imagery. *IKBSoD* combines digital and physical blues and references the popularity of blue in some social media platforms. The symbolic link between dark blue and death is showcased through the Blue Screen of Death and blue skull (see *Psychology*. p. 76, and *IKBSoD* p. 186). *IKBSoD* is purposefully more than appearances. The animated comments in the background urge viewers to look deeper, despite the confrontational topics. Without blue as a frame, this concept would not have eventuated.

Eggs Incubating in Nest (Final) and *(Study)* (see pp. 149 and 148), showcase natural analogue objects alongside manufactured ones. When the eggs morph to the colour blue, it creates a link between the other collected blue objects. The heat lamp, other than a source of light directing attention to the nest, is also connected to the act of incubating eggs to hatch, so feathers were included. These feathers relate to other birds of blue, such as blue eggs from robins and bowerbird nests. The broken shells were originally a shipping accident, though also an example of creativity in chaos (see Appendix B). Without blue linking these elements, this specific Shinkyuu Artwork may not have eventuated. The journals show the process for this artwork developed with time, rather than stemming from an already existing or pre-planned idea. It is due to the frame of blue that this artwork emerged.

Significantly, blue is used to represent new life in the *Eggs Incubating in Nest* pieces, similar to fertility in certain symbolism. This reference was not a conscious link yet shows how blue as a framework influenced the outcome. The installation is predominantly analogue, but digital recordings, such as photographs, are needed to capture-in-time the blue colour of the shells and arranged items before they shift or fade. *Eggs Incubating in Nest (Study)* offers the sense of touch—which the final does not—by allowing viewers to pick up eggs to warm them to change colour. This fleeting moment is gone forever unless it is recorded. Although both these ARTefacts are not Shinkyuu Art by themselves, they make a certain statement towards the

benefit of recording devices, alongside being able to see and touch the physical, tangible nature of the installation.

Some pigments required different carriers or binders. With dayflower pigment, it is traditionally carried on paper (aobanigami or Dayflower Paper), and is soluble and transferable in water. Aobanigami is different to watercolour paints which are set in a water-soluble binder. The nature of blue commelinin pigment in dayflower, and Scurvy Weed, allowed for innovation utilising the pigment's unique properties, and creating artworks that would not be preconceived otherwise. All Asiatic Dayflower and Scurvy Weed ARTefacts stemmed from this characteristic. These pieces focus on water as a medium. Digital technology records and captures the ephemeral nature of the pigment. This glimpse was paramount in such works as the *Dayflower: Water* series (p. 152) where the colour of fading pigment is overlaid across the canvases in AR; the *My Hair is Dayflower printed on Dayflower Paper* triptych (p. 168) where Dayflower Paper was drenched in water, never again returning to its original state but its movements were recorded; and *Scurvy Weed in the Rain* (p. 177) where the painting was recorded in stages while it rained. This unique blue pigment created a valuable framework for producing ARTefacts using fusion methods. By combining physical pigments with digital replications, I was able to both "highlight their temporary existence" (Wonder Machines, 2020, para. 4), and delay their eventual departure.

Dayflower Paper as an object was also inspiration and influence, as the paper could be backlit to illuminate the pigment. Works involving transparencies and backlighting include: *My Hair is Dayflower on Dayflower Paper against the Sun (Studies)* (p. 161), *My Hair is Dayflower on Dayflower Paper* (p. 165), and *My Hair is Dayflower on Dayflower Paper on Transparencies* (p. 167). Some of these ARTefacts were either backlit and then photographed or relied on installed light sources. The similarities and differences between the works are displayed. There was a sense of "meta" when naming these specific dayflower artworks, as they referred unto themselves and re-used the same materials. This duplication of a digital image reminds me of the nature of print for repetition, which I employed. By using a laser printer, the transparency films could adhere ink to their slippery surface.

These transparency prints work as photo negatives I could use for cyanotype prints. As cyanotypes use Prussian Blue pigment, and the negative is a digital print, I could focus on other requirements for creating Shinkyuu Art, like texture. It allowed me to freely experiment with canvases, such as glitter surfaces (see *My Hair is Dayflower on Dayflower Paper on*

Prussian Blue (Cyanotype), My Hair is Dayflower as Cyanotype on White Glitter (Study), and *Yes or No? (Study)* from page 172). The artworks involving cyanotype are examples of blue inspiring art with unique results—it was not always Shinkyuu Art, with some work being more Tradigital or visual arts. *Yes or No?* (Study) (p. 175), experimented with glitter surfaces and is an example of the sentiment "too much blue" mentioned earlier (see *Light.*, p. 75). Cyanotype was exposed onto blue glitter to create a blue-on-blue result and echoes the original cyanotype blueprints which were entirely blue. Although blue is predominant in this ARTefact, it is not Shinkyuu Art as it does not combine any digital or new elements. The physical nature of the glitter and print method makes *Yes and No?* analogue. It has been included for exhibition to showcase the similarities and differences between it and other works.

The intention behind *Yes or No?* was to create using the framework of blue and consider Shinkyuu Art after. In this example, blue was an effective way to create work, but an ineffective way to create Shinkyuu Art, despite trials. I considered it from various angles, but further steps taken detracted value from the work as a statement piece. Given more time, there is a possibility for it to evolve into Shinkyuu Art, however I wanted to retain a level of physical interaction that could not be achieved by adding elements. Spectators are required to move themselves around the work to see it from different angles, with the text "CAN YOU SEE" barely visible at some viewpoints. The amount of blue engaged could be seen as excessive—the cyanotype retained the glitter aspect of its canvas and is barely visible on the medium blue background. However, this worked in the artwork's favour where discovering the text is a facet. Without the theme of blue, and an intention to showcase analogue work using hybrid blues, the ARTefact would not have eventuated.

The blues in Scurvy Weed ARTefacts *Growing Weed* (p. 182) and *Drying Weed* (p. 179), are an opposite of sorts. One is a fresh plant on display to show locals a plant they may not have come across before. The other has preserved pigment and dried plant on a canvas. The plants in *Growing Weed* may not be in bloom depending on the season, although the background video shows some of the flowers (in progress) that did bloom from the same plant. This duet display allows physical and digital captures to be seen consecutively. *Drying Weed* also has a duet display using AR. The blue flowers are shown on canvas and as a digital time-lapse.

The knowledge displayed in this doctorate could be applied in other artworks or inform other disciplines in novel ways. It is through experimentation that a pigment like Egyptian Blue can

be considered as an alternative for fingerprint dusting (Errington, Lawson, Lewis, & Smith, 2016), and roof cooling (Berdahl et al., 2018). Egyptian Blue was not utilised in the ARTefacts; however, it can be for future artworks. It is due to using blue as a frame, that allowed development of new knowledge. My experimentation with Scurvy Weed was conceived due to blue as a frame, and the literature review. These Scurvy Weed artworks are the first of their kind. The doctorate reveals more information on commelinin's characteristics as both an art material and pigment.

A method for combining digital blues with real-life blues is through AR with transparency options. However, the AR platform I employed lacked suitable transparency effects. *Red vs Blue / Double vs Standards* (Final) (p. 160), addressed transparency issues through the use of colour slides and red/blue anaglyph 3D glasses. As confirmed in the literature review, red and blue have a competitive history, and are known as complementing opposites (see page 103). This concept was consciously applied to the ARTefact *Red vs Blue.* A commonplace issue with anaglyph images is that the red does not blend as well as the blue (see Appendix Z). Since the theme of the ARTefacts is blue, this blending imperfection was considered inconsequential, and allows the blue to be highlighted. Both red and blue are primary colours, and the play between the two created an ARTefact that accentuated their place as primaries. The blue is cyan, also known as one of the primary inks used for print. Cyan also forms the name for cyanotypes which use Prussian Blue. The links between the different yet similar shades of blue creates a cohesive foundation of ARTefacts.

Other works that are not Shinkyuu Art, however remain chosen for exhibition, are *Indigo Waves (Study) #1-3* and *Indigo Waves (Study #4)* (p. 142). These pieces showcase non-fusion art methods of indigo dye used for painting. As the pigment here is physical, the resulting artwork was analogue in approach. There was no pre-planning towards Shinkyuu Art—only the intention to experiment. Although the studies are interesting the blue here did not formulate any ideas for hybridity. In this case, blue was an ineffective frame for producing Shinkyuu Art. However, these waves were my first tests, and once satisfied, I was able to formulate an alternative idea, which is used in *Indigo Dip triptych (Study)* and *Indigo Dip triptych (Final)* (p. 145).

These works introduced Glitch-Art or data-bending to natural indigo dye. This colour was transferred in digital scans, processed for glitches, and then projected as a replication. It is a visual representation of how colour changes through delivery methods. Both the physical,

original dye is presented, alongside the digital and projected version. "Glitch" is not a digital only aspect although the name stems from there—it can refer to natural flaws in analogue processes. However, producing art with the purpose of "corrupting" through digital programs, is truly a digital concept (Fisher, 2019). *Indigo Dip* shows complementary contrasts, of the naturalness of analogue flaws, with digital glitches. Another colour could have been implemented for this work, however the naturalness of indigo—a powerful colour in history and still popular today—next to its projected digital blue colour, entails significance.

The projections in *Indigo Dip triptych (Final)* act as another source of blue colour separate from the original painting. It explores the idea of complementary analogue and digital blues— although different sources, they are still complementary. The same can also be said for *Billie* and *IKBSoD* (pp. 183 and 186). The backlight behind the painted glass changes the way the blues are seen. When the light is off the pigments are darker, with the lights on the pigments showcase a level of translucence, elevating the blues.

Another form of luminescence is found in light-emitting pigments. At the time *Moonfae (Study)* was created (see pp. 155-157), I had limited access to phosphorescent pigments. It was not possible to change the colour of light being emitted from these green phosphorescent pigments through regular colour mixing. *Moonfae (Final)* also revealed luminescent pigments only glow a specific colour, even when mixed with other luminescent pigments (see Appendix KK). *Moonfae* is based off a fictional character who holds a green-blue light in their hands. Phosphorescent pigments reminded me of this description and brought attention to a digital sketch I had created prior to this doctorate. This digital image transferred onto a physical canvas formed a base for mixed media art. In this example, blue was the impetus to evolve it into Shinkyuu Art. How both paintings look under different lighting is fleeting, and only documentable through photography or video. As such, AR was used to form a bridge between the physical canvas and how it appears under preferred light settings.

The colour blue has demonstrated itself to be a varied and valuable frame for producing both fusion and non- fusion artwork alike. As a theme for Shinkyuu Art, it influenced many areas of the artworks—how they were conceptualised and developed, became fusion artworks (or remain as either traditional or digital), and were completed. Blue alone, was also found to be a deterrent for creating fusion artwork when there was no pre-conceived idea. Blue did not mean Shinkyuu Art would emerge—it was necessary to plan the artworks with fusion in mind. Shinkyuu Art is the medium and conduit for the ARTefacts. However, blue was the frame—

where the ideas and subject matter come from. This original contribution to knowledge is paramount.

Colour Theory

The new knowledge obtained from the journals about blue directly relates to colour theory. The colour theory may not be as scientific or precise as other research, but it is a form of research that is rarely found in the current literature, and often overlooked. Inside knowledge of how colour is used in artworks has value, especially when uncommonly recognised. Over the course of a few years, blue has been the predominant theme of the ARTefacts. Some artists may choose to use a singular theme for a set of works, like Picasso. In addition, my doctorate also documented my thoughts, feelings and choices made based on the theme, which may be unlike other artists who are not researchers. Although it is a personal affiliation, the knowledge still adds to psychological and colour theory.

In reference to Appendix M, from watching film *Loving Vincent*, I accepted that blue was a part of the film and not an emphasis. I did not focus on it as much as I initially presumed. In day-to-day life during the doctorate, I recalled noticing blue objects more often around me, with frequency, yet during the film I did not. I wonder if this were due to expectations— knowing there would be blue, or an acceptance that blue was integrated in the paintings? Regardless of the answer, this doctorate has confirmed that creating and writing about the colour blue, is neither overwhelming nor "too much" as wondered by Fowler (2014). Indeed, I may have a boundless love for the colour. It is also possible I will tire of it eventually. However, I firmly believe there is still more to learn about it, and there is much joy in that.

The Names of Blues

Some of the ARTefacts have an underlining theme of "names". Both *Names* (p. 133) and *Bluetiful* (p. 135) were created in the early stages of the doctorate, whereas *Billie* (p. 183) and *IKBSoD* (p. 186) were completed towards the end. This moment arcs to Victoria Finlay (2002) and what was written in Appendix E—there is fascination and connection to the name of a colour, more than its numbers and HEX codes. The realisation of the importance of names began early in the doctorate, and resulted in the collage piece aptly named, *Names*. The unexhibited study *Ink (Study)* (p. 126) was also based on the names of inks. As Appendix E specifies:

I did not realise how important the names would be, until I was given a vast number of
different colours to use. The one thing I used to filter through all of them, was the
name . . . even if the colour did not match the print very well. (see also Appendix EE)

The time distance between the completion of the first and last "names" ARTefacts, allowed for
supplementary processing of what the names of colours meant to me. While creating *Billie*
and *IKBSoD*, although I employed HEX codes, I still sought the original analogue names for
those colours. I had no intention of choosing a random HEX code—and all the intention to
base the code off the existing, analogue colour. The realisation of the two glass artworks seen
in the ARTefacts, I believe, would not have eventuated without determination to match the
analogue colour with its digital code. In addition, I named an ARTefact "*IKBSoD*" using a play
on words of names—IKB for "International Klein Blue", the name of the blue I used, and
"BSoD" from the well-known initials for "Blue Screen of Death", a recognisable computer
screen display. All the ARTefacts were given a name for recognisability, cataloguing and
ownership. This naming protocol relates to my empathy and connection to colour—to create
value. I have more appreciation knowing where a colour has originated than towards a
number without details. The keyword here is details—I did find a number code interesting if it
also had a history.

Bluetiful was initially created based on the name of the crayon colour, yet my disappointment
in finding it contained no genuine YInMn blue (as it was synthetic) was exponential. It
highlighted that not only are names important to me, but they also require authenticity.
Experimenting with other crayons and their colours also revealed this (see Appendix EE). It
was consequent of these experiences that *Billie* was created (see page 183)— a statement
towards pop-music artists, idolism, and a comparison of the newest available blue in the world
(ensuring this time I acquired genuine YInMn) next to one of the oldest manufactured blues,
Lapis Lazuli. The artwork is named after a popular music artist, primarily to reference modern
day icons while utilising traditional religious iconography. The painting also relies on the
name to be both obscure and recognisable—the image has no defining features that would,
without the name, otherwise associate with the musician. The naming is a quick way of
knowing—of understanding and pinpointing what a colour is. Often, I would use the Japanese
term "aobana" or "aigami" throughout my journals, rather than the slightly longer "dayflower
pigment" or "aobanigami". The purchase of Dayflower Paper was only achievable through
searching a specific Japanese term. This realisation also arcs back to my thoughts on the

naming of Shinkyuu Art (see previous page 197). Although not initially planned, the naming is fundamental to the original contribution to knowledge.

In its essence, Shinkyuu Art is fusion artwork—it is fusion of old techniques, methods, and tools, with new techniques, methods and tools, in any order, ratio, and variation of media. How old or new is not specified or inhibiting—only that it is old enough, or new enough, and it will evolve and adapt with society as it changes, making Shinkyuu Art essentially timeless. There will always be some form of a divide between new and old media. However, Shinkyuu Artwork is fusion art, that is neither old or new, or traditional or digital, as it is both at the same time. Some Shinkyuu Artwork intently showcase distinctions between analogue and digital media within one artwork. Some Shinkyuu Artwork provides viewers with the sense of touch, to help assimilate textures. However, it has been demonstrated that not all Shinkyuu Artworks created for this doctorate did this. The one common feature between all works, was the intent to create fusion artworks in the name of Shinkyuu Art. There was also the frame of blue, although this varied in terms to presentation—light blues, dark blues, and non-blues, were all considered, yet formed a cohesive theme. It was the naming of the media that was used, and the naming of the specific blue pigments, and then combining these elements through the name of Shinkyuu Art, that dictated many of the ARTefacts and highlighted the importance of names.

Impact of Research

It is stipulated that the following disciplines and paradigms are impacted by this doctorate:

1. Visual arts practice.
2. Understanding of twenty-first century fusion work combining traditional and digital media.
3. Current and future artists creating Shinkyuu Artworks.
4. Contemporary art critique and criticism.
5. Future arts learning in education and schools.
6. Art collectors, art galleries and museums, and cataloguing.
7. Colour theorists and colour psychologists.
8. Understanding of pigment characteristics in Science.

In conclusion, the artefacts sometimes involved scientific experiments, amalgamated with artistic creativity, thinking, and execution. By creating Shinkyuu Art, the process revealed clear differences and similarities between Shinkyuu and Tradigital artworks—Shinkyuu Art is definitively different from Tradigital. Their similarities do not outweigh their differences, highlighting that Shinkyuu Art is required in the field of fusion art. Practicing Shinkyuu Art revealed new pigment characteristics, material properties, and confirmed new, inventive methods for creating fusion art. The combination of techniques, methods, and materials possible for use in Shinkyuu Art is vast, and often experimental. By having a theme of blue linking all the artefacts, it allowed Shinkyuu Art to develop naturally from its materials. This valuable theme allowed artefacts to freely explore different medium combinations, whilst containing them through a single colour.

Conclusion

"Elodin pointed down the street. "What color is that boy's shirt?"

"Blue."

"What do you mean by blue? Describe it."

I struggled for a moment, failed. "So blue is a name?"

"It is a word. Words are pale shadows of forgotten names. As names have power, words have power. Words can light fires in the minds of men. Words can wring tears from the hardest hearts. There are seven words that will make a person love you. There are ten words that will break a strong man's will. But a word is nothing but a painting of a fire. A name is the fire itself."

My head was swimming by this point. "I still don't understand."

He laid a hand on my shoulder. "Using words to talk of words is like using a pencil to draw a picture of itself, on itself. Impossible. Confusing. Frustrating." He lifted his hands high above his head as if stretching for the sky. "But there are other ways to understanding!" he shouted, laughing like a child. He threw both arms to the cloudless arch of sky above us, still laughing. "Look!" he shouted tilting his head back. "Blue! Blue! Blue!"

—Patrick Rothfuss, *The Name of the Wind*, 2007

The Name of the Wind, by Patrick Rothfuss, is fiction, summoning concepts of fantasy. However, some of Elodin's ideology can be pertained to this doctorate. Trying to configure an approach—to explain an approach—can be perplexing. This doctorate instead uses multi-modal methods—to obtain a deeper understanding of Shinkyuu Art creation and practice, the visual artefacts are partnered with reflexive written communication. *From Tradigital to Shinkyuu Artwork* is a specific mode of doctoral research. This mode of doctorate deploys practice-based research methods through artefact creation, to enable the discovery of a new arts practice. It is composed of a series of artefacts and an exegesis. The existing literature surrounding art that fuses analogue and computer-generated media is lacking. Some current terminology offered towards twenty-first century fusion art, is the word Tradigital. Tradigital is a portmanteau of the word "traditional" with "digital", used to describe when both are present. However, its unknown origin, sporadic use among numerous fields, and variance in definitions, demonstrates disjuncture in the term's application. Throughout the time it took to complete this doctorate, the available literature had not expanded in any meaningful way.

My original contribution to knowledge is the presentation of a new defined practice called Shinkyuu Art, through artefacts revealing new knowledge and demonstrating its appearance and creation through the colour blue. Shinkyuu is a Japanese term used to describe situations where both "old" and "new" emerge concurrently. For example, antiques are both old in age, and new for an owner who has just purchased them. In art, this could be fusion art, that fuses older, more traditional, or analogue methods, with newer, more technologic or computer-generated methods. Shinkyuu Art is a new description for this medium combining and essentially fusing two or more separate methods of visual arts—traditional or analogue, and digital, technologic, or computer-generated. This practice exists as both an extension and replacement for some instances of Tradigital Art. Although Tradigital Art is similar to Shinkyuu Art, Shinkyuu Art has been crafted especially for arts practice.

It was integral that Shinkyuu Art was experienced firsthand through artefact creation and practice itself, given the artefacts are the first of its kind. The exhibition provides a visual presentation of Shinkyuu Art in various contexts. Due to these variations, the colour blue is engaged to thematically link the artefacts and provide a source of inspiration. As practice-based research, the artefacts firstly visually present the results of practicing Shinkyuu Art, and secondly provide answers to the research questions set in this exegesis through reflection and supplementary documentation from journals. The intention behind the artefacts and their process is of greater substance than the artefacts' aesthetics.

There are flaws in the body of work presented. Although the intention was to create Shinkyuu Artworks only, some Tradigital, hybrid, and non-fusion works are presented alongside them. Such works are an indication of the difficulty faced in creating Shinkyuu Art without pre-existing literature. In some circumstances the experimental process led to an unforeseen result given there was no other literature—grey or otherwise—or artistic examples to base an outcome prediction on. If the result was not predicted prior to starting an artwork, the work's direction was ultimately dictated by circumstances and ideas that might later occur. Another case of Shinkyuu Art being hindered was when the theme of blue—or the pigment itself—was used to drive the process resulting in artworks that were not Shinkyuu Art. These non-fusion artworks are still presented because they provide a comparison between fusion and non-fusion works.

To categorise works that were and were not Shinkyuu Art, the "ARTefacts" (artwork artefacts), were compared against the initial definition presented, which was introduced as: "work that

combines "new and old" techniques, methods and tools [...] Shinkyuu Art focuses on making certain differences and similarities of traditional and digital media distinctly visible within an artwork through intent" (p. 19). Artefacts were placed and scaled on a *Shinkyuu Art Model* (Figure 2), and if otherwise complicated, deliberated through regulation questions (see page 192). Placing each ARTefact on an adapted *Shinkyuu Art Model* provided information about each artwork's medium use, process, and degree to which it was Shinkyuu Art. The process of creating the ARTefacts was documented through journals using both photographs and writing, with essential passages highlighted in the Appendices.

It was found that Shinkyuu Art requires the act of intention to be created, which is another original contribution to knowledge. By providing this definition of Shinkyuu Art and publishing it, it is an offering to other creatives, who may deem the name useful for their own artworks and discipline. It is only through the artefacts, practice-based research, and a written exegesis, that this contribution to knowledge was made. The ARTefacts and exegesis also provide understanding of how the colour blue is used from a creative standpoint. Although colour theory is often researched within the sciences, it is not in terms of individual psychology, as mentioned by Daren Fowler (2014). A creative approach allows for a broadening of existing literature.

Shinkyuu Art positions itself within arts practice, as a component of contemporary mixed media practice, alongside Tradigital Art. The ARTefacts, journals, and exegesis provide a comprehensive definition of Shinkyuu Art practice. As a result, some of the literature gap surrounding fusion art has been filled. The research questions were formulated iteratively with the literature review. As the literature was investigated, the questions were framed and reshaped to respond to ARTefacts being created. As practice-based research, the research questions directly correlate to the ARTefacts. Each question was considered individually in terms of artefact and practice. The ARTefacts were then fashioned to answer these questions and exercise different areas of practice. Reflexive reflection developed responses to each ARTefact against the questions in an iterative feedback loop. The research questions are: *By creating Shinkyuu Art, what is revealed through the process of fusing analogue and computer-generated art? How does the practice and creation of contemporary Shinkyuu Art create new knowledge? What is the potential of blue as a platform and frame to produce fusion art?* The answer to each question is parted into three sections within the exegesis. Although they are separated for the purposes of the document, the research question's answers are interrelated.

The answers to each question are confirmed in this conclusion. First, the process for creating Shinkyuu Art was revealed to be like Tradigital Art, as they both combine digital and traditional methods. There are however differences that may not be easily recognisable without background knowledge and expertise within the fields of both analogue and digital arts. Some works are very apparently fusion art, while others take a subtler approach. Tradigital is often a blend, whereas Shinkyuu Art blends but also calls attention to distinction. Distinct methods include having separate digital and traditional components apparent in a singular work. Subtler approaches generally consist of hidden blends of media.

The process for Shinkyuu Art was experimental in nature, using predominantly new methods and processes. Not all of these methods resulted in complete Shinkyuu Art, with many newly created for this doctorate. Some of these methods were adapted from existing processes, such as flower pressing. Other methods did not appear to have established names, and as such had new names created, for instance the name "Water Press" for stamping pigment using water. It is important to note that the literature shows if there is no name for something, it is harder to comprehend or refer to it. Having a name for Shinkyuu Art highlights its existence and brings to attention its significance.

Although Shinkyuu Art may not be initially utilised by other practitioners, it was integral to the development of the ARTefacts that the process had a name by which to catalogue it. With new processes, an eventual name would always emerge—such was the case for Water Press; or a series of descriptive words where no name was clear—such as "drenched with water". Historically, this was the case for David Hockney and his photo collage technique called "joiners". Without a name, it was harder to convey and present the ARTefacts. As a researcher also practicing art, this is important. From a traditional art background, I began developing digital arts when it was later introduced. After missing the tactile nature of traditional work, I combined the two, and was informed it was known as Tradigital. Suddenly, Tradigital was within my vocabulary, bringing an ease to creating and explaining the work. When the research for Tradigital began however, I uncovered flaws in the literature and required another name. That name is Shinkyuu Art. Shinkyuu Art stems from this history of creating Tradigital Art, and realising that the literature did not support my understanding of the work I was and am now creating. It is different to Tradigital, and it is not just mixed media—it is Shinkyuu Art. Although this was not always clear when I began the doctorate, it is abundantly certain at its conclusion. Having a different term is of paramount importance. The name

Shinkyuu Art enabled ways of communicating, creating, and understanding the medium, as it emerged through research and artefacts.

The process of creating Shinkyuu Art discarded the High/Low art divide. This cultural divide was displaced and diverse methods and art styles were employed as appropriate. These areas included Alternate-Reality (AR) art, animation, dying, digital illustration and physical painting, data-bending, light projection, installation, and printmaking. It is noteworthy that this intentional overlook of cultural divide stems from my own cultural upbringing. Digital illustration was a developing art, and although now established, questions whether the High/Low art divide exists anymore. Neither high nor low were paramount in the creation of art in Shinkyuu Arts culture.

Secondly, the practice and creation of contemporary Shinkyuu Art created new knowledge— through the journal documentation—which provided steps for some new and revised procedures on creating fusion art. For example, the steps for Water Pressing, dry-pressing-flowers, and using invisible ink as a binder, are all detailed. It also provided insight into what a fusion classroom could look like if digital/traditional classrooms are to be implemented. Such knowledge of practice provides an understanding that arts critics, curators, and gallery owners can utilise when encountering fusion artwork. It was apparent that having a name for fusion arts practice—asserting Shinkyuu Art or otherwise—was paramount in wholly comprehending the practice itself. This concept would not have been revealed without studio practice and artefact creation as a part of research. Undoubtably, having a name describing this specific style of fusion artwork allowed for the ARTefacts and research to effectively take place within the lexicon of my own arts practice. A mix of media allowed digital technology to enhance or support analogue processes and vice versa. Digital techniques were found to be most adept at aiding more ephemeral analogue pieces, such as fading pigment. Conversely, digital replications represent only a small fraction of analogue images, hence combining digital with analogue elements provided a multi-sensory experience for both traditional and computer-generated imagery.

Thirdly, blue was found to be a valuable platform and frame to produce fusion art, in most circumstances. If blue could dominate an artwork, the specific practice of Shinkyuu Art would sometimes be an after-thought—no additional process could be achieved, causing some works to remain in the digital or traditional realm. When blue was implemented appropriately with Shinkyuu Art, the process could be innovative. Blue, uncommon in nature and common

digitally, provided a complementary contrast within the works—a "best of both worlds" scenario. Where blue was not included in one form of media, it would be in another way. Such methods dictated by blue include the glass works, flower-pressing and luminescent paintings. The pigments also influenced the works through dying methods, natural pigment creation, and symbolic representation.

Together, the exegesis builds on the ARTefacts where they could not always visually or clearly answer on their own. Visually, each ARTefact follows a certain process, with some representing individual facets of a shared concept. Other ARTefacts are presented alone or using slightly different shades of blue. These differences are not always apparent, and are aided by the naming of each work, or a following description during exhibition. The journals detail many of these differences but must be summarised reflexively in the exegesis to be comprehensive. The research questions link the written exegesis with the journals and ARTefacts, providing a description to complement the visual ARTefacts.

These arguments are founded in both the presented ARTefacts, and their extensive documentation throughout development. Each research question was reflexively queried against the journals and individual ARTefacts. Through this, it is undeniable that Shinkyuu Art, although similar to Tradigital Art, exists as its own specific practice fusing digital and traditional methods. There are a variety of new methods detailed that are not founded in other current literature on Tradigital Art. New knowledge was revealed through the creation of ARTefacts defining Shinkyuu Art. It establishes a new possibility in arts creation that has influence in other disciplines such as education and arts critique. New innovative methods originating from Shinkyuu Arts practice can be applied to other practices. This practice was both hindered and inspired by the colour theme of blue. Shinkyuu Art has been defined here as a new and existing arts practice, that I myself continue to use, much like David Hockney and his joiners method, or other artists with their definitive terminology. With further research and guidance, Shinkyuu Art may emerge into a natural practice within the arts community.

The key theorists of the exegesis are Stephen Davies for his definition on art; Bonny Lhotka, Dorothy Simpson Krause, and Judith Moncrief for Tradigital Art; Michel Pastoureau and Helen Varley for the colour blue; Linda Candy for practice-based research; and Carolyn Ellis and Arthur Bochner for autoethnography. Although key theorists in their field, the literature

in some of these areas was found to be lacking. As such, it was a requirement of this exegesis to also look at the grey literature.

Shinkyuu Art can correspond to Davies' (2015) definition for art. Shinkyuu Art demonstrates a high level of mixed media knowledge and creation; it emerges from many established art genres and mixed media; and the intention of Shinkyuu Art is to inherently pursue and create art. Shinkyuu Art represents art that combines new and old media, which has evolved from several existing artworlds such as visual arts and digital arts.

Although Moncrief is cited as being a pioneer for Tradigital Art, there was very limited written literature verifying this. Many of my sources stemmed from Lhotka and publications where the origins of the terms were discussed. However, Lhotka does not currently use the term on her own website to describe her work, making this one of the first indications that Tradigital Art has become a deficient term. Krause's definition for Tradigital is the clearest, although also seemingly no longer used. Jeffrey Katzenberg is also a theorist who popularised Tradigital for animation. The terminology surrounding Tradigital Animation differs from the visual arts. It is a seamless blend of 2D and 3D animation which can be made entirely digitally. Tradigital Art or Tradigital Fine Art can also be a blend, yet other times it is not entirely seamless. Both can contain textural elements. Tradigital is also employed in many other fields such as marketing and advertising. Overarchingly, something can be named Tradigital if it simply combines certain analogue or digital concepts and ideas—the key word being "idea", and not "medium". These definitions are undeniably diverse and at times convoluted.

There is no key theorist on Shinkyuu Art itself. Although certain literature mentions the word "shinkyuu", it is insufficient. It was also beyond the scope of this doctorate to explore all Japanese literature on shinkyuu, requiring translations. Bin Yee Ang has been cited for their research pertaining to animation, although it was not specifically regarding Shinkyuu Art. As there are no key theorists on Shinkyuu Art, examples of artworks that could be defined as such, were referenced instead. Indeed, this doctorate pioneers Shinkyuu Art as a terminology for explicit fusion art.

Pastoureau provides a comprehensive publication on the colour blue which is heavily referenced in the exegesis. It was integral to this exegesis that such a huge publication, specific to the colour blue, be included. Helen Varley's publication on colour was also significant to this doctoral research. Both publications by Pastoureau (2000/2001) and Varley (1980) were dated, and thus revisiting them to analyse was important. Victoria Finlay has also written a

few chapters on the colour blue in her own personal research book, as has David Coles with a comprehensive breakdown on pigments with colour-maker knowledge. Cennino Cennini's publication *The Book of the Art* (1437/1899) is also referenced for pigment information and methods. It is a classic publication with many techniques still used today. Shiho Sasaki and Pauline Webber were also key writers for their 2002 publication pertaining to Asiatic Dayflower pigment. Literature on pigment colour history is under-researched.

Some of these theorists are not without critique. Pastoureau made personal and generalised statements among his references, although a mistranslation of the original French publication may be the cause of this. Finlay's publication is a personal research account, however doing so highlighted an importance of names and a discourse often not reflected upon, which was beneficial to this doctorate. Coles' recount, although heavily researched, relies on common knowledge details that have been disputed.

The exegesis contributes to this existing literature on the colour blue in art. When the expertise is used together, it provides a larger understanding of literature furthering comprehension towards the colour blue. The contribution to knowledge from this doctorate is significant to the lexicon of arts research and arts practice. It presents literature that has not been interrogated thoroughly in academic research, specifically Tradigital Art and blue in arts practice. It is also a demonstration of practice-based research. This doctorate presents a new definition, method, and technique for fusion art called Shinkyuu Art. Alongside mixed media, hybrid media, Tra-Digital, Tradigital, Tradigital Art, Tradigital Fine Art, Tradigitalism, and Transdigital, Shinkyuu Art removes itself from the Traditional-Digital framework, and reinvents itself alongside analogue/digital, new/old procedures.

The ARTefacts emerge from a singular viewpoint of one artist, meaning the sample size of this doctoral research is small. It is not representative nor repeatable. However, through the methods selected, it is transparent, rigorous, considered, and scholarly. The exegesis ensures that this research will be documented in history. Future work stemming from this doctorate comprises of an extension of current ARTefacts and continuing unfinished studies, refining the methods and processes used, and choosing another colour theme. There are many avenues to explore from the original scholarship I have conducted here.

It is entirely possible that an extrapolated instruction manual—on recreating the methods and processes used in creating this doctorate's ARTefacts—be detailed. Many of the steps have been provided in the journals, but these processes could be reorganised. Supplementary arts

practice will help concrete and clarify certain instructions, and increase the sample size of the research. The instructions could be broadly applied to any creative work, rather than to a singular artwork. This instruction manual would contribute to the literature that is missing in fusion art practice. The only previous manual that this exegesis found focusing on hybrid or fusion work was called *Digital Art Studio*, from 2004, and is inherently outdated by new technologies. It was not named Tradigital either, despite Tradigital artists being involved. A new art manual would be a beneficial future resource.

Alternative colour themes could be applied in creating another series of Shinkyuu Art. Blue as a frame for creating the original ARTefacts was valuable for inspiration and influence. The same techniques, methods and processes from these ARTefacts could be repeated using a different colour, to ascertain whether there is a similar pattern or distinct features. With different colour symbolism, the works may predictably convey different topics. It is clear that the history of a colour and its characteristics can, and often has, influenced the work created. Further research in colour theory and colour psychology areas could be engaged.

Individual ARTefacts can also be extended into new series. The doctorate ARTefacts presented provide a broad understanding of Shinkyuu Art practice, and as such, do not always focus solely on one specific style of art. With Shinkyuu Art practice established, new works can stem from a singular technique, to highlight its range, and expand the understanding of that select style. ARTefacts that would adapt well into a specific series include the glass and monitor display works of *IKBSoD* and *Billie*. These works have a very centrally balanced process between both digital and traditional components. They would be leading candidates for an extension and future work in this area. This series would focus on both the glass canvas and the monitor as two separates of the one symbiotic artwork. At this point in the doctorate, there is no combined name for this style of work, and continual exploration could reveal one, or expose a lack of a collective name.

Another area of focus for future research, is the involvement of Augmented-Reality (AR). The AR pieces were generally 2-Dimensional in presentation, but 3-Dimensional options could be explored, including more real-world space interactions. It was beyond the scope of the doctorate to delve deeply into spaces outside of 2D, however future work can be built upon this base. AR transparency also requires exploration with Shinkyuu Art—this method can blend digital objects with real-world ones, whilst showcasing distinct textural or visual elements from two or more separate media. Future AR work could additionally focus on

utilising sound and producing immersive environments, such as what is created by Leah Barclay, to create new tangible experiences with Shinkyuu Art.

Data-bending was a common occurrence in the ARTefacts. *Indigo Dip Triptych* in particular applies Glitch-Art imagery through the process of digital projection. Complications in production arose from having a double-sided presentation with digitally projected images for both sides. On a larger scale, such work could be made permanent fixtures rather than a temporary one that involves continual set up and formatting. The placement of images could be perfected and aligned to a single display. On the same note, a set-up with detailed measurements and instructions could be made to travel with such an ARTefact ensuring it is always correctly placed. *Indigo Dip Triptych*, although difficult, is a start towards future Glitch Shinkyuu Artworks.

There are numerous examples of specific ARTefacts and their processes that could be translated into separate series of work, with the aforementioned being the most prominent. Further areas of research include double-exposure images using red/blue anaglyph glasses, and revisiting computer printing as a method for Shinkyuu Art. The latter is based on the process being commonly employed in Tradigital Art methods, and questioned in terms of its place in Shinkyuu Art. The doctoral study portraying this is *Names* which was classified as more traditionally inclined, or Tradigital Art, than Shinkyuu Art. Like many of the ARTefacts that veered more towards a particular media, additional steps could be explored and added upon to shift the artefact's classification nearer to Shinkyuu Art.

The colour blue framed Shinkyuu Art creation in this doctorate. From here, certain blue pigments could be researched post-doctorate. This doctorate examined Scurvy Weed, a native Australian plant, as a pigment for some of the ARTefacts. Although scarce in quantity, it has the same properties for art as commelinin in the non-native Asiatic Dayflower. Scurvy Weed is an edible food source and bush tucker in indigenous Australian communities. It is unknown in the literature, if the plant's pigment or even the colour itself was utilised in Aboriginal or Torres Strait Islander cultures. New research would focus solely on Scurvy Weed as a paint pigment, and build, understand, and entreat history from our local indigenous communities.

Indigo and Asiatic Dayflower were used extensively in the ARTefacts. For this reason, it is acknowledged that a series from these specific pigments is less probable, however more artworks could eventuate. Animation has also been explored in-depth through previous works by the author, although, it could always be reexplored. Chiral liquid, luminescent pigment,

glitter and invisible inks, are non-blue themed materials that require further investigation. On the last suggestion, using an invisible ink as a binder with commelinin altered the ink's properties. This effect did not occur with other regular inks, but new studies with natural pigments are an opportunity to explore their interactions. It is possible the change only occurred with a specific brand of ink and/or pigment, however more research is required.

Unfinished studies can also be resumed to explore new tangents or continued in better circumstances. For example, the "Sun Exposure" study required a temperature, moisture and UV-light controlled studio-lab environment that was not available during this doctorate. The effect of After-Image was not completely explored, nor was 3D object printing. These ideas can be reexplored through revisiting, or adaptation by other artists, researchers, scientists, and colour theorists. Extensive exploration will improve practice and embed Shinkyuu Art in the arts practice lexicon.

With Shinkyuu Art established, this original contribution to knowledge of ARTefacts and exegesis provides a definition for Shinkyuu Art, and guidance for the practice of Shinkyuu Art. This definition has currency and mobility beyond the doctorate in the following areas: for other artists and their own use, for arts critique and the conveying of knowledge, in museums for cataloguing and analysing art eras, in education within hybrid and fusion classrooms, and possible links with colour theorists related to analysing colour psychology, and the sciences examining pigment properties. It was imperative that Shinkyuu Art practice be established before any other research be conducted through both visual ARTefacts and the written exegesis. Together they align to configure Shinkyuu Art. Artists can compare their own work to the ARTefacts presented and read in detail the definition and guiding questions to determine if their own work is suitable. Indeed, other artists may employ a Shinkyuu Art process to describe their practice. As previously mentioned, it is of principal import that a name and definition for Shinkyuu Art be provided to fulfill such a requirement. Some artists may seek a naming for their fusion work—a name which is offered here.

The introduction of Shinkyuu Art provides opportunities for arts criticism. The evaluation of artworks fusing traditional and digital means is generally associated with mixed media. There is an opportunity for such groups to expand their expertise on mixed media practice. The doctorate provides behind-the-scenes progress of various ARTefacts, which may have similarities with other artworks outside this research. Critics can use this information to correlate their knowledge and understanding of fusion oriented work, which has now

expanded due to this doctoral research. By enlarging existing knowledge, art criticism for such work becomes more specific. Notwithstanding, art critics do have their own set criteria for analysing artworks; this exegesis does not negate this but provides a possibility for expanding this set. If more Australian Shinkyuu Artists and artworks are assessed by art critics outside of this doctorate, a description for a Shinkyuu Art style specific to Australian arts culture could emerge.

Artworks that are exhibited in museums are usually categorised and described by name, artist, year and medium. In general, artworks from a fusion or hybrid origin are described as mixed media in South Australia. It is not improbable to suggest that some artwork, has in addition, been described at exhibitions as Tradigital in nature. It was certainly the case for Judith Moncrief and Bonny Lhotka in the USA, for the students of the Bachelor of Tradigital Fine Arts course in the Philippines, and the artists of the *Tradigital Survey* exhibition in Melbourne, Australia, as reviewed by Jane Button. Whether Shinkyuu Art will be employed in a gallery context is now an option. It may be catalogued within the museum industry—digital, physical, or social media. The Low/High divide of art is further challenged. Artworks that have not achieved museum status, are still artworks that may gather popularity on social media platforms with different criteria sets. Digital museums have also increased in presence as seen in Stuart Semple's creation of the first Virtual Online Museum of Art (VOMA). Digital alterations are employed in museums when physical restoration is not plausible. This concept can also be seen demonstrated by the *Indigo Dip Triptych (Final)* where Glitch-Art is applied to scans and not directly to the physical paintings.

Within formal educational structures, this doctorate poses questions for fusion classrooms. Not all classrooms are visual arts alone, or media arts alone. Outside of Tradigital classrooms, there exist crossovers between disciplines as demonstrated by The Australian Curriculum, Assessment and Reporting Authority (ACARA) in many of their cross-discipline examples— Media Arts and English, or Media Arts and Science, and so on, go hand in hand. This doctorate presents the opportunity for other fusion classrooms to develop. Not all Shinkyuu Art processes are suitable for early or middle year education, however it could certainly be employed in certain age groups, or with guidance from a professional with younger students as demonstrated by educator Tricia Fuglestad. I was able to adapt from a visual art to digital environment in my teenage years, and it is reasonable to suggest that younger persons who have grown up with technology for the majority of their lives, will also adopt well. It was very apparent during the Covid-19 pandemic, that many classes required adaptation for a digital

realm. Arguably, an individual fusion topic could and should be taught in the curriculum, one that recognises Tradigital, Shinkyuu, and digital/traditional mixed media practice as its own specialised field of work, as demonstrated in this doctorate. Shinkyuu Art can bridge between visual arts and media arts topics. As the future world of innovation in technology increases, it is probable that the education surrounding the disciplines will be expanded to include a fusion topic.

Other areas where this doctorate has currency and mobility are with colour theorists in psychology, and the sciences related to understanding pigment properties. Colour theorists may be interested in how the symbolism of blue was activated within the ARTefacts. Some ARTefacts display commonly used blue themes such as Lapis Lazuli for religious iconography and worship (e.g. *Billie)*, and dark blue for death (e.g. *IKBSoD*); some blues were employed literally—commelinin for documenting Scurvy Weed or Asiatic Dayflowers; and some were without any symbolic reference and displayed matter-of-factly—such as UV light reactive ARTefacts. Blue luminescent pigment was engaged in ARTefact *Moonfae (Final)*, to depict a midnight sky tinged with blue—a symbolic reference to blue skies. The colour-shifting heat-responsive chiral liquid used in *Eggs in Nest* and *Eggs Incubating in Nest* are linked with eggs through the idea of incubating heat lamps for lizards and birds, and ultimately by the increasing amount of blue-coloured rubbish found in the environment. Placing the objects together depicted a bowerbird scenario. It is through my own symbolic knowledge, that allowed such artworks to be created using the colour blue.

Scientists may be interested in the pigments activated in the doctorate. The progress working with these was documented, and there may be interest in these tests and studies outside of the studio lab. Scurvy Weed in particular, is detailed in this doctorate for the first time in written literature as a paint pigment. Its effects with an invisible ink were also journaled—despite being waterproof and "bulletproof", the ink unexpectedly travelled with the water-fugitive commelinin. UV light reveals tracks of invisible ink on the canvas where the commelinin had washed away in the ARTefact *Scurvy Weed in the Rain.* The pigment for both Scurvy Weed and Asiatic Dayflower respond similarly, with neither requiring a binder to be used.

Fresh Scurvy Weed flowers were preserved using an express flower-pressing method I named "Dry Pressing". Due to their fragility in water, traditional flower-pressing methods could not be employed and instead a clothes iron was required to quickly distribute heat. The nature of flower-pressing means that the colours will eventually fade from ARTefact *Drying Weed*,

although the photographs will retain their original appearance. The flowers presented in this ARTefact is documentation—of flowers in various shades of blue and purple—and a demonstration of the ability of this fauna to grow in Adelaide's climate.

Many binders were used with pigments—these include water-based acrylics, one-particle-thick adhesives, epoxy-resins, acrylic-resins, and gum-arabic. The acrylic-resin created by *Langridge* in particular, could be of particular interest in the sciences. Depending on the Moh's scale of a pigment, *Primal* resin showcased peculiar paint characteristics. With Ultra-Saturate Blue, or *Langridge's* International Klein Blue (IKB), the paint took on a matte sheen with a flat, minimal texture appearance. This quality is specific to IKB mixed with *Primal*, due to IKB's mineral hardness on the Moh's scale. Other pigments such as Lapis Lazuli, Prussian Blue and YInMn Blue, did not have the same result, appearing instead as textured, with a satin sheen.

Many pigments throughout the doctorate were put through series of tests and experimentation, either with specific media or processes. For example, indigo was used as both watercolour paint and dye; colour-mixing was attempted upon luminescent pigments; and invisible ink that should not have been transferrable, was manipulated. These experiments shaped the ARTefacts which are a contribution to knowledge. The knowledge it supplies has influence in numerous areas—visual arts practice, arts criticism, museum and galleries, education, colour psychology, and the sciences. The notion of the 'experiment' is often implemented in the sciences and rarely deployed effectively in the Humanities. Customarily, the experiment of novel art materials, media and similar are excluded. Artist-researchers often choose to create ARTefacts with familiar tools, usually from the artists' already existing background knowledge and visual literacies. These studies can look outward upon the final, visual aesthetic of an artefact/artwork, rather than inward—at the processes, tools and materials used. Unlike other art studies, the ARTefacts and exegesis here are developed through iterative exploration and experimentation, informed by the literature, and lack of. It looks at both unique and common blue pigments, and a new way of creating traditional/digital, old/new, analogue/computer—Shinkyuu Art.

From this doctorate, it is possible to see connections between research in the sciences and research in the art studio. Wilson (2018) has expressed "[t]here are similarities between the research undertaken by the artist in the studio and the scientist in the laboratory" (p. 77) in that some "artist researchers may use laboratory-like experiments and subject their inquiries

to the empirical cycle of hypothesis testing" (p. viii). Rolling Jr (2013) realised that "[m]aintaining a working hypothesis is akin to common practice within an artist's studio [...] In this way, theory is converted to practice while practice is converted to theory" (p.26). These comparisons are confirmed in this doctorate, where many processes were new and relied on experimental methods within practice-based research. Many ARTefacts went through various trial and error processes of combining materials and methods. A key difference between art and the sciences, as outlined by Wilson (2018) is that apart from supervisors to communicate with, the artist-researcher is alone in their work. Additionally, the journals are not as systematic as a scientist's logbook or notebook, yet at times it did subject some artworks to an empirical cycle of testing, creating more than one study. The laboratory is also a much more controlled environment than an artist's studio, and journaling may be less meticulous, as the focus is on documenting the "how" and other anecdotes, rather than exact reproducibility. Nonetheless, the art practice of this doctoral research was informed by iterative experimentation. Experimental art is as Brook (2012) says, "the only sort of art" that can occur as consequent of experimentation (p. 1).

The artwork artefact is but one component of arts practice. The ARTefacts here were fashioned from their process as documented in the journal, and the strive to answer the research questions. Rather than focusing on aesthetics, the ARTefact asks people to look at what is hidden and often not seen—to ask of the process and of its goal. In the same vein, Wilson (2018) suggests that "[t]he accessibility of art creates a powerful urge for those who view or hear it to express an opinion" and that the explanation of art in lay-terms may be due to this personal connection (p. 77). It is impossible to prevent subjectivity in the viewing of artwork or any text. However, it is possible to remind and uphold the author/artist, as a frame for readers, while also summoning research questions and their trajectories through outcomes and arguments. It was clear that a practice-based research model was paramount in obtaining the results needed for defining Shinkyuu Art and its relationship with blue. Although the Shinkyuu Art exhibited is varied, it suggests there are other themes and possible categories of fusion art within Shinkyuu Art. It also suggests blue influenced such a variation. There is still more to be discovered now that the arts practice for Shinkyuu Art has been established.

This doctorate offers a rethinking of the way fusion work can be created now and in future. It effects mixed media art within Australia and worldwide. By establishing Shinkyuu Art as a name offering, medium, and a practice, users have an option to label, categorise and guide work that fuses analogue and computer-generated art. It is a practice that I have effectively

portrayed here. It is a medium that can be presented with themes of colour, and undoubtably, other inspirations. It sits alongside terms such as mixed media, tradigital, or the more convoluted 'traditional and digital hybrid/fusion artwork'. Shinkyuu Art is complex, as the methods and tools engaged are in themselves, complex. Shinkyuu Art is specific to the arts and does not broaden to other areas. Shinkyuu Art is made for, and only for, the arts. Of course, shinkyuu itself is an already existing word in Japanese language and will be employed in other areas. However, Shinkyuu Art will not be confused in terms of its origins, like Tradigital Art. Instead, this doctorate syndicates Tradigital history and presents a new Shinkyuu Art context in practice, manifesting and managing this innovation through definition and presentation.

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Appendices

Appendix A

Digital Links to Journal Documents

To access the journals created for this doctorate, as a digital PDF, please view and download from each individual link:

[Removed for privacy. Please contact the author if you would like permissions.]

Appendix B

Entry Dates Specifying Creativity in Chaos

Note: Creative chaos, to paraphrase Shaun McNiff (2013), was often used and said throughout the journals. In this Appendix, I will quote, reference the journal document and page number, as a compiled whole, rather than individual single sentence Appendices. There is also no mention of "chaos" or "chaotic" in the Pilot journals.

2018 Journal

21/10/2018 to 22/10/2018, p.57:
The half-visible nature was not my original intention (I was just going to have the drawing and lines clearly on top of the paper with the texture showing through) but I enjoyed this surprise (chaotic creativeness, [...] that occurred.

31/10/2018, p.67:
Overall, I like the transfer, but it is quite temperamental and hard to control—all a part of it and creation in chaos.

22/11/2018 to 26/11/2018, p.80:
I would occasionally bump into the table or walking past would make the water move / wind, which would encourage the papers to move. I don't really think this is a problem with the final outcome, as the chaos is a part of what makes this interesting.

04/12/2018, p.111:
I used the spray bottle for this and used most of the ink sample. It was chaotic and messy but worked for what I wanted.

    [...]

    This liquid is not a blue ink. Unused in this instance. I decided to mix the inks with water, as I think the chaos and lack of control in using inks with water, is one of the interesting things about it. The dilution liquid is meant to dilute inks that do not mix well with water, to make it a lighter colour.

2019 Journal

01/01/2019, p.3:

Dayflower applied directly onto wet paper, both sides. The paper side in contact with the foam tray dries the palest (I think because the concentration of water there means more of the dayflower disperses? More time in water = less dayflower colour.) There is very much a lack of control here, which I do not like when I am trying to do something specific! But I also enjoy the chaos of random results. I wish the dayflower sections would have dried the way it appears here below, but I know dayflower doesn't work that way

Between 14/01/19 to 16/01/19

p.15

[...] I might as well dye the sheets and see what would happen.

This brought about some gorgeously chaotic and abstract arts that I was so much happier with, in terms to the intensity and vividness of the blue, and the texture that heaped up on the sheets.

[...] p.16

I then tried using the dye that was kept inside the house. I made a little "brush" that was bigger than what I had, since the ink goes on so transparently.
Unfortunately, the ink had gone from its blue colour to a greyer blue! This was a shame as I really enjoyed how the large brush created lines, and also imprinting it onto the canvas was enjoyable. Again, I liked the chaotic nature of it, and the ability to do really large transparent lines vs thinner ones on top with the normal brushes.

I also painted this flat to a table rather than using an easel, in an attempt to get the ink to pool where I wanted and to layer a bit more.

Here's what it looks like so far (right, I added the drops of ink on purpose). I painted it on its side, so turning it up vertically was even a surprise to me (again, chaos).

[...] p.21

I liked being able to control the placement of some of the falling of the sticks, while allowing it to be chaotic and do its own thing.

[...] p.27:

This first dip, with all of the chunks on it, is actually a favourite. I like how chaotic it is, and that dying the paper on a whim was more beautiful than using it as an ink because the colour could be more concentrated.

14/01/19, p.31:

So with the restrictions of scanners that I can use, I thought of doing glitch art to them.

[...]

This links shows tests of possible different effects, which I also did to an IKR image. The effects do not come out the same depending on settings and what is selected etc. In a way it is still chaotic like traditional pieces [in reference to Glitch Art].

31/01/19, p.35:

I like this because it is not just blue—it has really corrupted, and the blue has been 'taken apart' and is just all a mess of strange data. It is chaotic, and although my theme is blue, I think this is fascinating, because it is not blue. There are still sections that are blue, and they are still beautiful, but the other coloured sections add vibrancy and colour which I think emphasises the blue.

18/09/19, p.117:

I also enjoy (and at the same time dislike) the random splodge of yellow and red bottom left. It added itself onto this dye, although there is nothing there but white. Quite cool and random and art chaotic.

Between 19/12/2019 to 24/12/2019, p.312:

I finally received my eggs! But 1 of them came broken :(I decided I may as well use it, like as if something has hatched, but I would need to paint it differently.

2020 Journal

16/01/2020, p.28

The paler middle seemed to highlight the painting so I think that worked out. Once the glass is on top, it's actually harder to see one side being a different colour, so I think my "blending" idea worked out in the end.

Appendix C

In my pilot journal, I wrote about my emotions, process, thoughts, and pinpointed the words that appeared the most. By highlighting them I could see what was prominent, at least for the pilot. Although colour was not the most common theme, nor 'blue', this was likely because of my initial 'fear' to return to it. No other theme that I discussed, seemed to match the aim of my research. I felt like discussing 'body image' next to Shinkyuu Art, would be like "lopping" it on without care. Yes, it may provide a common theme, but it also looked at things I felt separate to the process and progress of Shinkyuu Art which I believe is important.

Returning to blue, means that my fascination with the colour is a larger part of the research. My prior literature research is still there to be finished. If the colour is a theme, does that also mean I need to reference certain thoughts? I would think that it was not necessarily for me to reference certain attributes and variables, as long as I back it up with my own thoughts and culture of why (e.g. the sky is blue) perhaps? My fascination for blue, never left.

By returning to blue, we can also now look at how digital and projected light blue, compares to traditional blue pigments and blue seen in nature. I recently found out that some blue things in nature, such as some butterfly wings, are only blue due to its biomechanical shape, and as such reflect the certain blue light only (which we see). If the wing is crushed or the shape filled with a liquid, the colour is lost. Is mother nature, technically, creating blue, like how technology, digital, looks at creating blue. Blue is a difficult pigment to create, and as such digital blue is more advanced at depicting colours.

I am sure I can reference all these statements… All in all, this means that my work will focus on the colour blue, on colour theory, and how it relates. For me, blue relates to Shinkyuu Art. Technologies of traditional and digital mix to create Shinkyuu Art. Digital blue and the creation of blue pigments allows for more blue [research and art]. Hmm. This is still a rather complex topic to discuss. I think perhaps there is room to play with digital computer blue, mixed with traditional pigment blue, to see what we can come up with. The reason why blue, is because it would seem that it might benefit the most from the combination because blue is a difficult pigment to create due to it not being much of it in nature as a pigment. This is akin to digital texture improving with traditional texture. I think they are better, as it provides a "best of both worlds" possibility. If you could have a digital art, projected onto

something that actually has the texture it is trying to portray, you automatically get an extra sensory to touch the object, heightening the experience, and hence the combination of traditional and digital.

Appendix D

Mentions of Recall used for Journaling

2019 Journal

21-01-19, p.33

I just wanted to add that although I am supposed to be ranting and writing while I create art, the process of actually doing both at the same time can be quite conflicting. I tend to make small notes, and then write up my journal after the fact I have finished parts of my artwork. For this reason, some of my work is actually already in the "reflecting" stage, as while I write I start to reflect at the same time. I found the act of writing while creating, to have thoughts and describe actions that are not important or no longer relevant. I suppose this is a bad thing—there could be something I am missing, that I think is irrelevant, but actually is.

Either way, it is what it is currently... Writing and Drawing uses two different brain functions, which is perhaps why I struggle with it, and also why the written exegesis with visual artefacts as two different models is effective—they are quite different (compared to creative writing).

And, to justify this a little bit, I suppose I "edit" while I write—something I already actively do anyway as it goes from my thoughts to paper. I just edit a little bit more when I think about it in hindsight. I think it may mean even more deeper reflections, later...

03-02-19, p.46

So, I've started this write up on the 8th! I struggle to write at the same time of doing things, and rely heavily on my brain to recall back memories and things I thought while in the process. The struggle, I believe, is due to time restraints, and needing to be constantly doing something else. Either way, I remember (or recall) something about using "recall" specifically for the journal. I believe that what I'm doing now isn't necessarily wrong... it is probably quite correct, but a concern would be if I forget something that happened and my recall is wrong, or perhaps has already reflected? Again, I don't think it is necessarily wrong, and from other sources it seems to be a perfectly reasonable thing to do.

Appendix E

The names of colours

Going back to what Victoria Finlay wrote—the names of colour has some significance to her, as it provides history, information that is interesting, and as such is considered important to her. I feel the same way as her. I think the history of a colour, makes it fascinating, and if that is connected/linked to its name, it is even more fascinating. When a colour is just numbers, like in digital hex codes (photoshop, website, etc) it seems colder, less personalised, and not linked to its history. As such, this contributes to knowledge in that it agrees with Finlay's suggestion that names have importance, through the creation of art. I did not realise how important the names would be, until I was given a vast number of different colours to use. The one thing I used to filter through all of them, was the name. It was easy for me, to say "ok, this sky name can go in the sky" even if the colour did not match the print very well. I would have preferred it to match more, as this is the perfectionist in me, however I also think an artist would use what they had—not all paints are perfect, not even when mixed, and not all artists can afford to buy every single colour on the market for their palette... but you can get something close to, or use what the impressionists did regarding colours side by side, to get "blended" results (I forget what it is called right this instance).

Reusing existing paint samples

I think this further contributes to knowledge in that when given paint samples with names, I chose the ones that would best suit the area due to its name (sea, or sky). The first image where it is just chunks of paint sample and a name, represents this. The colours do not match, which annoys me, but I still chose to use these over matching the colour, because the name is of prominent interest. This is particular to me and the lifestyle/culture/learning that I have.

Digital printing as an underpainting with Laser Printing

This same method seemed to be common with artists who did tradigital work Lhotka in particular. Golden I think is a tradigital artist but did not publish that Digital Art Studio book, so perhaps that is not what tradigital is? Lhotka no longer calls herself a tradigital artist. Either way, it seems like it would be a method used by tradigital artists, since I myself just did

it, but with laser printing instead of inkjet. I think that it is quite common, and perhaps boring now, compared to what I did with my animation films. This gives insight-- perhaps animation is more flexible for Shinkyuu Artwork? Moncrieff etc were not animators—they were Fine Artists. Is animation Fine Art? Why did I separate the animation definitions from the artist ones? I consider a frame of animation to be an artwork, so really, they could also be considered fine art—just take a frame out of an animation.

The idea was also to have both print and traditional medium visible. The paint samples on top gives it texture.

Again, texture is prominent for me at least. This contributes to research in that it seems I cannot let this factor go. It must have some kind of texture, for it to be interesting, and perhaps link in a sensory / physical / tangible way to traditional media (more interesting, more personal).

Both digital and traditional had to be visible (prominent) in this piece in terms to my Shinkyuu Art definition. As such there are parts left from the printed image. I feel like, this could have more digital stuff done to it—perhaps, a projected image over the waves to make it move. Why? Because then it fits the definition more—there is more digital here... the laser prints feel more "traditional" to me or perhaps now they are "old". Perhaps because they are on physical paper. This contributes to research in understanding how an artist like me can move on from technology, or interprets digital to physical copy artworks e.g. canvas prints.

Appendix F

This one shows how laser printing can be used as an underpainting in an experimental way (melted paint that didn't adhere to the stock paper). Relating it to *Digital Art Studio*, the final outcome does seem to have more traditional medium over it than digital. On the other hand, the original drawing was done digitally, and perhaps the blue background is enough? It was not simply a photograph. The reason why it has less digital, may be because of the fact that I am playing with light. This contributes in that it showcases a method to use glowing light pigments. Other artists have also used this pigment before, but may not have shown the progress, in relation to creating a Shinkyuu Artwork. This piece is reliant on being charged up by light, and as such I can control how the piece looks and make sure the light, she is holding is the brightest. This raises question for exhibition.

I could not control the light to be both bright and blue. What I can do, is edit the photograph taken to be bluer. I wonder if this goes alongside Tradigital Art too much… or if the fact I thought of it as shinkyuu Art, makes it more Shinkyuu. Perhaps it is in the intention… and by placing a name with it, I would be naming it as Shinkyuu. A projector with a beam of light exactly where it needs to be charged, may be something to consider. Or a blue light filter over the top of the image.

This also has contributed in that it is the first Shinkyuu Artwork using light pigments. All of these works would contribute being initial Shinkyuu Artworks.

Appendix G

Updated Entry Date 14-09-18, of *2018 Journal*, p.48

I am struggling to make this information about the Bamiyan Buddha sculptures to fit in my exegesis... They were destroyed but rebuilt using a hologram.

Digressing briefly, decisions to rebuild or not rebuild the sculptures have not reached consensus, however, a temporary, three-dimensional hologram was installed resurrecting the larger Buddha for short display (Delman, 2015).

I believe that this work is basically what Shinkyuu Art can be about- bridging analogue/traditional, with new technologies. You can still see the original damage, as a reminder, but the statues are also there, almost solid. Almost tangible. I basically jumped when I had heard this, because I think it is what I want to do with some of my Shinkyuu Art, in terms of projecting the finished image, onto an unfinished piece... But perhaps it does not fit in just yet.

Appendix H

Entry Date 27-12-18 of *2018 Journal*, p.123

I watched *Into the Spiderverse* (a Spiderman animation of an alternative universe) and it was actually fantastic in terms to story and style. It was really funny, and refreshing to see movies done well (I am quite fussy usually) even though it is a "comic" movie.

Seeing it, there were elements of written text, comic styled "spots" mixed in with 3D, and a lot of red and blue (almost like the red vs blue 3D glasses style). I wonder if I should have seen it in 3D. Even though it had a lot of colours, the style worked out in the end and became quite enjoyable and easy to watch. I was on the edge of my seat a lot, because despite the mix of styles, it felt quite "realistic" and easy to immerse myself into the world.

I do think the animation is Shinkyuu Art, however I had a conversation about it which opened up more thought onto "Is it Shinkyuu? Or is it Tradigital?"

Into the Spiderverse—although this is animation, it poses an interesting thing about the definition for Traditional. If Katzenberg came up with the definition for animation (which is 2D and 3D animation together), does that mean it is tradigital simply for having 2D and 3D elements together (even if they are all digital?) and not traditional, like my Shinkyuu Art definition.

"Traditional" can mean traditional frame by frame animation. The word develops different meanings as the technology progresses, so perhaps it really is a tradigital piece? I am not 100% sure it is Shinkyuu, but the concept is the same with the Tradigital meaning— perhaps saying it is combining OLD "traditional" and NEW "traditional" or "digital" is Shinkyuu. Perhaps the key word is in the NEW and OLD... and this makes sense, but it only came to me now when I saw *Into the Spiderverse* and had the conversation.

I know that above paragraph sounds messy! Basically, maybe in essence, I should reduce the complication of my Shinkyuu Art definition? Into its essence, which is NEW and OLD. My concern with this, is if it becomes a broad definition like Tradigital currently is. I don't want it to be broad, because then anything can be Shinkyuu Art. BUT in broadening up a bit, I can say, in part, that *Into the Spiderverse* is "a little bit" Shinkyuu Art.

Appendix I

Entries Identifying Tradigital Art and Shinkyuu Art Differences

2017 Pilot Journal

Written ca. January 2018, RE: Entry Date 31/01/2017, p.24

Texture only—for me, it is a common trait for what Shinkyuu Art contains. By playing with texture I can play with what is traditional and what is digital. For me, texture is instantaneous with Shinkyuu Art (mixed art) and I enjoy working with it.

2018 Journal

10/08/2018, p.12

I chose these photos I took due to the sky.
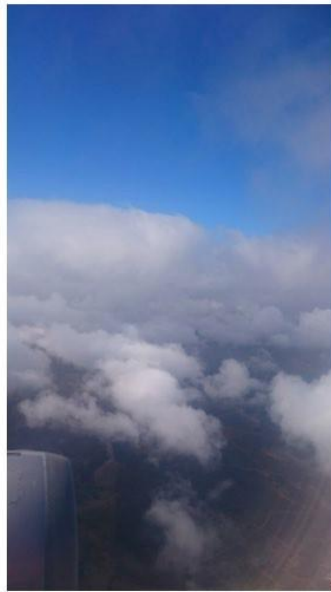
Printed out, they are not as vibrant (I used a low-quality printer).

2019 Journal

15/10/2019, p.130

Sigh. I am actually really struggling with the notion of what Shinkyuu Art is specifically, while avoiding Tradigital [territory].

I also need to remember that I do actually have digital lines underneath this... I seem to focus a lot on projection. I would love to have the digital lines over the top too... Hmm.

Requested 15/10/2019: To pay for 3 x Large sheets of Aobanigami. I accidentally tore one of my sheets. If all the other sheets tear, then I will make do. They are fragile to begin with.

This is for the piece where I imprint some aobanigami onto a piece of paper, and then have the paper backlit. Perhaps this will need to be displayed over a computer monitor, or a lamp for proper lighting. I will likely scan the paper to turn into a mini animation and AR art I suppose. This one did not turn out to be 100% Shinkyuu Art... is it?

Between 22/10/2019 to 01/11/2019, p.139

Note: By "new", the pigments were newly created and available by a colour-maker.

In this case I decided to go with the same idea of digital drawing + printed onto canvas, and painted over the top with analogue/traditional pigments to create = a new method made up of both old and new. The pigments themselves are also new pigments even though they are analogue. It is exciting being able to use brand new pigments.

11/11/2019, p.139

This work is becoming more digital Shinkyuu than traditional without the print transition. I have analogue involvement in that the glasses need to be worn, or perhaps a colour overlayed, but there is no traditional medium perse in this instance. I am a little concerned as I believe one of my charts says it is a traditional digital divide.

Ah, no I just checked back and it is Analogue/Digital.

Analogue is I guess, the oldest form of medium—using sounds, the body to move, dance etc... then to draw.

23/11/2019, p.288

Note: This shows human error occurring in analogue work.

As you can see from the canvas here, I accidentally broke off one of the leaf sheafs. I also added the broken little stem back to the other flower but it overlapped when I tried to place it (very small) and my hand shakes.

2020 Journal

22/01/2020, p.30

Note: This is referring to artist Ai Weiwei's work *Dropping a Han Dynasty Urn,* 1995.

I find this interesting for the mention of old vs new. There have been a few arguments saying it shouldn't have been done, but I actually think it was a good thing for him to do, in the direct context of old traditional culture. It really depends, I think. I think it is sad to have broken a statue, but if he owned it then I can't complain. I look at this and think about what I am trying to do—I am trying to bring in something new to something already existing, but to work with it, together.

Appendix J

Entry Date 22-11-2019 of *2019 Journal*, pp.277-278

I am currently copy and pasting all of the Canvas Progresses and all of the Flowers used into folders, so I can consider whether or not I do a slide show with them or not. I probably will, as I took most of the photos. I just won't be able to make it a perfectly lined up canvas as I did not have the camera set up for this. It's not really about how well done the video/time lapse is though... Again, I am not a photographer and yes maybe it will become a part of the artefact, but does it have to be perfect? I don't know. This makes me hesitate to do the slide show, and also makes me want to line it up properly digitally. If anything, I might blend between the images. **It's also meant to act as a "behind-the-scenes"—a way to introduce the progress into the final work, but I guess it doesn't mean it *is* the artefact.** Progress and Final are still different, but it is a way to link it...

Appendix K

Entry Date 03-10-18, of *2018 Journal*, pp.53-54

Note: This partial entry makes comments on *Digital Art Studio* by Schminke, Krause, Lhotka and Pierce (2004). The quotes that the comments refer to have been removed and replaced with page numbers as references.

p. 56

(What they mean by limitations in colour, is regarding prints.

- Talks about collaging using everyday items and found ones will help build layers to "add dimension and texture to a composition"... "the image to evolve in response to each new layer."

- They state that printing is the final step as it is transparent.

p. 88

(I don't think I am that interested because it doesn't combine digital that much).

- Eventually goes into layering with traditional elements and print elements etc as a mix (sort of like traditional print making in layers). But this whole book focuses only on printing so it kind of feels like only one type of digital. Maybe that is the difference between tradigital and shinkyuu?

- The transfers almost feel like they are taking it away from the digital side.

p. 144

- The end of the book is on 3D stuff-- so in a way, their work has always looked at texture, just none of the definitions said so specifically. But from this, I don't find their work to match my own. It was a different time, and I use a laser printer. Prints to me start to feel more like a digital transfer, than a digital work.

p. 124

Lenticular Images

** What I don't really like is that they use prints, but they don't really integrate them together... I don't know... it's just prints being used and some editing. But not thinking about pushing boundaries like my work does.

- Printing on fabric...

p. 137

-previously not imaginable (only dyes at the time).

- can inkjet on paper backed fabric paper. I would like to try this but I think I could also just get a specialist to do it e.g. spoonflower for wearable work.

- They also use it for art and I feel meh still... photographed some rust, added a plant in photoshop, and then printed it onto the rust fabric...
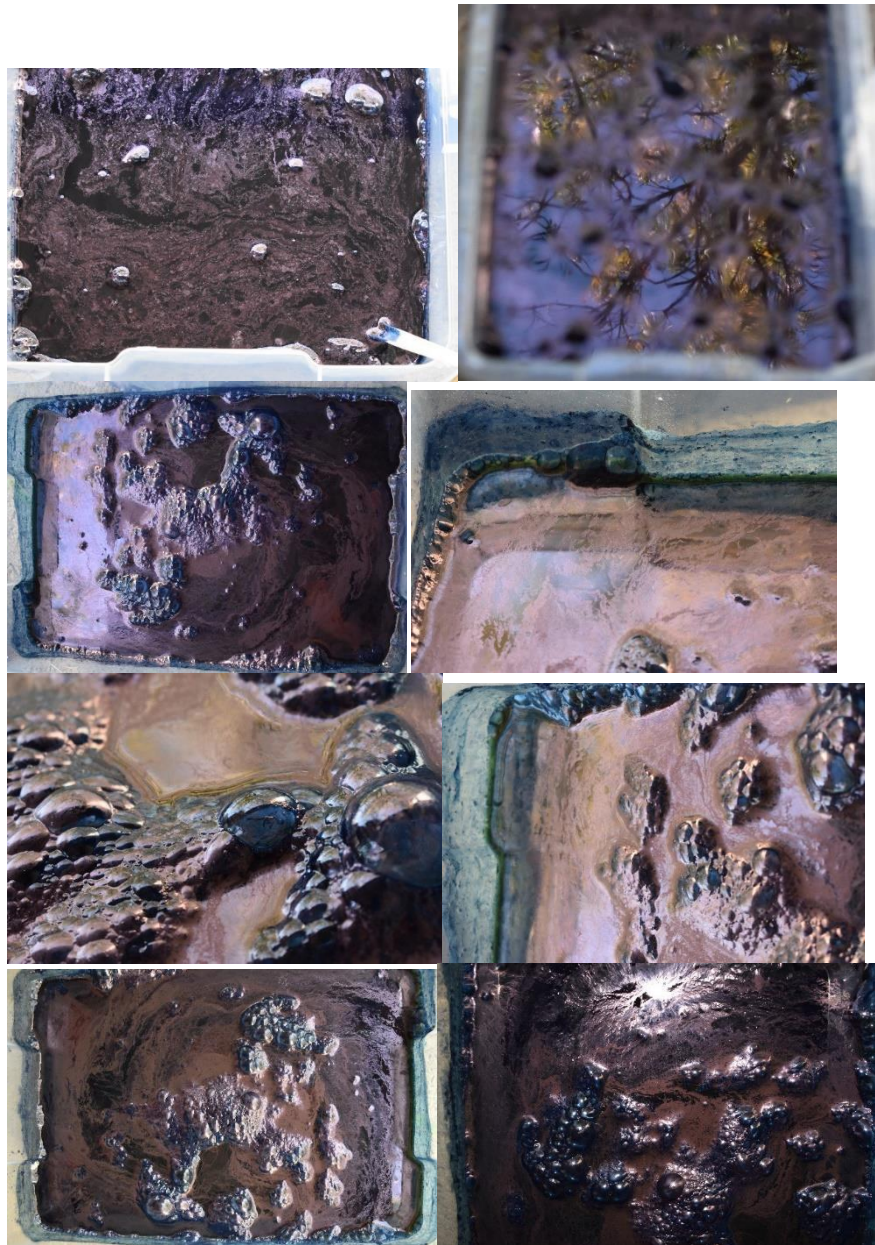
Appendix L

Entry Date Between 14/01/19 to 16/01/19 of *2019 Journal*, p.11

The vat gets a purply colour on top and is a bit bubble while mixing. I got a lot of interesting texture photos though and reflections. I know that I was meant to be doing art studies but I found the mixture to be fascinating and from a texture point of view was really interesting (I have always liked texture). My artworks lately do not incorporate much physical texture, but that may be because the most recent ones are very physical and hands on, very analogue and traditional.

The dye bath would be blue where it could get enough oxygen away from the water, such as the biodegradable fork I used to mix with, and the clear of the plastic container I was using, with tints of green (as the dyed things are green before turning blue in the air).
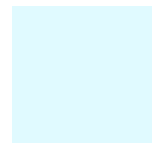
Appendix M

Entry Date 19-12-18 of *2018 Journal*, p.116

I did a quick after-image test so that I can write down what I see. This shade of orange gave me an aqua like blue after-image. I would look at the colours for a minimum of 30 seconds.

Depending on how long I looked at it, would result in the density of the blue I saw. The longer I tried to focus on the blue, the more it paled out against the white background, so I picked my blue (that I thought it looked like) at a guess.

I would think that perhaps the colour it is trying to convey is the complete opposite, but our eyes are different and after-image has always been light reliant / bright colours:

When focusing on the opposite blue on the right, I would get a pale bright orange similar to this.

I tested by having the colour sample chosen over a few tests, and seeing if the after-image matched up with the colour. I don't think it's very reliable, but it does show that the after image will always be brighter than its opposite colour. Does that make sense?

Staring at a black spot would also give me something akin to white (I tested it on a purple background so I can only assume it is white, since I cannot test on a white background). When looking at white, it does show a darker image (but not as black as the opposite colour). So, the colour is definitely the opposite, but not a direct inverse.

IDEA: Maybe I could use this as a way to "shade" or "colour" in an image?

Appendix N

Entries Specifying the Effects of Colours that are Not Blue

2019 Journal

26/08/2019, p.110

The contrast of the orange was even more beautiful so I had to photograph them together (even though I had only 1 hand and my other one was very full).

It did not, however, photograph well up against the blue sky. The blue disappeared a little bit because there was no contrast. It may have also been a little bit back lit (something I didn't realised at the time) so the photos came out darker and dim, but even in the other photos it seemed to be lacking in blue.

I found out later it was dependant also, on the angle of the feather in terms to how vivid the blue was. It captured light well from this angle above with the end angling away, and less from a front on angle.

18/09/2019, p.116

Even though the focus is on the colour blue, I really love the other colours around it. I guess because of the type of Glitch Art I'm doing—getting other colours from the original file… there's something interesting and cool about that. I also really needed the original texture over this because it made it more familiar to the original, and of course, that blue. I enhanced the colour and depth of the texture here so it has been amped but I like it a lot more for that reason. I found there to be a lot of interesting digital textures too, so only replaced a very small section with the original image (white-ish areas).

p.126

Seeing them all together side by side, shows me visually that they do actually complement each other. They are similar enough (even if by a matching magenta) to be displayed together. I quite like that.

Between 21/10/19 to 22/10/2019, p.131

I thought about it and believe I need some green for the leaves and yellow for the pollen, but I don't have any green inks perse... I do, however, have blue inks that came out a little greener in tone than expected. The ones I picked as possible, are Diamine Enchanted Ocean and Kyo no Oto Hisoku.

Between 19/12/19 to 02/12/2019, p.244

The glitter started out yellow and then quickly turned a shade of yellow grey... The colours in-between (e.g. the blue) looked greyer... maybe even slightly blue grey. In the photos, comparing them now side by side, I see that it was definitely more of a dark blue grey.

p.246

The glitter one concerned me in the bath! So much green/blue came out! The paper also curled up.

Once I revealed it, it turns out the colour isn't blue at all but grey! It's not even as blue as it was in the sun—this was so interesting! I was hoping for a blue, and the way the [cyanotype] worked it meant that I had a darker colour on the glitter but it mixed in and became [grey], I suppose.

2020 Journal

03/01/2020, pp.2-5

After some time had passed, I checked on my drying pigments and found that the purple did not remain—whatever that reddish tone is from disappears and only the blue remained on my swatch sheet. It was here I also realised how similar it was to Scurvy Weed pigment—it was basically the same and how I remember it, except more resistant against water and the petals

are so much larger. It could have good application in ink/dying, but it is true that the petals are still quite small. Still, if I had known about these flowers earlier, I might have fallen for them instead! To an extant—the disappearing act that Scurvy Weed does is more prevalent for my research but this flower is a nice alternative. I had to wait for the house owners to come back to ask.

Turns out they are Lobelias! They come in a variety of different colours, including blue. Blue that is rare. I had no idea.

They also contain Anthocyanin which is the same pigment that Scurvy Weed and Dayflower etc contains.

[...]

Here is a scan of the dried lobelia swatches. Once dried they become bluer than purple (even the condensed swatches).

16/01/2020, p.26

Once I did this though, I found that I didn't actually like how aqua the colour was in the halo, after all... It also did dull the shininess of the foil a little bit, enough that I tried to work around it by perhaps adding green back in. I tried to use the leftover foil I collected. It looked messy, and not how scattered gold foil can look... So, again I felt dumb, but I decided to re-foil the entire halo. I wasted so much. I could have saved much more if I had just left it as it was the first time. A shame also, as I would have to re-paint in the black lines (although later I found it wasn't as bad this time, given that I had brushed the foil away from the face and the paint was a bit drier).

Appendix O

To view an example setup of *Bluetiful*, please view the following video link:

https://www.dropbox.com/s/jiwmxor8qikpyhx/Bluetiful%20-%20Example%20Preview.mp4?dl=0

To view the animation in full without the setup, view the following link online:

https://www.dropbox.com/s/luq5kz3juxxxig8/Bluetiful%20SD.mp4?dl=0

Note: These videos have been compressed for online viewing.

Appendix P

Entry Dates Showing the Emergence of a New Name for Printing with Water

2018 Journal

21/10/18 to 21/10/18, p.59:

When I removed the previously drawn flower on the
paper, although it did not turn white, it left a blue mark
underneath. IDEA: I could potentially do some sort of
"shape" or "water impressions" or "water prints" this way, perhaps…

So, I tried drawing a heart directly onto the paper. (By the way, the test paper I am
using is for Watercolour and is a thicker gsm and not cheap! Again, I couldn't use cheap
materials for it). The heart is drawn next to it as a reminder of what I "water painted". Next
picture is with the aobanigami removed. It could have some interesting effects!

19/12/18, p.117 (see also Appendix CC):

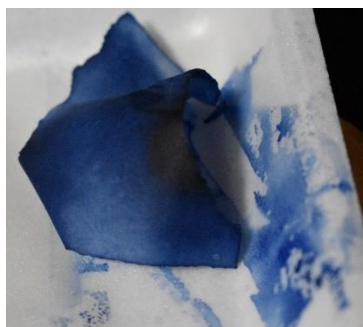The left swatch was taken off of a photographed print of my "press" dayflower
image print;

Scan

2019 Journal

01/01/19, p.2:

Idea: The paper towel part reminds me of the art study press I did to print dayflower onto
paper. Perhaps I should try with a slightly damp sheet of paper next time? I'd be worried about
all of the dayflower transferring though.

06/01/19, p.4:

Leftover dayflower paper—it
sticks to the tray and leaves a
"pressed" mark. Also, very vivid
blue, but it still has some
dayflower left so can still be used
further.

Between 03-02-19 to 08-02-19, p.51

Below are the results of the flowers being pressed down slightly onto fine rice paper (no decoration). It also transferred onto the pages behind it. I didn't plan to use the book's pages, but I do like the contrast of the blue on it... perhaps I could consider it, but the paper is not art-quality.

p.53

I decided to use this one to dry press. Due to the restrictions of bringing back fresh fruit and flowers to Adelaide (not permitted, legally) I wanted them to be dried as quickly as possible.

(Planning Artefacts for Framing) 12/11/19, p.139-141:

- Waterpress aobanapaper silhouette - LIGHTBOX FRAME???

[...]

- Lamp – waterpress aobana LIGHTBOX FRAME???

s[...]

- WaterPress- project the fading of colour of its water onto the canvas (covers the white, creates interest)

[...]

Double sided but not transparent? For both Waterpress and Hair combing Print I could get away with only 1 sided as I need the light behind it anyway... so at least a3

10-11-2019 to 14-11-2019 (originally written 05/12/19)

Water Press Final

So, it was time—I had to do the water press final.

Appendix Q

Red vs Blue / Double vs Standards Alternative Viewing

In the case that *Figure 67* cannot be viewed with anaglyph glasses, photographs have been prepared. This footage should not be analysed as part of the ARTefact, but instead as a means to interact with the work when physical viewing is not possible. A recording has also been made of one interaction using the glasses (no sound) which can be viewed temporarily online at this link:

https://www.dropbox.com/s/e60710k4w22ab4m/Red%20vs%20Blue%20video.mp4?dl=0
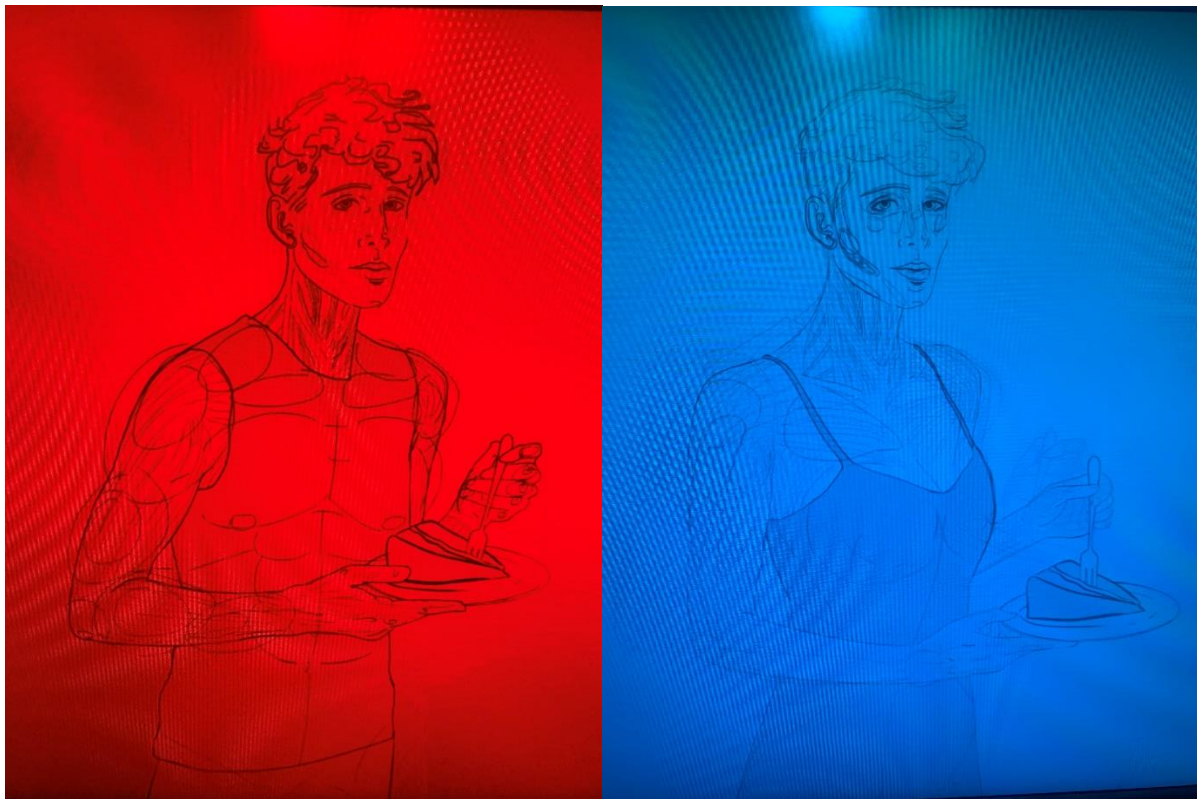
Appendix R

Different Lighting Effects on the Same Surface

2019 Journal

Between 22/10/19 to 01/11/19 of 2019 Journal, p.160

I left it out to charge in some light. It probably wasn't enough to properly charge up, but I noticed the Blue is much more vivid in the daylight which is really cool. My camera couldn't capture the blue at all if it was shooting the image front on (as it auto-balanced the lighting and colour) but when shooting it from the side you can see the blue.

Between 08/11/2019 to 21/11/2019, p.220

I found out (thanks to my light) that the dull paints on the glass needed a back-light in order to really brighten and match the HEX codes. It is true that colours on a computer screen are generally backlit (so we can see things clearly on the monitor) so the glass paintings will also need to be back lit. I think that is quite interesting. It can also be completed blinded by light which I don't like... [...] If there's not too much light or if it is placed just right, it looks like you can get the perfect HEX shade to match too.

p.221

Here is a comparison of it to show what the acrylic-resin pigment looks like against the monitor, blinded by light, and back lit: All different colours.


27/11/2019, p.228

I started with a base of the HEX code for IKB () which surprisingly, is quite dull... What I realised though, is that old school Blue Screens of Death were usually on monitors that are heavily black lit. My monitor screen is quite clear, and although it is still [backlit], it doesn't have the vignette in the corners as well. So, cheating slightly, I added some vignettes and a 50% overlay to boost up the colour and contrast. It's not exactly the IKB colour anymore, but it is better in terms to how I see the Blue Screen of Death.

Between 19/11/2019 to 02/12/2019, p.235

[...] I accidentally printed it on two slippery sheets (rather than one at a time) resulting in a smudge on one sheet. I thought maybe, I could save it by projecting it as layers on the old-school overhead projector (highlighting the flaws). The result was not as bright and vivid on the wall, but it was nicely lit with the light box underneath. The sheets are not as vivid without the light.
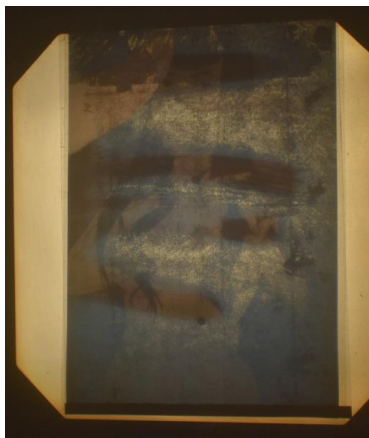
Admittedly the back wall is yellow which may have influence that, but I don't think it alters it that much. It just is duller and less vivid that if it was lighter.

The blues were a dark dull shade. Even when I moved the projector to focus better, it was still a duller colour. [...] It does give me an idea that perhaps this could be displayed on a lightbox.

2020 Journal

16/01/2020, p.28

I found that if the glass was back-lit like I originally intended, it would actually be too big for the monitor screen because of perspective (duh! Another moment of me being dumb). In this case, the scraped background on the glass, actually looked dirty when it was back lit. A bit of light on top also seems to add to the dirt. So, this piece actually looks nicer when it is just back-lit by the monitor screen by itself (which is nice to know).

Here it is back lit (it looks a bit like it has been smeared rather than painted on). The paint lines are also a bit more visible:

Appendix S

Scurvy Weed in the Rain Video Link

To view the accompanying video for *Scurvy Weed in the Rain* (see page 177), view the following link online:

https://www.dropbox.com/s/qjd2780891txptm/Scurvy%20Weed%20in%20the%20Rain%20-%20Online%20Version.mp4?dl=0

Please note this video has been both cut and compressed for online viewing.

Appendix T

Creating New Express Method for Pressing Scurvy Weed Flowers

2019 Journal

Entry 21/11/2019, p.267

The baking paper works well, but I did notice that it wrinkles up, especially the more you use it. I still had the iron set to low (Silk) but I also noticed that the pigment had enough condensation to reveal itself and slowly evaporate—too slowly. I used the instructions I was given, which is low heat and 30 seconds to cool down… but the more I did this, the more I realised that cooling down the petals would mean they will have time to evaporate the water, so later on, I would heat on a minimum setting but under silk (my iron has a button which says I have reached the point between minimum and stick but I don't know what temperature it is…) and then turning over the paper onto a cooler spot and continuing to iron again (30 second intervals but with little rest time). The other reason why I started flipping the paper, is because the dry presses would stick to the paper, but specifically on the top side where I pressed the most amount of heat. Eventually I learned I could peel the baking paper off by rolling it […]

[…]

Originally, I thought the flowers were still wet which is why they were sticking, but sometimes they still stuck even after being completely dry to the touch. Being baking paper, I figured I should be able to scrape it off, so the [palette] knife was run firmly underneath the flowers (in this instance). I later changed to rolling when I realised that was all I needed.

[…]

p.271

I used this method from now on, but only when I could feel that the flower was completely dry. The time it would take would range for many minutes. I never timed myself, but I think it was at least 5 minutes, maybe even 10.

Entry 22/11/2019, p.281

I think from here I stopped giving long pauses between ironings, and instead, kept pressing consistently while rotating the paper (with a brief 3 seconds break perhaps).

p.281-282

Note: At this time, I was using a better iron temperature—around medium low.

I wanted to iron on the canvas (properly!) a couple of last flowers, as I found the canvas texture to be quite nice and I thought it would be paler. So, I picked more flowers to iron on. […] and then baking paper on top to flatten and iron. I covered the flowers with paper, and worked out a way to angle the iron to only touch the new flowers, mostly...

The presses came out really well! Not too embedded into the canvas either which is not what I expected, but it is a clean press which is good.

Entry 23/11/2019, p.285-286

For this one, I decided to carefully pull off the leaf sheaf too and the little bulb underneath to press them individually. I found that the greens dried faster than the petals (unless the greens were too thick).

Appendix U

Growing Weed Video Loop

To view the full accompanying video for *Growing Weed* (see page 182), view the following link online:

https://www.dropbox.com/s/cwz28u3puibxx9s/Growing%20Weed%20Bloom%20Timelapse.mp4?dl=0

To view a short, close up preview, of an example installation recording of *Growing Weed*, view the following link online:

https://www.dropbox.com/s/py4rt0ddu3ptjiw/Growing%20Weed%20Installation%20Example.mp4?dl=0

Appendix V

Examples of Different Blue Pigments in Different Binders/Mediums

Note: Collected references made in my journals regarding medium that can be mixed with pigment. In this Appendix, I will quote, reference the journal document and page number, as a compiled whole, rather than individual single sentence Appendices.

2018 Journal

03/09/18, p.35:

Left to Right Blues: Stuart Semple Blue with Water, Blue with Super Base, Blue with LOTS of Super Base (paler)

21/10/18 to 22/10/18, p.58:

Traditional Medium: Dayflower paper, removing dayflower pigment from the paper with water

2019 Journal

29/11/2019, p. 130

After a few false starts, I settled on using pure Noodler's Invisible Ink (Blue Ghost) and NO water. I have so little pigment that adding water to it, I felt, would waste the pigment. (In hindsight, it probably would have provided me with a nice pale blue and more spread, but I didn't want to have the blue disappear in water). The pigment did not have the same reaction to the ink, which I guess has no water in it. It instead helped the Scurvy Weed pigment run, but not dilute at all.

[Image not included] Even scraping the pigment off was enough, without water.

[Image not included] Clean, tiny brushes. No residue ink or other paints to [guarantee] that the invisible ink will be invisible.

Between 21/10/19 to 22/10/2019, p. 130-131

I am using the ink as the "water" element to take the pigment off the palette. It can be taken without water too but the water helps it flows better (I rubbed some off with brush/friction alone). However, using water does not dilute the colour (something I did not realised despite doing tests). I believe I just assumed it would be best to use pure pigment, because the purest is the most beautiful… However, this is also the first time I'm using Scurvy Weed as art. My other tests had been with Dayflower only.

Between 21/10/19 to 22/10/2019, p. 132-133

Also, I can't use the gum arabic mix in the [mortar]/pestle as gum arabic is meant to be water resistant, a bit? Or rather actually, I know for a fact it seemed to affect the fade of the blue? Hmm. Or the colour of it. I actually don't remember but I'm going to use the pure blue for the main painting. So, I decided to do a small side test while painting. It's also so if I run out of the pure pigment, I had a backup. Turns out this particular batch of pigment (and crushed petals) with gum-arabic will indeed wash away with water and does not look green like Ellie Irons cake did.

p. 134

I found that the pigment concentrated was actually not as lovely as the pigment lightened with water. Perhaps painting it fresh might have had some effect on it too, and maybe even the Noodler, but I think it's because the ink was concentrated and rough on the page (as the Noodler's ink dries faster than water) and that meant the pigment looks more like pencils than the smoother vivid medium blue. I also needed varying shades. Regardless, it doesn't look much like the photo and what scurvy weed blue petals look like. The fresh pigment looked more like it. But again, the dark areas look the same. I just didn't have the right vibrancy, and I think perhaps because it was not diluted by the noodlers in the same way water would

Between 22/10/19 to 01/11/19, p.155

I struggled with the orb the most just like last time. I need it to be teal colour as it is based off of a character, but I just could not seem to get it to glow bright as well if colour is added. It

was also hard to build texture, as the pigment needs water to mix with (or it will get dry and crumbly with Super Base alone).

29/11/19, p.173

It is meant to be waterproof, [fade]-proof—you cannot wash it off. Well, turns out it is not, particularly when mixed in with other pigments. Perhaps it may have been ok with their own brand inks, but for some reason, the natural scurvy weed pigment acted as a carrier and affected the invisible ink. Perhaps because I used the invisible ink to carry some of the scurvy weed, but in any case, it meant that the ink had all run down the picture.

Between 14/11/2019 to 19/11/2019, p.203

I found a problem as I tried to do this final. I didn't notice it on the smaller scale, but on this print, the printed lines acted a little bit water resistant, and would not absorb the water. I had to soak the paper. You can see that the edges of the hair here (right) are patchy, and no blue pigment came out of brush when I washed it in the water. I hoped this would be for the benefit of the piece rather than a hindrance, but a very little amount transferred across onto the paper when I took a sneak [peek].
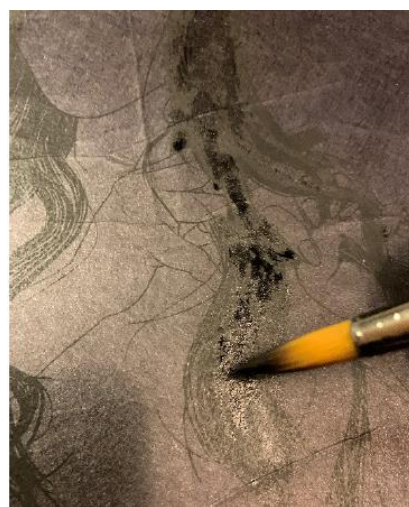
I had to soak the brushes and really soak the paper. I also tried spraying the back of the aobani paper with water to see if it would help it adhere to the pigment, because the print lines (or the printer I used) really seemed to make the paper resistant. Barely anything transferred across so I thought more water would help (or in the lease make an interesting effect).

What happened was the bottom of the paper became soaked and would bleed. The spray was not very precise as it was prone to rotating. This bleed is not the effect I really wanted out of a water press! But I had to make do as it happened.

p.205

The same aobani was used with more water and more pressure. Unfortunately, this meant that I pressed too hard. I thought it was hard to see the lines especially when wet, but actually, the lines had been rubbed off by my painting. I found this out when a chunk came with my brush.

p.206

It was from this that I decided the next thing I should do (as it was the only large piece of aobani I had left) was used the crumpled aobani and try and water-drip, just to see what lines would occur and how the paper would respond to be absolutely drenched. It involved doing a weird set up, and only having one shot.

Between 08/11/2019 to 21/11/2019, p.222

I then moved onto considering the Lapis Lazuli and YInMn. The Lapis is much more purple...leading me to think I had some bad Lapis. I searched for quite a while and I believe I wrote earlier that my Lapis is fine but it changes greatly depending on its medium/binder.

This led me into searching for the acrylic-resin binder. I just loved how [smooth] it was, although I will need to properly mix in the powder. I had some resin (epoxy resin) itself laying around, so I grabbed that to see if it would work.

[...]

I mixed it together with the [palette] knife. As soon as the powder mixed in it became a dark blue rather than a purple. So much better. I felt relieved to know that the Lapis I got is indeed a blue.

The epoxy resin comes out shiny, however, which is not what I am after for this study. I don't want it to reflect too much light—I want it to reflect colour and mattifying it can help with seeing colour, I think.

Between 19/12/2019 to 24/12/2019, p.312

The black adhered to it much better than the plastic and I only needed 1 coat. As the weather was warm it dried quickly.

[...]

The next was the rainbow paint. I painted a top layer on one half of the shell, including broken shells. I had planned on waiting for cooler weather but I realised warm weather means it will dry faster without clumping (an issue from the plastic eggs). When wet it would be clear, and once dried it would change colour (to the room temperature or to clear but today it was warm). I then turned it over and did the bottom half.

p.314

At a warm temperature the eggs definitely turned blue in my hands. My application of rainbow pigment was not thin and even on some areas—if I layered over too much in the middle, or simply because I did not see where some of it had piled up... I tried filing those areas down to make it a bit more even, and also added the very last of my rainbow pigment. I was glad to see the older bottle still worked despite sitting in the fridge for so long. I also used water to help disperse it, in an attempt to use up older rainbow pigment as well that had tried. I also added water alone to the eggs to also help spread the pigment that was already dried on the eggs... I don't know how [successful] it was. [...] I wanted a deeper amount of rainbow pigment so the colour would show up, but it still applied slightly unevenly and where applied thickly it lightened the eggs up to a milky black...

31/12/2019, pp.315-316

Note: I received a response from company Langridge regarding their medium for IKB/Ultra-Saturate Blue. They informed me that it worked best with this specific blue and have been unable to replicate the quality in other pigments. They also informed me that they had not yet tested it on YInMn or Lapis Lazuli.

The Mohs scale I found out is how hard or soft certain rocks/stones are, and as pigments can be made from those things, it had a hardness factor (like diamonds are super hard). I found out that Lapis has a Mohs Scale of 5, so it is medium and might be okay, and YInMn being many elements, was a mix of medium, could go either way. Yttrium had no scale, Indium is 1.2, and Manganese is 6. It's not too hard overall, so it could be okay. I let David Coles know that I would try it out with my YInMn and see how it goes... I would only have 1 shot, really.

It is also good to know that nothing else could replicate the beautiful single-layer-pigment look of IKB in the Primal medium. This means I will be less harsh and will compare it less to this... And instead use whatever is the best. I would still prefer Primal, as it is water based and washable!

20/12/2019, p.318

Note: Comparisons between mediums (in no order) Adam 25, Primal, Super Base, STICK, acrylic resin and matte acrylic varnish.

Appendix W

IKBSoD Installation Example Video

To view an example installation of IKBSoD, view the following link online:
https://www.dropbox.com/s/fov3uhrfg1hwjtg/IKBSoD%20Installation%20Example%20Video.mp4?dl=0

The video length is 00;03;03;03 (3 minutes, 33 seconds), and there is no sound. This video is a demonstration only. It is not intended to be analysed as the artefact itself, but presented here as an indication. The "crash dump" animation in the Blue Screen of Death scene is obscured by the framing of the glass painting in this example. Nonetheless, this provides an idea of the artefact, if the artefact cannot be seen in person. In-person, viewers will need to move around the installation to attempt reading more text.

Appendix X

Mentions of Comparisons between Analogue and Digital Techniques

2019 Journal

14/01/19 to 16/01/19, p.21

Some [photos] with and without flash. The flash seemed to remove the yellow shadows and replaced them with darker grey ones but not as soft. The colour as always is clearer, however.

p.27

Differences in scans—there are areas that are whiter, perhaps to how the light hit some sections because the image was not as flat as it could be on the scan bed. I didn't want to push it down due to it being delicate, in my opinion. I don't know how long the dye papers will last. Left has more white flecks than right. (This error means it is actually difficult to compare images when the scan is different each time. I am thinking of the fading dayflower in the sun piece... the sun exposure. The colour is similar enough, however, that this error is minimal...)

The scans also warp a little differently each time, making it difficult to line up perfectly. In the end, the scan bed was still not large enough to scan the entire image. I scanned one piece at different sides (the piece is mostly square) and it still left a corner out. I think this works well for Glitch Art. I didn't leave the corner out on purpose, but the restrictions of technology left me no choice. I could go back and rescan and restitch the images again, but with the scanning being different each time, it makes it more complicated than it should be, and in this case, the piece as a standalone is easier...

The digital image is blended together with "Darker colour" mode layer and hard edges softened. There is a piece missing in the corner that I cannot combine unless I do more scanning, and even then, it is inconsistent each time.

p.29

The dye adhered, but the paper warped. On this scan it looks like rays of light, which isn't too bad.

p.30

These dips were done in the paler vat—the one where I rinsed the clothing in so it only had a little bit of dye in it. I wanted to see if I would get a paler colour, in which I did. The scan did

blow it out, so it's not as clearly detailed, but again I can see the lines of water and how it ran the dye. Both sides are nice but one side is darker than the other.

14/01/19, p.31

So, with the restrictions of scanners that I can use, I thought of doing glitch art to them. I'd always wanted to learn and I think doing this would be a good match for the indigo pieces. I could then project the glitched image on top of the traditional pieces, as some kind of statement of traditional and digital... You can do traditional glitches too—it happens in analogue pieces, but it says something about digital when you actively try and glitch a controlled digital piece (which also happens by accident but not as much). The files usually become unusable, so the point of this is that the files are still workable, just to a controlled extent.

I also found this blog discussing something I found really interesting. https://digital-photography-school.com/make-abstract-glitch-art-photographs/

"Controlled glitching
In analogue photography, glitches came in the form of negative scratches, light leaks, dust, fingerprints, and chemical residue. Some problems were solved with a trip back to the enlarger or a re-inspection of chemicals. Other incidences, like exposed negatives and light leaks could be an unmitigated disaster. Nowadays, it's the defective memory card that could spell certain doom – so the very notion of intentionally breaking an image may well send chills up a photographer's spine. This is where glitch art comes in, to explore the flaws of our temperamental digital landscape, under controlled circumstances with carefully backed up files."

This again reiterates the digital/traditional divide but also how they come together.

31/01/19, p.42

I could have darkened it before editing, but I think how it scanned is a statement itself to digital technology. The scanner gave me options to scan at a different "setting" such as brightness and contrast, but I have no idea what it looks like until I open the scan on a computer.

Between 03-02-2019 to 08-02-2019, p.60

I do not think the camera is able to capture the vivid and medium blue of the pigment. Here it is again but with flash off, but obviously also quite dark and shadowed. I decided to scan all the pieces... although the scanner is quite bright, it was worth seeing what happens. I will likely try photographing the pieces again, to capture its brightness.

[...]

Here are the scans for soak tests. As I thought, they scanned in much too bright. I place them here to again, showcase the differences between analogue and the restraints of digital technology. Of course, I might have been able to edit the brightness of the scan but I think it also would have been harder to control. I think I'm going to try scanning these again but from my home scanner, and see if I can change how it looks. I actually can't even tell where the edge of the paper is in these scans, perhaps because the paper is so fine it let so much of the light through.

9.
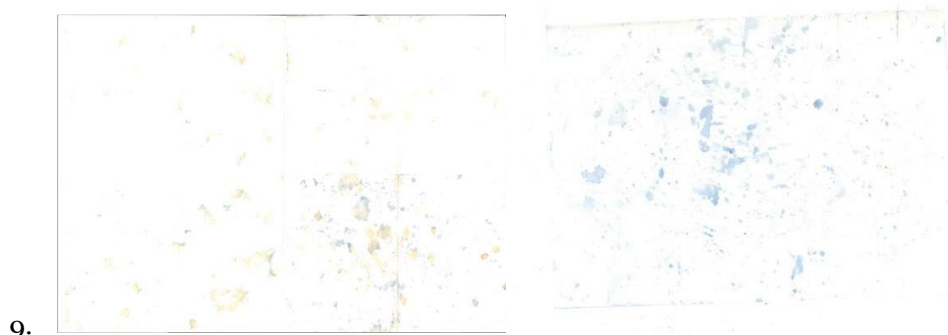
p.62

Since I have more dayflower, I could keep dayflower visible in an artwork, but since I have so little scurvy weed, it's almost like anything I create with it will actually disappear in entirety, **except** for the recordings of it. That would be the only way I could even keep some semblance of what I had... but I would miss the physical colour of it. It's so beautiful, and even more so because I made it myself. I suppose I would want to keep as much of it as I could, too.

15-07-2019, p.98

Prints still appear to be a part of digital art—it appears to be the bridging gap for me, still, even though print is "old"? Hm. **Print is used to display digital work in a physical way...**

25-08-2019, p.106

In one way, painting on the scurvy weed intensifies the flowers pigment and colour. On the other hand, the printer will never be able to replicate scurvy weed colour anyway so why print

it? Mixing it might add to it but it's still just painting it on top. Laser ink is also different—you can't really just paint water on top it has water resistance, so in a way this idea is not plausible.

Between 21/10/19 to 22/10/2019, p.131

Actually. A part of me really does not want to wash it away at all. A way for me to keep the Scurvy Weed pigment would be to scan in the image when I have done the green sections (and probably yellow with permanent marker? Or even gold flake?) and then paint in the pigment again on a printed scan as well as on cotton paper. And then only wash using the printed scan. It's so precious, that it seems harsh to wash it away on expensive cotton paper... But I don't really have enough ink.

Between 21/10/19 to 22/10/2019, p.133

Ok so all this scanning I'm doing I've just realised is <u>pointless</u> because the black light / invisible light is a physical ink and I can't print it! I can't believe my brain is so messy about this at the moment. The only way for me to preserve the original blue (the non-gum-arabic one) is to use the one original image and do the wash on that... **The digital scan will be the only thing keeping its <u>memory</u>, and a video, most likely. The physical one will be washed away except for the invisible ink. I have one shot with my pigment from Sydney.**

[...]

I did not take a full photo of my picture in black light. I wish I did, in hindsight. I did not have a large black light lamp at this time, but it would have been really beneficial to have a full version of the image under black light. I do not have any other versions of it.

11/11/2019, p. 138-139

I am not sure if I can print it off and get a perfect match. I think I previously spoke about just displaying it on a monitor screen even... But I'd rather have the print to give it a transition to traditional, I guess. Hmm. If it doesn't print off properly it would be really frustrating.

Even converting the perfect cyan to CMYK and it turns into a different shade. I am not sure if getting the canvas is a good idea if it comes out bad.

[...]

I can't even edit the cyan in photoshop to make it better for printing. This is a complete write off for print—I cannot actually print this out (so it is purely digital ONLY) unless of course I colour match the ink personally and print it myself- that is beyond my level of skill and not something a print maker would be willing to do (not without money either) I don't think.

Like, I could screen print it out, but there is also TRANSPARENCY involved here which is purely a DIGITAL transparency.

Between 22/10/2019 to 01/11/2019, p.158

I noticed a strange smudge and tried to fix it and ended up making it worse as the water would lift pigment off... I'm still not happy with it but after multiple edits it just has to sit and be ok. I accidentally used the wrong ink too on the lap. I can see the difference but I just have to go with it. It's one of those cases where editing something is always a problem with analogue pieces. You can fix them for digital but not for analogue...

29/11/2019, p.166

As always, the scanner always blows out the image... I edited with 30% multiply, just to darken it a bit but I still think it is too bright. Any more darkening and I think it would be too far from the real image despite its brightness.

p.170-p.171

Another phone picture after it had dried a bit and before scanning.

I scanned it in because it was beautiful. I felt sad still about losing all of the blue and I wanted to preserve it in some way.

The rain did not pour as I had expected, and I ended up stopping and starting my recording multiple times. It may have been better on a rainier day but in hindsight doing this on the Friday was the best way. The next few days only rained in the early morning. Because there were pauses, I was able to let the piece dry and do a scan part-way through. I really like this version, I think it's beautiful, but the idea was to wash off all of the blue. I took photos with the camera and my phone, but in this instance the scan would bring up more detail than a [photograph] even if it does blow out the whites a little bit. The dull sky made the photos difficult too.

Here's the scan, which is considerably brighter but it was also not photographed in dim light… I only managed one pause scan.

[…]

I'm not really happy with the lack of focus on the photos though. I tried to adjust it but it just isn't as sharp as it could be so I am glad I scanned, but I couldn't possibly scan in those wet droplets, so the photos were [necessary]. Maybe I could post-process them to sharpen but it'd just be lying about what is actually there. At least the depth of field on the background is nice (blur) so you can't see how messy the actual garden is haha!

03/12/2019, p.172-173

Here's what the image looks like under a larger black light:

When photographing it, for some reason the entire image turns blue when what I see is brighter whites and some slight coloured light… interesting. That is a loss for digital—it is not possible to really record this because it's not the same… but at the same time it also shows that the light is ultraviolet and blue and this is only visible through digital… so half win?
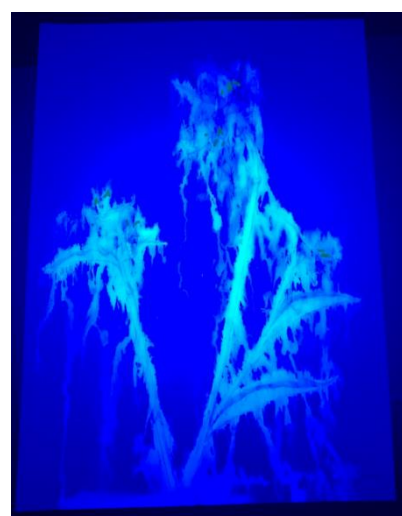
Between 14/11/2019 to 19/11/2019, p.205

The water was back to being soaked in blue again… I always feel like it's such a waste doing aobani with water, but it is the idea of things not-lasting that I am looking at… the idea that digital can capture it, for the most part.

Between 15/11/2019 to 20/11/2019, p.215

I found that Photoshop is actually really [temperamental] with [measurements]. Even when I gave it precise measurements, it would sometimes round the canvas or size up/down. I ended up using the rulers took and looking at the decimal measurements to place my rulers. From there, I inserted an image template based on the approximate measurements of the prints. Then I rotated the glitch images within each template and guessed how [centred] the images would be from underneath the matboard.

Between 08/11/2019 to 21/11/2019, p.220

I then placed the glass up against a monitor screen to compare the colours (this one is IKB) and I found the physical colour to be much duller than the HEX code even though it is up against the monitor light.

Between 19/11/2019 to 02/12/2019, pp.240-241

I scanned in the spread heads for archiving. The scan (for once) came out beautifully for this one [...] The blues are vivid! Much more than I expected of transparency sheets (although they are made to capture the light?) The black

lines are also all darker and more contrasted. It was a bit of a surprise to see the scan come out so well, as I thought the plastic would reflect some of the light like glass would. Again, though these are made for allowing light through for projection. Still, I love the look. I wonder if I need to present this piece digitally instead of analogue in a glass frame.

21/11/2019, pp.268-270

This one deserves larger photos and being on its own... It also had a bulb above it. Normally the top bulb blooms whereas the ones inside the sheaf bloom second. This one also has another bulb inside, so I felt bad picking it (what if it needed this flower to bloom more?) but **I needed to preserve it more than in just photos**. I picked it with tweezers gently to remove from the entire stem rather than picking from the stem.

2020 Journal

14/01/20, p.15

I considered using the lines to become the base and allow the painted glass to reflect the digital black lines, but to do so I would need to take my specific monitor in and also paint while the glass was on top of the monitor etc. If I don't use my monitor then it could go out of line, so I figured it would be best to print the lines and add the lines to the glass.

[...]

I printed out the design on A4 paper as I was at home. The size of the glass is 30cmx54cm, so I aligned the canvas to this size and set up the prints appropriately. I also reversed the image this time. I printed straight from Photoshop which also allowed me to align where the print would start from the border etc. I stuffed it up the first time as there will be sections that won't print at all on the paper (they get cut off) but I didn't know until I did it the first time around. Second time was much better.

Appendix Y

Updated Entry Date 01-09-18, of *2018 Journal*, pp.24-25

First, I cleaned up my original digital drawing so that it was more simple-- less detail, more lines and shapes/colours. I wanted to print the background blue, as a relation to its original digital origins (via print), and also so I would not need to paint it (a likely tedious process since the lines are already there and the work has already been done). I felt that it needed to be a midnight blue, since it was meant to the moon on a night sky... but wanted to print a bright vivid blue, to show how easy it apparently is to print these days. I would make it more midnight when painting. The lines I ended up using were for an older sketch of the drawing. I then also realigned and cropped the image to fit an A4 piece of paper.

I came across a problem when printing. Since acrylic paint would be my medium (as *Lit* only works with a base added to it) I needed to print on thicker stock. I had a few options and decided that if I was going to paint it, the acrylic stock I had would be the best option, as it would reduce the bubbling occurring on the pages. I also really enjoy the texture of the stock, so I cut up an A3 piece to be A4.

Unfortunately, the printer did not enjoy the thicker stock (perhaps it was too thick?) and was unable to properly print the blue (the light colours were fine), I thought I had broken the printer, until I printed it on slightly thinner stock (but cream) and normal white paper-- all without problems. As such, it was the thicker stock that was the issue... but then while thinking about it, the stock is made for acrylic-- glue like paints... not printers' ink! Maybe that is the reason why?

None of the blue turned out as vivid as the one on screen though.

Whatever the reason, I was determined to use the acrylic thick stock. The fibres of the printer ink (which is apparently melted plastic?) is visible on this print, and unfortunately purple. I did find this fascinating though, from a textural point of view, and enjoyed placing the fibres onto another piece of paper to stick on. For this reason, here is a picture of it. I probably would not want to use an expensive printer again for this, but I do think it's fascinating, and I hope melting Crayons (the Bluetiful) will satisfy my need? It's melted plastic, yes, but the fibres are an interesting texture.
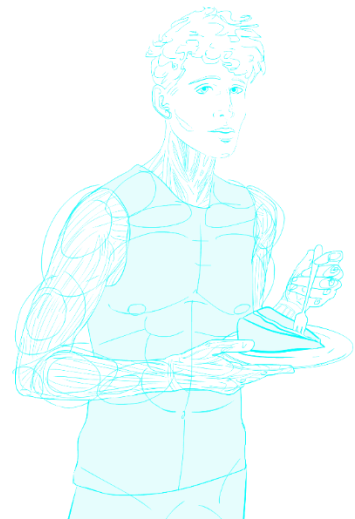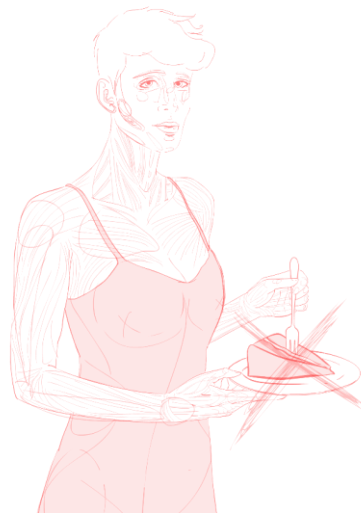
Appendix Z

Entry Date between 17-10-18 to 19-10-18 of *2018 Journal*, pp.115-116


I printed this sheet to test on different inks. I don't think my printer is at full ink colour range either, so the outcome will be interesting.

I know... it's hard to see! But I enjoyed doing this a lot.

Here's print screens from a video with the glasses over the lens (and some basic corrections done on Word so it is easier to see): I also realised I could have taken photographs, but a video is better for showing both versions at once...
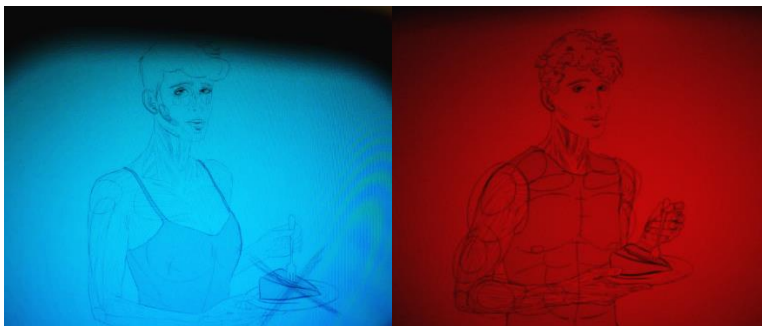
It came out darker when printed (common place as monitor screens are back lit) but it is definitely different colours and the blue does not really work at all with the glasses (same problem I had with the earlier tests).

The red is more orange, and the blue is more medium blue than aqua. I am curious to know if Cyan is darker than Aqua? Hmm.. yes it is different. This proves my theory that ink is different to screen. That bright Aqua is probably only possible on a screen? Is that what the red/blue 3D movies do? Are there print versions?

Even if I was to print this on transparency sheet, in order to get the exact background colours, I would also have to print it out, and even then, ink looks different depending on what it is printed on—matte paper, vs glossy transparency would have differences. I have noticed other 3D red/blue artists will sacrifice a bit of perfect "invisibility" in order to get a look. I don't really know what the right word for that is... having something disappear by using the same colour. It's not the same as After-Image.

Speaking of, I have yet to do something with After Image...

Appendix AA

HEX Code Variations

2018 Journal

11/10/2018, p.118

The blue I used I chose from a Colourlex sample of YInMn blue...

But now in hindsight, as I am writing this up, I just realised my photoshop dropper is incorrect (there are of course inconsistencies with scanning images, photos changing what it looks like, light/darkness etc). Apparently, the HEX code for YInMn is:

YInMn Blue / #2e5090 according to https://encycolorpedia.com/2e5090

2020 Journal

12/05/2020, p.7

I've just realised while finishing the exegesis, that the HEX code for Ultramarine is #4166f5 https://www.colorhexa.com/4166f5 which would better match what I had. I do recall googling this but I trusted that the Lapis Lazuli hex code was a better match and that Ultramarine would not be for the natural colour. Which was true—synthetic ultramarine is #120a8f which is a dark blue which I of course discarded, but today I decided to try French Ultramarine and came up with this one.

It is a little confusing as I don't know which one is official, but the purpleness of this one, reminds me of what I used, much more. As such I am going to alter the colours of the final piece.

I feel lucky that digital pieces can be altered, but at the same time I would not have had that problem if I only had the one option. Digital provided many options, traditional pigments do not. But still, I DO feel really lucky that I can edit this piece, because the other half of the piece is being framed and I do not have access to it.

I do not think there is even an official place to get HEX codes. I tried the regular Ultramarine hex and it is very dark. Close to what it actually looks like as a physical pigment, but it contrasts greatly with the YInMn HEX. The French Ultramarine hex I use above is also

quite paler than the YInMn. In fact, you can find altered HEX for YInMn too. I found #2f4a99. Urgh. What I am thinking, is I think I will just colour pick a colour directly from my artwork. It won't be accurate, but it might be more accurate than the generalised ones online which really don't match my colours at all.

This means the new background looks like this:
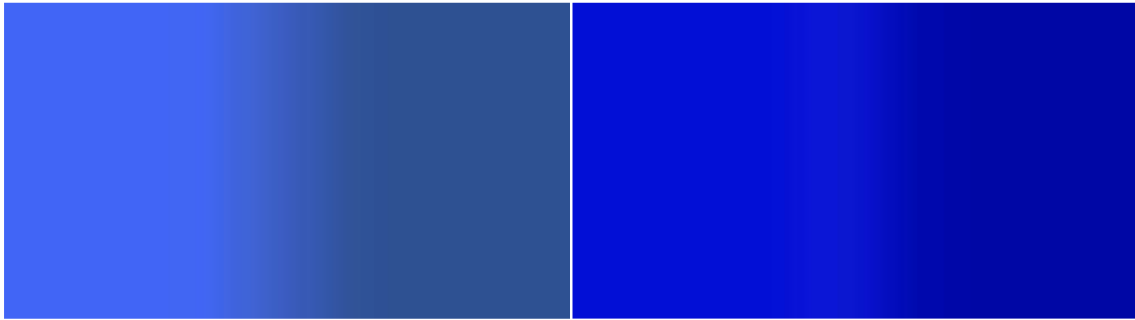
Significantly darker, and matching the paints I used a lot more. I am worried it will not contrast enough, but the point was that they would blend a little. I am comparing and blending digital and traditional together. I am hoping the halo will help with definition, but the bit in the middle where the face is might hide too much. I think I will alter this, once I finally get the artwork back from the framer. It might turn out that I end up using the paler HEX codes for a reason, or even the first original HEX code image.

Appendix BB

Elusive and/or Expensive Pigments Creating Interest

2018 Journal

17/09/2018, p.48

For me so far, the more expensive or elusive the pigment, the more interesting.

2019 Journal

04/02/2019, p.63

I did find this brand that apparently uses natural pigments (hence very expensive) called WALLACE SEYMOUR (native earth and bespoke series). It includes different types of Lapis (which is amazing!). I wish I had seen these earlier. AND Indian Indigo as a paint itself (synthetic or not I am not sure). Even woad... from Italy.

Between 08/11/2019 to 21/11/2019, p.216

So one artwork I hadn't quite worked out was the Lapis Lazuli vs YInMn piece. I wanted to have the two very expensive blues riff off each other on glass by printing them with transparency (with monitor screen and physical paint), but when I researched this it was near impossible to find anywhere within Australia who would do it. I only found one place in Europe and they never got back to me.

22/11/2019, p.278

Note: The purple bulbs are blue flowers with very condensed pigment, possibly also reacting to acidity in dirt or air.

Since there were so many purple bulbs, I also decided to pick one. This one was on its stem. I felt bad picking it as it had a small bulb developing, but I wasn't sure if I would always have this opportunity for purple bulbs so I figured a once off would be ok.

28/11/2019, p.300-301

Note: I was also really thankful for when I had plenty of such elusive pigments.

I felt really fortunate that I had so many flowers early on. It took a lot of time to individually dry press and glue them on, but I am happy that I had a finished product earlier than expected, leaving me time to do other artworks.

As a finishing touch, for a while I had been considering whether or not I would be able to do a bar of blue up the top of the canvas like other ukiyo-e prints. This is not a woodblock, but the flowers relationship with Dayflower makes me think of Japan, and the contrast of a blue bar would be beautiful.

[...]

In order to get enough pigment though I would likely need to make another trip to Sydney... On a whim, since today I had so many flowers, I decided to collect all of the remaining petals and see if I could grind or [squeeze] up enough pigment for the top, even if I had to build it up over time. I tweezed petals off the flowers rather than picking the flowers themselves. Not many overall. I was going to squeeze them in something else or grind them in a pestle but then pigment would be lost, so I ended up dumping it directly onto the canvas. Right away pigment was already starting to come out. So, I grabbed my mortar and decided to grind it with the baking paper over the top, hoping to release some of the juices directly onto the canvas. It worked! I continued to work along the top moving the petals and grinding along and managed to make a cloud-looking bar up the top. I like that it doesn't completely finish to the end, instead fading away, and that it is a paler blue.

[...]

I did consider whether or not I wanted to add more pigment, but I felt like adding more could lead to mistakes being made, or that I would not like the final result. The paler blue works because it adds to the piece rather than takes away. It's an ode to ukiyo-e but in a different way. There would be petal fragments among the pigment there since it was ground up, but once dried it should be okay and not turn brown.

Appendix CC

Entry Date 19-12-18 of *2018 Journal*, p.116

I sampled a few different tones and saturations of dayflower for this swatch.

The left swatch was taken off of a photographed print of my "press" dayflower image print; and the right is taken off a used piece of dayflower against natural light. You can see that the aigami is purer and brighter in colour, which makes sense since the light adds vividness and brightness. Scanned pure aigami, is so dense, that it almost looks black.

From this range of blues, it's clear to me that picking one colour for dayflower is unfair/minimises its true range and the fact it is a physical thing—different lights will affect it.

The images/range of dayflower I used are below:
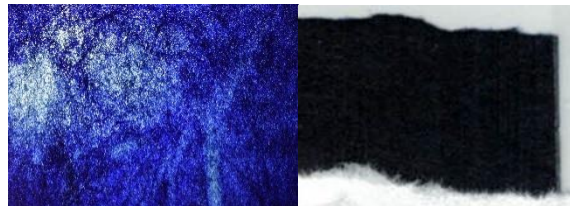
Larger versions of them are scattered throughout the document.
I decided to draw lines with the pure dayflower scan (almost black).

Appendix DD

Examples of Different Blue Pigments on Different Surfaces

2019 Journal

14/01/19 to 16/01/19, p.14

I found that the "ink" applied quite thin and transparently. I could layer and pool on the ink to make it darker, but it was not easy to control. The ink would disperse and usually pool on its own. I accidentally splashed and dripped a few times if I tried loading my brush thickly with ink.

I found that the triple primed canvases were indeed, a little harder to penetrate the ink into. You can see that the canvas texture shows up on the lines I made (and also how it is pooling).

I wasn't really happy with any of the canvases I used, so I took out a sheet of paper and drew on that too. The ink applied better on the sheets (which are unprimed). I used watercolour sheets, in a variety of rough texture, hot and cold pressed. Hot presses are very smooth, and the ink went on smoothly but I don't know if it "gripped" well if that makes sense. I found it to be too "slippery" and preferred the cold pressed papers or the rough papers. The ink did not really "bleed" and remained where it was applied from what I can see.

Between 21/10/19 to 22/10/2019, p.130

I used the last A5 cold-pressed cotton, because it is smooth. There is not that much pigment to work with and although I originally wanted a larger picture for exhibition, the rarity of the pigment and amount meant that I could only really successfully achieve a small amount.

Note: See also Appendix V, entry date *Between 21/10/19 to 22/10/2019*, p.134

14/11/2019, p.144

I had forgotten but based on my other studies, I cannot do a water bath for good quality [watercolour] stock as it does not [absorb] it the same way. I won't wrinkle as much but it will also just reabsorb the colour as it sits. The best way to do the Invisible Ink scurvy weed one may be to do a rain-styled "wash". I like the idea of it sitting outside in the rainbow but I

would need to waterproof my camera gear somehow and still make it viewable and clear. Perhaps having a long-lens view so the camera can sit in the shade?

Between 22/10/2019 to 01/11/2019, p.156

You can see how shiny the original print was compared to the paints, which I don't really like. I tried spraying a matte picture varnish (workable as I won't be able to continue painting on it) but it didn't really make much difference. I tested it on the side borders.

What I did find work was a little bit of water with light blue powder. It doesn't adhere as well without Super Base, but the water is enough to help it stick, and it would just mattify the satin blue areas. I ended up using my fingers to smudge it in.

The Left side is all matted by the powder, the right side still has a little bit of Satin.

I didn't end up covering all of the sky—I found that some areas left Satin made it look even better, like a part of the galaxy.

Between 10/11/2019 to 14/11/2019, p.194

From here, I realised that the canvas I was using was not absorbent at all, and stupidly, I found out that canvases are not naturally primed for watercolours. I forgot that the canvas shouldn't have been primed in order to be absorbent.

[...]

It was also here I realised the differences in canvas. My illustration came out nicer because it hadn't been primed as much. I had no idea they were different at all when they were advertised as the same.

Where I rested the dayflower paper, it left some of the excess pigment that should have soaked into the canvas but did not.

p.195

In the end I decided to just rub the paper onto the canvas and that seemed to work much better and darker.

I much prefer this, even though [it's] more of a rub rather than a press, and I don't [mind] the greens and stems being lighter than the actual flowers.

The rubbed-on pigment portrays some shininess as well which I like.

[...]

In hindsight, if I had known that the canvases were different (one was primed more than the other) I would have at least used the more primed one for the illustration, because I can control the application to that more than I can control the water press.

p.196
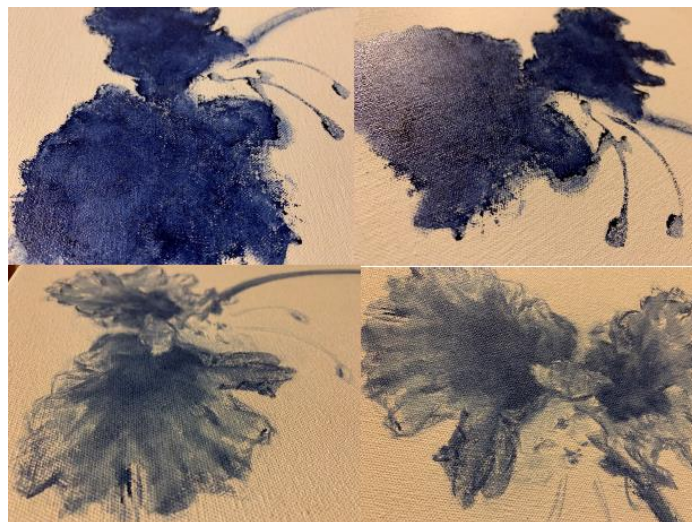
p.197

I don't like the top half as much as my study but again, this was what was pressed, and the mediums are temperamental...

Between 14/11/2019 to 19/11/2019, p.199

When the aobani became wet though, [the printed lines] would reflect the light and made it difficult to see where the lines were. I had to guess in some instances. At least the rice paper behind it would easily absorb the pigment (unlike the canvas).

Interestingly, it didn't really bleed through to the backup paper behind it like I thought it might. One side of the rice paper is slighyly shiny which must act as a deterrant of paint bleeding through as much?

p.200-201

Here it is against the light- it is definitely a lighter blue which is nice. I love the dark blue but I think blues are more vivid when they are slightly brighter.

The printed dayflower paper did not go as transparent as I thought, but it did allow for a few variations of blue in the paper itself. You can barely see the eyes here (which is interesting since I removed the eyes for the newer version of this drawing—I just didn't like the face or fringe anymore. It's me but it seems so sharp and so personal. I found that I needed to remove the face to feel more comfortable with it (and I guess more able to work with abstract shapes rather than tiny details like the eyes).

p.205

For whatever reason, this aobani paper, was more water resistant than others. Either because I photocopied on it, or because of this specific lot of aobani. I am not sure, and unfortunately, I didn't think to check the crumpled piece to see what was happening.

Between 08/11/2019 to 21/11/2019, p.218

Back to glass, I was given 3 different glass pieces as some glass might adhere better although I wanted an anti-reflective one. The Anti-Reflective was the thickest of the glass (only on one side/one way up) and that one was made by etching according to the framer. The UltraVue has a naturally slightly anti-reflective surface and has a slightly less green edge but with how it's made is more of a "film", and normal glass I think is also etched? It has a green edge.

[...]

p.219

All were perfectly fine with the acrylic-resin IKB medium. In fact, it is beautiful—very well applied, and allows for transparency as well. It also washed off in water.

[...]

All came out just fine again. I added a lot of pigment to the Super Base so it was a bit crumbly still, but at least the colour is ok and not too light like I was concerned about.

[...]

So, the good news was both my pigments would work, even if they are different. The Super Base allows for the paint to be raised.

p.221

The next test was STICK! I found that it was really difficult to apply on the UltraVue—because of its film consistency the STICK applied like water, but it did eventually dry and adhere. It was much easier on normal glass and anti-reflective (both etched) so that concreted my use of the normal glass more.

[...]

I then used a clean brush to dust some paint powder onto the STICK areas after letting them dry, then shook the pigment off onto the paper (so I could put excess back into the container). I ended up needing to use the brush to brush off excess pigment too—this glue really only does capture a thin particle, it's amazing, but the pigment that comes out is not concentrated so it's actually pale and now what I'm after. It's even paler than what it looks like in the container.

2020 Journal

13/01/20, p.11

My hands were also [shaky] but I think that worked. Using the watered-down paint, I could also create some nice drip effects. I wish I hadn't stopped some drips earlier, as applying more created another drip layer on top rather than a continuous drip line, but I didn't want some of the lines going too far. In hindsight, I could have scratched it off (as it does not set permanently immediately).

14/01/20, p.16

I had left my Primal spoon alone to see if the bubbles would settle (as suggested). It did a little bit but the areas on top has also dried (and appears darker than the blend so that was good to see). The paint itself unfortunately still films on top of the glass rather than being flat and less runny like the IKB. Surprising, as they are both the same medium apparently. I had to blob this specific blend on to get any opacity.

Paints that had already dried also dried with their bubbles, and unfortunately less matte than the IKB saturate (although more matte than the glass itself...) This set me up ready to prepare for the artwork to fail, but I hoped it wouldn't. For this reason, going with a stained-glass look would be the best scenario without the matte-ness of the paint. I would also need to try and avoid bubbles.

Appendix EE

Entry Date 11-10-18 of *2018 Journal*, p.119

I tested all of the crayons I had (as it was a bit of a lucky dip buying the blues).

I found it extremely frustrating that some of the crayons had no name on the label, as I would not be able to find them again if I wanted to buy them separately. It also reminds me of what Finlay said about it being a shame when there is no name. This reminds me that "Midnight" is the new name for Prussian Blue, so I actually had it in crayon form.

I didn't realise the crayons names were written down until later, and suddenly I saw them in a different light. I can guess its history and origins, and I find that really interesting, and a form a connection with the colour.

It frustrates me that the names are sometimes placed at the top where it can be sharpened away and the name forgotten.

The crayons generally come out paler and are harder to obtain the colour that is expected on the label. This is a difference between analogue and digital—digital is very precise and print and some mediums like crayons are not.

Appendix FF

Using Multiple Digital Programs

2019 Journal

24/07/2019, p.98

I've found that these files cannot be added to photoshop—this means that they cannot be edited together, but also, they may not be visible on another person's computer. I will need to try and continue finding a work around this, or my idea may be scrapped.

Ok so crisis averted. I decided to randomly google some words together and although I found absolutely no help on opening it in Photoshop, I did find some information that the raw files can be opened in Paint. https://digital-photography-school.com/make-abstract-glitch-art-photographs/

I am a PC user so I could thankfully test this right away—it worked, and I could resave it as a PNG/JPG and then open in Photoshop. The quality is different (seems to [be] a lower file size—unsure about dimensions as they are not listed on the RAW file itself but possible no difference) and being glitch art that is ok. This is an extra step but at least I can edit the files together. Visibly there was no major difference apart from the PNG being less sharp and clear as the RAW file. The colours remained the same.

17-09-2019, p.114

I tried to collect my favourite things about each image-- whether it was the texture, or colour, or the fact it was so different to the original. I tried to keep the original [recognisable] and intact too.

I used mostly sharp edges and squares/rectangle selections. Some of the areas had a feathering/softening to them but I mostly kept it raw, because I did think Glitch Art should be quite raw and less controlled. The fact that I can pick sections almost feels like cheating, although I know it isn't... not really. Either way I did use a more rustic approach to combining so it felt more "real".

22-11-2019, p.277

I took a photo of the canvas progress on the camera as well, and the colours come out more vivid but also more yellow (too yellow) so I had to photoshop it... My phone has a newer

processing system and seems to be really good in capturing reality more than my older DSLR camera. I also needed to alter the horizontal lens distortion to straighten it up a bit. I might be able to adjust the yellow, but the fact it is too warm to start with means it would be more work.

Appendix GG

Gradients in Artefact *Billie*

2020 Journal

15/01/20, p.21

The Lapis actually dried faster than the YInMn, so when I added extra Lapis on top it created visible brush strokes. The YInMn was so smooth and shiny, for a while there I didn't know if it would dry (but it did). I added some watered-down paint for the face, but it did not have the same effect as the IKB so I had to play around with it. It had a bit of a gradient effect when I added more paint to it (when it wasn't 100% dry).

16/01/20, p.27-28

The next stage was to get the digital background working with the glass. I ended up blending both the YInMn (left) and Lapis (right) (opposite sides of the background) to meet in the middle. It's not a perfect blend—I had to overlay them using some feathering/gradient. I also left a bit of white in the middle as it created a bit of depth. The colours, digitally, are a bit different and also now paler compared to the paints itself. I had considered using a completely opaque middle, but it meant one of the colours having to over-ride the other, and I didn't want that with this piece. I then placed the glass artwork directly up against the monitor screen to see how it would look.

Appendix HH

Entry Date 03-09-18, of *2018 Journal*, pp.30-31

I then wanted to see what would happen if I scanned the image-- the scanner would put a large dose of light on the image to scan it. Unfortunately, nothing interesting came about it. I wonder if perhaps it did not scan as clearly as it could (as the luminescent of the Lit would glow over the dark areas perhaps) and maybe that did happen, but it was not as crazy as I thought. I previously remember trying to scan glitter-- that ends up being quite a mass of random light and dots, but it did cope well enough. Sometimes though, a picture is better at capturing an image true to its look, than a scanner.

I also considered photocopying, but if the scanner did nothing interesting then I would think the photocopying would do the same, and I did not want to waste materials.

Update: I realised later that actually my image was very bright when scanned, perhaps, too bright. But the blues are clearer, and so is the texture.

Appendix II

Entry Date 09-11-18 of *2018 Journal*, pp.97-98
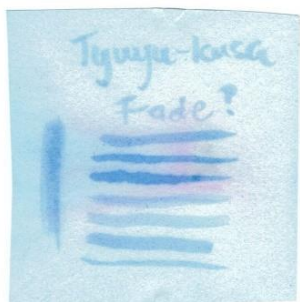
Update: Days later I left this to dry and found that the paper is smooth—it is not bubbly like the aigami test. The back of the paper is also shiny, like as if the paper has been coated in some kind of protection film. I am unsure if this is because of the evaporation, or if the ink itself causes this. From the dried ink on the foam tray, I can see blue and purple colours. The paper is blue and pink and the ink has soaked through to the back as well. I did a scan of the paper, which may better show the colours (although scanning, since it uses white light to flood/scan the image, can sometimes turn out too bright). I would say that this scan is less pink, and does not show up the dark spots on the right (look grey) that I can see in person. The scan also seems bluer.

(Right) I then tried to edit it in photoshop so that it would look more like what I could see in person. Although I could turn the background to be whiter, I could not pick up that purple range to make it more pink or noticeable. I am sure I could digitally add in the dark spots, but what is the point?

******NOTE**: This suggests to me that a digital scan can NEVER be a proper replication of a hard copy. As such, I may get a truer, digital viewing, if I combine both hard copy and digital together (Shinkyuu) perhaps?

I tried taking another photo of the paper in synthetic light (as there is no daylight currently) and the result is a darker and less sharp image, although I think the representation of spots and colour is better, and it was also easier to replicate the paper with an edit.
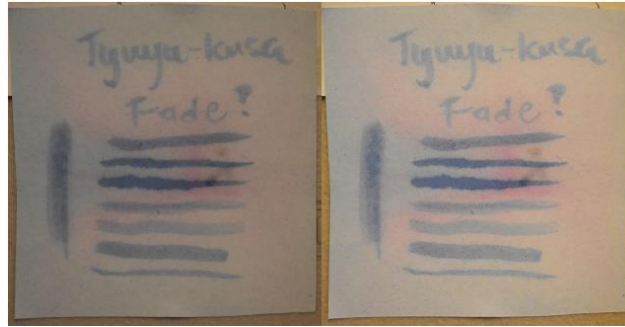
Left: Photograph, Right: Photograph with edit

The paper will take on different lighting depending where it is, and I think that's one of the differences with digital vs hardcopy—how something physical is seen, will depend ultimately on its lighting. In the shadow, the edit on the right looks like my paper... but if I hold the paper under my lamp light to see it better, the white should be much brighter. I am not able to edit the white here, as it is too dark to be considered "white" according to photoshop, without also altering the colours (which I think are right).

Appendix JJ

Updated Entry Date 13-09-18, of *2018 Journal*, p.47

On my walk home I noticed how beautifully blue the sky was—but in three different shades! I do not know if it is clear from these photos, but perhaps by how the clouds were sitting or the time of day or the horizon etc. The blues were different tones for me.

Dark blue above, medium, then lighter closer to the horizon. It is almost like that blue bar across the top of some ukiyo-e prints (the symbolism of a darker sky the higher it is).

If I use photoshop, I can get the different colours too as swatches.

This shows me clearly that the skies were different shades of blue, at least, in terms to what my eyes were seeing, and how the camera captured the light and colour in the situation.

Perhaps there isn't one colour for sky blue?

Appendix KK

Entry Date Between 22/10/19 to 01/11/19 of *2019 Journal*, pp.153-154

I wanted to mix some green lit with the blue lit to make a teal... eek turns out they don't really mix like normal colours. I instead got very bright green lit contrasting the blue. The green is easier to make bright than the blue, but this means I've not over-worked my painting (whereas before it was good). I am trying to scrape off the green areas and use a wet brush to "wash" it off too. I can't use turpentines for this, obviously.

So, I scraped away at the green with a palette knife. The water would remove some of the paint, but it was greatly helped by scraping. Eventually I got little to no green showing through. I am sure there are some tiny flecks but it is much less noticeable.

I feel a little stupid for not testing the "teal" lit before painting it on. It shows working with light emitting paints do not mix colour the same way (of course not, as it is light!) I should know that, but the notion of physical colour mixing is embedded in me.