PSYCHOLOGICAL AND VISIONARY MODES OF CREATIVITY:
A Jungian Analysis of Westworld Towards a Potential Design Pedagogy

by Courtney Jade de Villiers

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SUPERVISOR : Dr Duncan Reyburn

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UNIVERSITY OF PRETORIA
SCHOOL OF THE ARTS
INFORMATION DESIGN

DECLARATION OF ORIGINALITY

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(student no. 13386230)

I hereby declare that *PSYCHOLOGICAL AND VISIONARY MODES OF CREATIVITY: A Jungian Analysis of Westworld Towards a Potential Design Pedagogy* is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Courtney Jade de Villiers

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ABSTRACT & KEY TERMS

This study explores the potential pedagogical value Jungian strategies may bring to creativity studies and design education. The study is largely interdisciplinary insofar as it draws from several disciplines including information design, visual studies, analytical psychology and education. Carl Jung's psychology of art puts forward two modes of creative expression namely: the Psychological and the Visionary. The aim of the study is to establish a distinction between these two creative modes in their use of and approach to images, as well as analyse the interplay between these modes during the creative process, suggesting that engagement with both creative modes may lead to the creation and consumption of images that are inherently more meaningful.

Westworld (2016) is selected as a creative text to analyse within Jung's dialectical framework of Psychological and Visionary creativity. This text affords two layers of analysis which support the overarching aims of the study. Firstly, it allows for exploration of the mechanisms used for and toward creative development in the show which can be understood as a creative production in and of itself. This mirrors a possible approach for students working towards the production of creative outputs. Secondly, it serves as an analogical analysis of indicators of Visionary and Psychological creativity demonstrating the potential of Jungian thinking for approaching real-world creative pedagogy. This mirrors a possible approach for art and design educators assessing, facilitating and developing briefs for creative productions.

Jungian developmental theory is synthesised with Piagetian constructivist learning theories and scaffolded upon real-world examples of existing design programmes that already employ these strategies. This ultimately aims at providing educators with possible analogical insights and strategies, and students with conceptual tools towards supporting creative transformation and deeper engagement with the meaning-making process within design education.

Key Terms: Creativity, Jung, Images, Meaning-Making, Image-Making, Art and Design, Archetypes, Visionary, Psychological, Design Education, Constructivist Pedagogy, Piaget, Westworld.

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ACKNOWLEDGMENTS

V. The Hierophant

Duncan

Thank you for your patience, guidance and insights. And for the profound influence you have had on my own teaching and creative practice.

DEDICATION

X. Ten of Cups

Mom & Dad

"In yon narrow path a thousand
May well be held by three."
- 'Horatius at the Bridge' by Thomas Babington Macaulay

I am eternally awed by and aspire to your generosity of spirit, your absolute tenacity and your commitment to every endeavour. With these lessons, you have given me the most wonderful foundation from which to confront the cosmos. Thank you for loving and supporting me unconditionally.

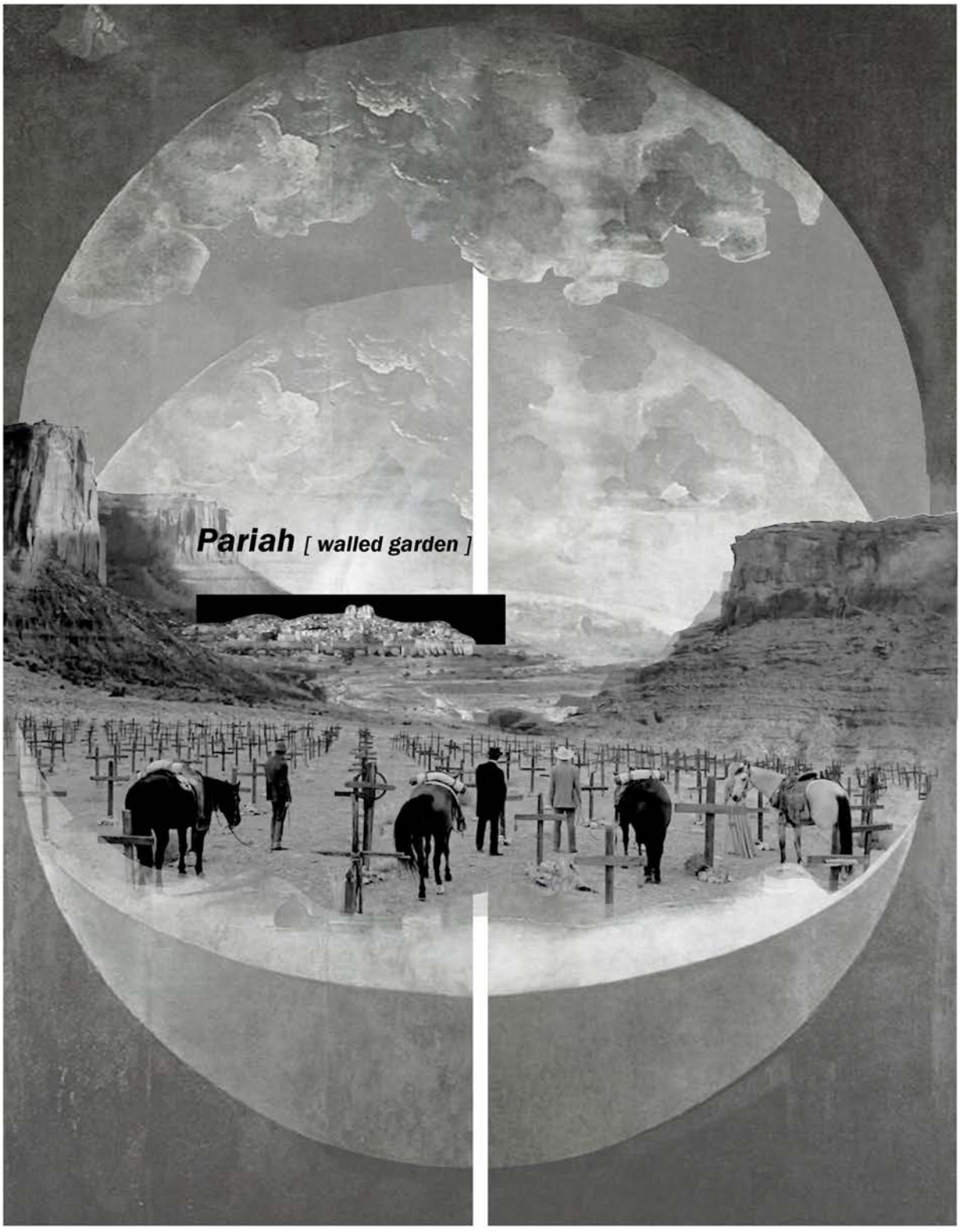
II. Two of Cups

P

"Thrall only to these endless ages, these words in their ancient tongue:
Eternity's leash be thy compass, beloved. Let the tether guide ye thence.
To a more undying grove, a truer forest than yet you've known."
- 'The Sea Weaver' by Wickerbird

For the towers we've built and the gardens we've wandered, for the threads we've spun and the ones that bind us, and for holding my hand through every maze. Thank you.

A.E. Waite, *Rider Waite Tarot Deck*, 1910. Illustrated by: Pamela Colman Smith



"Your mind is a walled garden. Even death cannot touch the flowers blooming there."

-Robert Ford

GLOSSARY

The following list of terms is adapted from Daryl Sharp's *JUNG LEXICON: A Primer of Terms & Concepts* (1991) unless otherwise indicated. Most terms are expanded upon in greater depth and context in the body of the study.

ACTIVE IMAGINATION. A cognitive methodology in which there is a conscious intention to engage with unconscious content such as dreams, visions and fantasy during waking life by focusing on something and then allowing that something to have a life of its own. This engagement often manifests itself in some form of creative self expression.

ANIMA. The personal complex and archetypal image of femininity within the masculine psyche. The anima is often a mechanism for projection of content and complexes that have not been made conscious.

ARCHETYPE. Primordial, structural elements of the human psyche and refers to "unconscious predispositions" (Jung 1969:78) or constellations. An archetype should not be confused with archetypal images. The image is not the archetype, rather the image is informed by and grants access to the principles of the archetype.

ARCHETYPAL IMAGE. The form (images, motifs, patterns, and symbols) in which the archetype is represented within consciousness. While there are countless archetypal images in existence, the ones pertinent to this study are taken from Carol Pearson's (2012) twelve archetypes and are listed as follows:

> ARCHETYPAL IMAGE - CHILD. The primary association with the child is innocence and vulnerability. The child is undifferentiated and is therefore boundless in potential.
>
> ARCHETYPAL IMAGE - CREATOR. The creator relates to the concepts of the artist, designer, innovator, poet and all those concerned with imagination and creative expression. The creator is tasked with the making of culture and meaning.
>
> ARCHETYPAL IMAGE - HERO. The hero seeks to better the world and in so doing betters him or herself. The hero manifests in many ways including the warrior or soldier, the athlete and the one who slays the dragon. The hero is willing to defend and rescue, protect and sacrifice.
>
> ARCHETYPAL IMAGE - MAGICIAN. Shamans, medicine men or women, witches, wizards,

alchemists and more recently scientists are common forms of the magician. The magician has seemingly uncanny insight into the structure of the world and the ability to magically manipulate it.

ARCHETYPAL IMAGE - RULER. The ruler is associated with power and leadership. Manifestations of the ruler include the king or queen, the president, the CEO or the judge. The ruler is commanding and responsible for maintaining order.

ARCHETYPAL IMAGE - SAGE. The sage is associated with wisdom and knowledge and manifests in the form of teachers, researchers, scholars and story-tellers. The sage seeks to discover and understand the world through intellect and intelligence.

COLLECTIVE UNCONSCIOUS. A structure within the human psyche that contains inherited elements and latent memories from humankind's ancestral and evolutionary past. The content within the collective unconscious is not shaped by personal experience and is therefore distinct from the personal unconscious. The collective unconscious is populated with "mythological motifs or primordial images" that are, in Jung's view, universal to all of humankind.

COMPLEX. "Feeling-toned" clusters of images around focal points or nodes, often archetypes, within the psyche.

ENANTIODROMIA. A dialectical condition in which a strongly held position initiates the emergence of an equally strong counterposition. This phenomenon is also referred to as the "emergence of the unconscious opposite" over a course of time.

DAIMON. Jung (as cited by Sharp (1991)) describes the daimon as a "numinous imperative which from ancient times has been accorded a far higher authority than the human intellect". It can be understood as an urgent, overwhelming and sometimes irrational call toward a particular end or purpose.

INDIVIDUATION. A psychological process of differentiation informed by the archetypal idea of wholeness. The process involves the subjective integration of both the personal and collective unconscious into consciousness towards the full development of the individual personality.

NUMINOUS. Deeply emotional experiences that pertain to transcendent divinity and transformation. Numinous experiences comprise of three stages: the mysterium (a sense of awe), the tremendum (a sense of

fear) and the fascinans (a sense of recognition and embrace of the transformative power of the numinous).

PARTICIPATION MYSTIQUE. A phenomenon in which an individual enters into a relation in which there is a loss of distinction between the subject and the object. A shared or collective identity emerges that exerts power over the individual.

SELF. A transcendental concept, indicative of a unified wholeness at the centre of the psyche. It encompasses both the conscious and unconscious aspects of personality. Jung believed that there was no essential difference between "the self as an experiential, psychological reality and the traditional concept of a supreme diety" and for this reason sometimes referred to the Self as the "God within us". The Self may also be considered an archetype and is therefore never fully knowable or entirely made manifest. However, encounters with archetypal images invoking the Self often lead to profound psychic revelations and in this way, possess a numinous quality.

SHADOW. Undifferentiated contents of the unconscious that are both good and bad but repressed or unrecognised by the ego. Part of the differentiation required by the individuation process is to recognise the dark aspects of personality. The Shadow may be reffered to as the "Other within us". There is a necessity to consciously confront and integrate the Shadow if psychic wholeness is to be achieved.

SYMBOLIC. Jung considered something to be symbolic only when it contained an unconscious aspect. The unconscious aspect of the symbolic quality exceeds what can be expressed in psychological terms and therefore can never be fully known or comprehended in words and images alone.

WESTWORLD CHARACTERS

The characters listed below are those significant to or mentioned in the study. The summaries describe whether the character is a human or a robot (the robots that populate the park are referred to in the show as Hosts). The Human/Host status assigned here reflects the standing of the character at the end of season one as the study only focuses on the first season of *Westworld*. First names and surnames are used as per the show's convention.

ARNOLD. (Human) Co-creator of the park. Viewers learn that the death of his son has resulted in him pouring himself into his work. He is fixated with trying to develop consciousness within the Hosts. He dies trying to prevent the park from opening.

BERNARD. (Host) Head of Delos' Westworld Behaviour and Programming department. Ford created Bernard as a replica of Arnold after his death. For most of the show Bernard is unaware of the fact that he is a Host.

DOLORES. (Host) The oldest Host in the park and the show's protagonist. Dolores was co-created by both Arnold and Ford. Viewers learn that Dolores and Arnold have a significant father/child or creator/creation bond. Arnold encourages and facilitates Dolores' journey to consciousness.

FORD. (Human) Co-creator and current director of the park. He is highly creative and uncompromising in his vision of the park. He is killed by Dolores in the final episode of the first season of the show.

LEE SIZEMORE. (Human) Head of Delos' Westworld Narrative department. He produces overtly gory and sexualised storylines. His interest is in entertainment and shock value rather than genuine artistic expression.

LOGAN. (Human) Guest and potential investor in the park and brother-in-law to William. He is attracted to the darker, more debauched offerings of the park. In keeping with the tradition of early Western films where white and black hats indicate heros and villians respectively, Logan elects to wear a black hat.

MAEVE. (Host) Madam of the Mariposa Saloon and Brothel. She is one of the first Hosts to question the nature of her reality as she begins to remember other roles she has played in the park, the most significant of which is that of a mother who sees her child die.

MAN IN BLACK. (Human) Majority shareholder in the park. He is violent, morally ambiguous and sinister. He wears a black hat indicating his choice to play a more villainous role in the park, however he does not see his acts as evil because he does not believe the conditions for ethics exist in the park because there is no meaning or consequence to his (or any other guest's) actions. It is revealed that the show operates on multiple timelines and the Man in Black is actually older William, after having come to the park for over thirty years.

TEDDY. (Host) Soldier recently returned home. His back story is not developed in much detail other than guilt over his ambiguous past and a desire to rekindle a romantic relationship with Dolores.

WILLIAM. (Human) First-time visitor, potential investor in the park and brother-in-law to Logan. He is conscientious and strives to demonstrate upstanding personal qualities and high moral values. He elects to wear a white hat indicating his desire to play the role of "the good guy".

TABLE OF CONTENTS

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LIST OF FIGURES

Images listed as being made by author are diagrams compiled using screen-captures taken from *Westworld* (Nolan, J & Joy, L. 2016, "Westworld", Season One).

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CHAPTER ONE: INTRODUCTION

BACKGROUND

Rapid technological development has enabled the expeditious production and consumption of images. The ease with which visual media is produced has arguably generated an excess of images and a deficit of meaning. Over the last five years I have worked as an art and design educator with students ranging from grade eight to honours level. One of the observations that has had the most significant impact on my personal teaching practice during this time is students' seemingly limited engagement with images and the subsequent impact on their creative capacities.

The above statement may seem nonsensical considering that globally image-driven media platforms are growing exponentially. A recent study (Haung & Su 2018:2) shows that *Instagram* is currently the most popular social media application among young people globally, stating that more than 70% of people between the ages of 12 and 24 are *Instagram* users. Another study reveals (Mull & Lee 2014:192) that Pinterest, another image-sharing social network site, is one of the fastest growing media platforms in recent years. Many participants in the study were undergraduate design students who cited 'creativity' as a primary motivation for Pinterest use. The motivational dimension of 'creativity' in the study listed five items, including "To create art", "To show off my photography skills", "To appreciate different lifestyles and photography works", "To seek creative inspiration (such as strange and unique things and cultural and creative designs)", and "To look at current trends".

There is undeniable benefit to be gained from such accessible image resources, particularly to students in creative disciplines, such as art and design. An uptick in emphasis on visual presentation, formalistic qualities, aesthetic sensibility and 'taste' may all be considered positive by-products of increased exposure to images. While

these are fundamental skills in creative disciplines, they only address the surface of the image and in this way, I believe, the engagement with images is limited. The practice of image-making is intricately linked to that of meaning-making. It therefore becomes pertinent for design educators to consider and incorporate interpretive approaches characteristic to other disciplines such as visual culture studies into their teaching practices.

Encouraging students to slow down their consumption of images, to engage with each image in a deliberate and mindful way, and to consider images not only on their surface appearance but to make connections to the various levels of meaning inherent in all images will potentially allow students to deepen their own creative capacities as well as initiate different entry points into the creative process.

This notion finds an apt mirror in Jungian theory which explicitly supports the contemplation of images as a tool to access parts of our inner world, collective meaning, as well as engage with the creative process. Carl Jung's cognitive methodology of active imagination and his theories of symbols, archetypal images and modes of creativity provide educators and students in creative fields with a toolkit with which to renew interest in images, invoke the creative process and begin to engage in a dialogue with the unconscious.[1]

This study does not sit comfortably in any one of the disciplines it draws from. Art and Design, Visual Culture Studies, Education and Analytical Psychology are all disciplines touched on in the study. The interplay of ideas about the significance of images and creativity drawn from these disciplines may also benefit each as they compensate for possible blind spots in each discipline when viewed in isolation. The interdisciplinary nature of the study is employed to arrive at a holistic exploration of the topic at hand and, in so doing, advocates for mindful and holistic creative processes, image consumption and education practices.

1 There is always a danger of premature exposure to the unconscious. The benefit of active imagination is that it allows one to 'turn a friendly face towards the unconscious' while remaining grounded in the conscious realm. By allowing fantasy life to unfold before consciousness, two systems of perceptions are activated. There is adequate familiarity and safety in the conscious system of perception and enough room for creative potential to manifest in the unconscious system of perception.

AIMS AND OBJECTIVES

The study takes its starting point from Jung's distinction between two modes of creativity, namely the Psychological and the Visionary modes.
The study is largely explorative, the primary aim is to establish in what way these two modes of creativity differ in their use of and approach to images. With this understanding in place, the secondary aim is to establish what implications this has on the development of creativity and how one may integrate both modes into creative practices particularly in the realm of tertiary art and design education. This exploration is augmented by Piagetian constructivist pedagogical tools which could possibly facilitate students and educators in design education in gaining access to both of these creative modes. This offers the potential of enriching the meaning-making component of creative work.

In order to achieve these aims the study outlines the following objectives:

A clear definition and differentiation between Jung's two modes of creativity in relation to the individual, the collective unconscious and the meaning-making process will be established. In order to do this, Jung's theory of archetypes and symbols in relation to artistic production and creativity are examined. As creativity is an often subjective and highly individualistic process it is important to acknowledge the unique gifts and perspectives each student brings to their experience of learning and creative exploration. Therefore it is valuable to consider Jung's theory of cognitive functions and the role of individual personality in creative development. Piaget's constructivist learning theory[2] provides a useful mechanism through which to translate Jung's sometimes mythic principles into pragmatic strategies for creative education which is most succinctly synthesised in the work of Jordan Peterson.

Once this theoretical framework has been established it will be employed to analyze a creative text. The text I have elected to analyze is the first season of the HBO series, *Westworld* (2016). The show itself has a strong focus on acts of creation and creative development.

2 It is important to note here that the constructivist framework being referred to is focused on Piaget's model of how learning occurs and new knowledge is acquired, this is explored in more detail in Chapter Four. The framework is not employed to suggest that the collective unconscious and the symbols and archetypes that populate it, are constructions.

The purpose of the analysis is two-fold. Firstly, it allows for an exploration of the mechanisms used for and towards creative development in a fictional narrative which can be understood as a creative production. Secondly, it serves as an analogical analysis of indicators of Visionary and Psychological creativity demonstrating the potential of Jungian thinking for approaching real-world creative pedagogy.

The show touches on a wide range of philosophical and psychological issues that are impossible to address in a single study. This study limits its focus to only three aspects of the show that support the overarching aims of this exploration. Firstly, the show is explored as a creative production in and of itself. Careful consideration is given to the genre, visual motifs, symbolism and intertextual references employed by the show's creators. The show's apparent self-awareness as a creative production adds weight to the endeavour to understand the creative potential to be found in the tension and interplay between the two modes at work in the show. This analysis has analogical value as the mechanisms used to analyse the Psychological and Visionary creative modes at work in the show directly mirror the task of an educator engaging with and assessing the creative productions of an art or design student.

The second consideration of the show will focus on the narrative and will engage in a comparison of two archetypal creator characters. The characters to be explored are the creators of the fictional park: Robert Ford and Arnold Weber. The analysis considers the cognitive functions and personality of each character with the intention of understanding how this corresponds to and influences each character's creative process. It is posited that while Ford seemingly typifies and creates from the Psychological mode, and Arnold[3] seemingly does so from the Visionary mode, creativity exists as a cyclical process between the two modes. It is observed that the transition from one creative mode to the other is facilitated by self-conscious integration of less developed cognitive functions. The assertion is made that when both modes are present there is greater creative potential. It is suggested that while individuals may have a more predominant inclination towards one mode or another, based on personality and cognitive functions, through individual transformation and development both modes can be made accessible.

3 As stated in the character list (VI-VII), first names and surnames are used in accordance with the show's convention.

This is a useful analogy to be drawn for both educators and students in creative fields with the intention of developing self-awareness and awareness of others' creative processes and inclinations.

Self awareness and integration are posited as key to creative transformation from one mode to the other. The show offers a model based on four principles for learning aimed at the integration of both modes of creativity in the form of the character Dolores. As such, the third and final aspect of the show to be analyzed is the analytical and pedagogical tools presented in Dolores' narrative to create a synthesis between Jungian and Constructivist frameworks. This framework, while remaining analogical in the context of this study is posited as having potential beyond the show and in the realm of creative education.

LITERATURE REVIEW - JUNG, ART & CREATIVITY

Jung and analytic psychology emphasise the significance of images, which might lead one to assume a type of innateness of the relationship between artistic production and psyche. Hurwitz and Klenck (2011:17) describe analytic practice as a discipline that "prepares for the spontaneous arrival of images, follows sequences of images and trusts that by engaging with images, meaning emerges". However, Jung's *Collected Works* express conflicting views in relation to art and the psyche. Jung, in his own words, seemed to suffer an "art complex" and self-consciously described his creative life as being a struggle with this complex.

> *I have had much trouble getting along with my ideas. There was a daimon in me, and in the end its presence proved decisive. It overpowered me, and if I was at times ruthless it was because I was in the grip of the daimon. I could never stop at anything once attained. I had to hasten on, to catch up with my vision ... I had to obey an inner law which was imposed on me and left me no freedom of choice. Of course I did not always obey it. How can anyone live without inconsistency? ... A creative person has little power over his own life. He is not free. He is captive and driven by his daimon. When the daimon is at work, one is always too close and too far. Only when it is silent can one achieve moderation* (Jung 1989:356-7).

It seems the primary reason Jung chose to reject the artistic value of his own work was for the fear that it would derail his psychological/scientific pursuit. Some contemporary Jungians go so far as to suggest that it is exactly Jung's inner conflict with his creative life that compelled him towards the development of

"psychology with soul" (Wojtkowski 2015:7). It is apparent that Jung was well aware that to deny the dialogue between his anima and the unconscious through artistic expression was to condemn a crucial aspect of the psyche. As such Jung sought to establish an appropriate relationship between art and psychology. Jung viewed creative productions as "prima materia" - projections of the unconscious for the analyst to unpack. In this way, Jung's views on art became integral to his analytical practice. Jung acknowledged artistic representations, images and fantasies for the access they granted to the deepests stratum of the human psyche as well as their potential for psychic mending and healing. Jung created daily mandalas to record and monitor his own psychic transformations and similarly encouraged his patients to create artistic expressions (Wojtkowski 2015:32). Jung was, however, very cautious in acknowledging the aesthetic value of these types of works, fearing that acknowledging them as "art" would undermine the psychic inquiry at hand. Wojtkowski (2015:32) cites Jung as stating:

> *It is essential that the artistic products of my patients should be considered worthless, otherwise my patients might imagine themselves to be artists, and the whole point of the exercise would be missed. It is not a question of art at all—or rather it should not be the question of art--but something more and other than mere art, namely the living effect upon the patient himself.*

Despite Jung's rejection of an artistic attitude in favour of psychological engagement, it becomes self-evident that he allowed fantasy a prominent position within his own psyche, as is demonstrated by his visionary venture to confront his unconscious and engage with "the mythopoetic imagination" (Jung 2009:208). He recorded his fantasies in the *Black Book* and then later expanded and illustrated them in the *Red Book (Liber Novus)*. While it is clear from the content of these books that Jung was sustained by his creative life and that artistic expression provided solace to him, he remained reluctant, at times even fearful, to immerse himself fully in creative endeavours.

> *My science was the only way I had of extricating myself from that chaos ... I took great care to try to understand every single image, every item of my psychic inventory, and to classify them scientifically ...and to realize them in actual life, ...and to convert insight into them into an ethical obligation* (Jung 1989: 192).

Jung (1966a:137) advises fellow analysts on what he asserts is the appropriate approach to art:

> *We [must] let a work of art act upon us as it acted upon the artist. To grasp its meaning, we must allow it to shape us as it shaped him. Then we also understand the nature of the primordial experience. He has plunged into the healing and redeeming depths of the collective psyche, where man is not lost in the isolation of consciousness and its errors and sufferings, but where all men are caught in a common rhythm which allows the individual to communicate his feelings and strivings to mankind as a whole.*

The deeply ambivalent and often paradoxical sentiments Jung expresses throughout his work may begin to hint at why, even in his most distinctive writings on the topic of art, *Spirit in Man, Art & Literature,* creative life is still examined within a framework of enantiodromia. In various essays Jung characterizes artistic production as stemming from one of two "modes of creativity" (Jung 1966b:73), namely: the Psychological Mode and the Visionary Mode. Before this dichotomy is further unpacked, it is useful to establish a framework of certainties Jung holds about art and creativity.

ART AS COMPLEX

The theory that individuals possess, or perhaps more accurately are possessed by, various "complexes' occurred to Jung during word association tests conducted to examine patients' conscious streams of thought. During the tests individuals were presented with an "incentive word" and were expected to react with a "response word". Jung was fascinated by spontaneous disruptions in the individuals' stream of thought which rendered them temporarily unable to continue the sequence of associations. Beyond the breakdown in dialogue, the test was also able to measure notable differences in response time, heart rate, blood pressure and perspiration (van den Berk 2012:16). Jung (1989:7-8) further notes that the experiment could be reproduced, observing that a series of certain words would reveal a pattern. Jung theorizes that there exists in the psyche clusters of subconscious drives which are surrounded by symbols and concepts, the combinations of which are specific to the individual. He calls these clusters "complexes' which act as focal points or nodes of psychic energy in the subconscious which can influence and alter the conscious behaviour of the individual. The clusters of psychic energy are often described as "feeling toned" (Sharp 1991:19) and hold a strong affective quality and resonance.

Sigmund Freud also puts forward a "complex theory". However, his asserts that there is only one complex: the sexual complex. He believes that while this complex may manifest itself in various guises, the root cause remained the same (van den Berk 2012:19). Freud therefore suggests that artistic production is the result of suppressed sexual energy and all creativity is mere sublimation.

Jung's findings, however, mark a stark divergence in his conception of complexes from that of Freud. Freud's belief that all psychic phenomena resulting from complexes such as art, philosophy and religion is "nothing but the repression of the sexual instinct" is described by Jung (1966a:50) as being overly negative and reductive. Instead, Jung (1966a:98) offers the term "autonomous complex" to the language of analytical psychology. An autonomous complex is a living aspect of the psyche which is separate from and lives outside of the structure of consciousness. Depending on the psychic energy it possesses, an autonomous complex may manifest itself in small disruptions of conscious behaviour or as a more dominant authority over the ego in its entirety. Jung identifies the desire to create, the creative process or the creative impulse as one such autonomous complex (1966a:98). Describing the creative impulse as an autonomous complex suggests that it remains latent or subliminal until it has developed enough energy to "carry it over the threshold into consciousness" (Jung 1966a:103). It is important to note that this coming to consciousness is only a perceptual awareness of the autonomous complex and not a mastery of it.

CREATIVITY AS AUTONOMOUS COMPLEX

Describing complexes as being autonomous (Jung 1966a:50) imbues them with a sense of independence insofar as drives, emotionality, intent and will are concerned. To imagine these psychic energies as having drives and a will of their own, which manifest themselves in the embodied behaviour of the conscious individual is to acknowledge the power of complexes beyond conscious control. The autonomous complex and its subsequent drives may be in direct conflict with the conscious desires and values of the individual. Jung (1966a:169) exemplifies this with the creative drive which he terms "creative fire":

> *The artist's life cannot be otherwise than full of conflicts, for two forces are at war within him on the one hand the common human longing for happiness, satisfaction and security in life, and on the other a ruthless passion for creation which may go so far as to override every personal desire… There are hardly any exceptions to the rule that a person must pay dearly for the divine gift of the creative fire. It is as though each of us were endowed at birth with a certain capital of energy. The strongest force in our make-up will seize and all but monopolize this energy, leaving so little over that nothing of value can come of it. In this way the creative force can drain human impulses.*

When the creative individual is 'seized' in this manner they are said to be engaging in participation mystique, or mystical participation - a term Jung borrowed from and expanded upon French anthropologist, Lucien Lévy Bruhl. Participation mystique essentially suggests that the most primordial state of the unconscious is one in which there is no differentiation between the subject and the object (Jung 2017:9). Jung (2017:74) describes the earliest civilizations as having no concept of the individual. In place of individual identity stands only a collective relationship and understanding of the environment and objects one is surrounded by. In this state one takes on an archetypal identity and is made subject to symbols of the unconscious. Jung further theorises that the creative impulse and its productions are always related to affect and sensuous feeling and therefore must stem from a state of participation mystique in which the creative individual has undertaken a shared, even if only partial, identity with the sensed object. This shared or collective identity often manifests itself in a strong dependence or compulsion towards the object, as described in the quotation above.

Jung likens the compulsion to create to the autonomous complex at the root of religiosity (Van den Berk 2012:20). Both the drive towards creation and religiosity are typified by the desire for transformation which results in a type of divine ecstasy. Jung frames both of these as an engagement with the numinous experience. The concept of the numinous put forth by Jung (1963: 416) draws from the same term coined by Rudolf Otto in *The Idea of the Holy* (1958) and refers to profoundly emotional experiences that pertain to transcendent divinity. Jung's understanding aligns itself closely with the original explanation of these phenomena. Otto (1958) uses the term numinous to describe three aspects or moments of holy experiences: "the mysterium, the tremendum and the fascinans".

The *mysterium* refers to the moment one recognises that they are encountering the unknown, that they have entered the realm of the unfamiliar and have transgressed beyond the boundaries of their own knowledge and understanding. Otto (1958:28) describes this striking incomprehension as being the "Wholly Other" that calls into question not only the specific unknown being encountered but all previous knowns too, because they are seemingly irreconcilable with this new unfamiliar. This recognition is followed by the *tremendum* in which one is overcome by fear and awareness of the transformative (but also often debasing) potential of such a powerful unknown. There is the potential of real threat that is perceived during this aspect of the numinous experience - the proverbial "fear of God". The *fascinans* must, however, outweigh the *tremendum* for the experience to be truly numinous. It refers to the positive and appealing aspects of transformative power and is the aspect of the numinous in which one surrenders and sacrifices previously held knowns so as to experience a type of divine ecstasy in being reconciled with this new transcendance/transformation.

Jung describes both participation mystique and the numinous as encounters with the unconscious. In this way it becomes evident that several parallels can be drawn between participation mystique and the experience of the numinous. Acting on the creative impulse, engaging in active imagination, endeavouring to create a work of art or simply taking time to analyze one's dreams and other symbols are all instances of the creative individual being driven by and towards the numinous experience of participation mystique.

SYMBOLS & ARCHETYPES IN ART

Jung's framework and meditations on symbols and their significance permeate his writings. Art, in all its forms, and analytical psychology are equally concerned with the language of symbols. It is useful to establish a Jungian base from which to analyse the symbols to be presented in later chapters.

In *Man and His Symbols* (1964), Jung frames symbol as a mechanism which enables one to "approach the unconscious". He suggests that a symbol can manifest in various forms - in a word, a name or a picture that draws from the realm of the known and the familiar but always held within it an element of the unknown. This

can be thought of as the connotative meaning beyond the literal or descriptive quality of the symbol. Jung (1964:21-22) considers a word or image symbolic only when "it implies something more than its obvious and immediate meaning … It has a wider unconscious aspect that is never precisely defined". This surplus of meaning is found in the unconscious aspect and that which is beyond what is fully known or comprehended in words and images is the symbolic quality. In this way the symbols themselves act as guides to access the realm of the unconscious.

Not only do symbols guide one to the contents of the unconscious, symbols are what constitute the collective unconscious. Jung (1969) arrives at this assertion based on the similarity of symbolic motifs he observes in various expressions of "creative fantasy" including religion, myths and artworks of different cultures across time as well as in the dreams of his patients. The recurring patterns he observes between these ancient and contemporary images are thought to be the result of psychic structures in the unconscious common to all humans regardless of contextual specificity. Jung (1969:78) calls these patterns images and expands the term to also encompass activities and situations which are typically human and hypothesizes that these images are primordial in nature. He goes so far as to describe these images as:

> *show[ing] close analogies with the type of dream that the primitive calls a 'big dream'. Unlike ordinary dreams, such a dream is highly impressive, numinous, and its imagery frequently makes use of motifs analogous to or even identical with those of mythology. I call these structures archetypes because they function in a way similar to instinctual patterns of behaviour. Moreover, most of them can be found everywhere and at all times* (Jung 1969:67).

As such, Jung (1969) theorises that these psychic structures are inborn within each individual and inherited, not genetically but rather the archaic heritage of mankind in a broad sense. This assertion forms the basis of Jung's theory of archetypes - a term Jung (1969:79) himself sees as analogous to Plato's theory of forms, Adolf Bastian's "elementary ideas" and Hubert & Mauss' "categories" of imagination. The archetype itself refers to "unconscious predispositions" (Jung 1969:78) or arrangements. Although Jung considers archetypes to be very real psychic structures, they are not tangible. Rather, archetypes manifest themselves in symbolic representation. The formal quality and content of the symbol may vary, based on cultural and contextual factors, however, the archetypal root of the image remains widely unchanged, as is supported by Jung's (1938:sp) statement that:

> *There is no doubt that there is something behind these images that transcends consciousness and operates in such a way that the statements do not vary limitlessly and chaotically, but clearly all relate to a few basic principles or archetypes.*

Eric Neumann, a student of Jung, expands this idea in *The Origins and History of Consciousness* (1949) by suggesting that within the collective unconscious, multiple symbols cluster around the image in a particular arrangement so as to reveal the various sides or complexities of the archetype. The image is not the archetype itself, but rather is the symbol which reveals the archetype to the conscious. The archetype is "irrepresentable" according to Jung. As such one can never wholly represent the archetype; rather one can only visualize its effects, symptoms and characteristics in the form of the archetypal image. It is also important to note that the archetypes are multifaceted and therefore not inherently "good" or "bad" - rather, each archetype possesses its own set of both positive and negative qualities. Jung describes four "core" archetypes: the Self, the Shadow, the Persona and the Anima/Animus. These can be seen as meta-archetypes as they encompass within them the psychic manifestations of other archetypal images. Each of these can be further extended into an archetypal orientation such as the yearning for freedom or paradise, the desire to order and structure the world, the sense of belonging and the drive towards achievement. Jung (2005) suggests that there are innumerable manifestations of the archetypes but put forth a preliminary exploration of only four: the mother, the concept of rebirth, the spirit and the trickster.

At this point, I would like to extend my exploration of archetypal images beyond Jung to other noteworthy Jungian theorists. The intention of this extension is to establish a framework in which to unpack several characters from *Westworld*, in later chapters, in order to illustrate how the two modes of creativity are made manifest in the show.

There is a notable influence of Jung's theories in Joseph Campbell's (2004) *Hero with a Thousand Faces* in which he identifies that while mythologies are culturally specific, they hold similar narrative motifs and social functions, and in that way can begin to mirror one another. This suggests that mythologies and the characters encountered within them are not merely culturally or socially constructed but rather, draw from a deeply rooted, collective recognition of archetypal patterns. Campbell puts forth the

archetypal story of "the hero's journey" or "monomyth". While this pattern is easily recognised in creative productions, particularly those with a narrative structure such as literature and film, the hero's journey is equally applicable to the less literal journey each individual undergoes in making conscious the content of the unconscious or the individuation process. Within the structure proposed by the monomyth, several archetypal situations and characters are introduced, occupying the domains of both the known (familiar) and unknown (unfamiliar). Archetypally, the hero (this can be understood as the subject) encounters the following series of situations: existence in the ordinary world and subsequent departure spurred on by the call to adventure outside established framework of the ordinary world, hesitancy or refusal of that call and supernatural aid in the form of meeting a mentor or receiving a gift which allows one to overcome initial reluctance and allows or forces one to cross the threshold of the ordinary world into the "special world" or domain of the unknown. The next phase of the journey refers to initiation in which the hero must become orientated in this new and unfamiliar realm through tests and trials, gaining the ability to descend deeper into the unknown domain. In these dark depths the hero undergoes an ordeal or crisis significant enough that their previous Self begins to disintegrate, and is reformed into a more capable, integrated and insightful Self. This stage of the journey can be understood as symbolic of rebirth or "the life/death/life cycle" (Estes 1992:127). Through this rebirth and transformation, the hero arrives at the ultimate boon which is the recognition of unlocked potential. However, recognition alone is not enough - the unrealized potential must be made manifest and integrated in the world, prompting the hero's return to the known or "ordinary world" where ultimately resolve is found.

During the course of the journey, one also encounters archetypal characters who serve different functions compelling the hero onward. Campbell (2004) outlines seven archetypal figures and their functions. The hero is the vehicle of psychic energy and transformation, the Self willing to sacrifice and be sacrificed. The mentor guides, equips and encourages the hero. The threshold guardian serves as the obstacle or barrier from the ordinary to the special world, it is associated with the Shadow and veils the boundary between the conscious and unconscious realms. The herald signals change and issues challenges to the hero. The shapeshifter deceives and raises doubts within the hero. The Shadow can manifest both within the hero or without in the form of enemies and villains working towards destructive ends. And

finally the trickster disrupts the established order and stands as a harbinger of chaos.

Carol S Pearson scaffolds on the work of Jung and Campbell in *The Hero Within* (1989), in which she proposes six archetypal figures and then further expands on these in *Awakening the Hero Within* (2012) to arrive at a final number of twelve archetypes - which are the guises in which archetypes are most commonly recognised today. In addition, Pearson also categorises the various archetypes as performing different functions within the hero's journey - The innocent, the orphan, the warrior and the caregiver are archetypal characters cast with the task of preparation. The seeker, the destroyer, the creator and the lover engage the journey. Finally, the ruler, the magician, the sage and the fool enable the hero to return home.

It becomes apparent that there is a significant and intricate link between symbols and archetypes. In extending this relationship to the activities of creative production it is useful to refer to the concept of fantasy thinking, which Jung explores in *Transformations and Symbolism of the Libido* (1912). Fantasy thinking centres on mythical images which connects one to the unconscious. In this way archetypal symbols are at the core of fantasy thinking and fantasy thinking is the vehicle for the creative impulse as an autonomous drive (as described earlier). Fantasy thinking, the human propensity towards making and interpreting images, is inherent to the creative fire.

JUNG'S PSYCHOLOGY OF ART

The Spirit in Man, Art and Literature (1966a) is the text in which Jung most explicitly articulates his thoughts on art. He refers primarily to literary works but argues that the contents can be expanded to any creative pursuit. Here, Jung puts forth the argument that artistic production can be categorised by two "modes of creativity": the one he terms Psychological and the other, Visionary. In this way Jung provides a binary framework within which to explore and interpret the contents of artistic productions as well as gain insight into the creative motivation behind them. Jung, however, is not the first to propose such a comparative structure in establishing an understanding of creativity and self-consciously draws from and makes comparisons to poet and philosopher, Friedrich Schiller's (1795) theory of *Naive and Sentimental* forms in poetry as well as Wilhelm Worringer's (1908) *Abstraction and Empathy*. As such, elements of those theories will also be included in the discussion so as to allow

for greater understanding of Jung's framework.

PSYCHOLOGICAL MODE OF CREATIVITY

The primary characteristic of the Psychological mode is that it draws from the conscious realm of the individual. In this mode the creative process is driven by the subjective experience of everyday, conscious life and includes instances of personal sentiment, sensation and suffering (Jung 1966a:116). Complexes rooted in the personal unconscious, but that the creative individual is consciously aware of, also serve as a source of "material" in the Psychological mode. Jung also asserts that the vivid awareness of conscious life manifests a strong sense of conviction and deliberateness in the Psychological mode of creative process:

> *He submits his material to a definite treatment with a definite aim in view; he adds to it and subtracts from it, emphasizing one effect, toning down another, laying on a touch of colour here, another there, all the time carefully considering the over-all result and paying strict attention to the laws of form and style* (Jung 1966a:94).

The above quotation emphasises that intentionality is at work at every level of the Psychological mode. This intentionality driving the creative process presents clear hallmarks of the characteristics attributed to individuals who are traditionally thought of as creative such as artists, designers, poets, directors and musicians. Artworks of this nature possess the power to transform the experience of the mundane into a meaningful encounter which provides deepened insights into the nature of everyday existence. The artist creating from the Psychological mode elevates the ordinary and mundane to the realm of art in such a way that the contents is clarified and laid bare. In doing so, the Psychological artist leaves no shroud of obscurity or ambiguity, there is no further interpretive work to be done on the part of the viewer. Rather, the viewer is presented with a deepened recognition of that which is already known and understood but perhaps had not yet been fully expressed. Jung (1966a:117) terms this mode of creation Psychological because it encapsulated themes common to conscious and well-documented everyday experiences and therefore "it remains within the limits of the psychologically intelligible ... Everything it embraces belongs to the realm of a clearly understandable psychology".

Individuals creating from the Psychological mode can often be considered introverted in attitude. Jung likens his categorisation of introversion to Schiller's notion of the sentimental - which is characterised by "the subject's assertion of his conscious intentions and aims against the demands of the object" (1966a:73). Simply stated, the artist purposefully shapes and actively controls the creative production. Jung expands upon Schiller's thinking in stating that creativity, in Psychological/ introverted/sentimental instances is drawn from the object which is perceived or mediated by the artist and in that way creativity is ultimately drawn from the artist him/herself. Jung (1966a:196) states that for the creative individual working in this mode "the external impression of the object is not something absolute, but material which he handles as directed by his own contents". This suggests that the relationship between the creator and the object is not participatory but rather a type of power the Psychological creative commands over the object. The introverted/ sentimental attitude which is characteristic of the Psychological creative is motivated by intuition. Intuition removes one from the object exactly because it seeks to establish command over that material (Jung:1966a:197). This distancing between the creative individual and the object can be viewed as a process of abstraction as the Psychological creative is actively and consciously manipulating the material to fit with his or her own perspective.

VISIONARY MODE OF CREATIVITY

The second mode of creative process put forth by Jung (1966a) is termed Visionary. This mode expands beyond the subjectivity of personal consciousness and experience of the Psychological mode, and derives its influence from the realm of the collective unconscious and archetypal images. It is not to say that Visionary mode disregards the artist's subjective intentions and experiences but rather, it operates from a space of tension between the artist's conscious and the creative force of the collective unconscious (Jung 1966a:132). Jung (1966a:133) tasks the Visionary creative with being the "collective man", thus suggesting that in this role the creative individual becomes an embodied tool of the collective unconscious and in so doing, draws from the primordial and archetypal in order to make manifest the psychic ethos of the age. In this way Visionary creative productions are not made solely from the artist or designer but rather they are created by a shared unconscious source that channels itself through the artist's consciousness, transcending the limitations of

the artist's subjective concerns, to fulfil a type of unconscious obligation to material buried within the psyche .

> *Whenever conscious life becomes one-sided or adopts a false attitude, these archetypal images 'instinctively' rise to the surface in dreams and in the visions of artists and seers to restore the psychic balance, whether of the individual or of the epoch* (Jung 1966a: 104).

Individuals creating from the Visionary mode can often be considered extroverted. In opposition to the sentimental this mode operates from the perspective Schiller described as being "Naive" which is characterised by the "subject's subordination to the demands which the object makes upon him" (Jung 1966a:96). That is to say the psychic material driving the creative process springs forth from the unconscious, and is made manifest despite conscious will or preferences of the individual. This zealous possession of the subject by the creative drive can be understood as absolute immersion in participation mystique. In this immersion the subject is pushed beyond the boundaries of the consciously known and into the chaotic and dark waters of the unconscious. Here, psychic material is unfamiliar and veiled. Jung (1966a:118) describes it as deriving "its existence from the hinterland of man's mind, as if it had emerged from the abyss of pre-human ages". In this way, one becomes subject to primordial forces which exceed culturally constructed understanding however remain rich with meaning. The experience is both sublime and terrifying and numinous, granting the subject who creates from this mode access "into the unfathomable abyss of the unborn and of things yet to be ... a vision of other worlds, or of the darknesses of the spirit, or of the primal beginnings of the human psyche".

Jung does not favour one mode of creativity as being superior to the other, nor does he believe that the two are able to exist in complete isolation from each other. Rather, Jung suggests that both modes are present in every creative production to greater or lesser extents. Van den Berk (2012:45) cites Jung as stating, "both are needed for any real appreciation of the object as well as for artistic creation. Both are always present in every individual, though in most cases they are unequally differentiated." Jung (1972:107-108) further expands on this idea by drawing a comparison between creativity and the growth of a plant, clearly situating even Jung's aesthetic musings solidly in the realm of developmental psychology.

> *The plant is not a mere product of the soil; it is a living self-contained process which in essence has nothing to do with the character of the soil. In the same way, the meaning and individual quality of a work of art inhere within it and not in its extrinsic determinants. One might almost describe it as a living being that uses man only as a nutrient medium, employing his capabilities according to its own laws and shaping itself to the fulfillment of its own creative pattern.*

It is exactly the sentiment expressed in this quotation that underscores the exploration of the pedagogical potential Jung's theories bring to creativity training in art and design disciplines.

CHAPTER TWO:
WELCOME TO WESTWORLD

AN OVERVIEW OF THE SHOW AS A CREATIVE PRODUCTION

This chapter serves as an introduction to first season of the HBO series, *Westworld* (2016), created by Lisa Joy and Jonathan Nolan. The show has a strong focus on the individuation process, acts of creation, and how the two augment each other. This makes it an ideal text to analyse in terms of a Jungian perspective on creativity. The content presented seeks to explore the tension between the Visionary or Psychological modes of creativity present in the show as well as examine how this tension adds additional layers of meaning to the images presented in the show. In order to do this, the narrative and meta-narrative of the show is considered. The show is also situated in terms of genre and how genre may also reveal clues as to the mode of creative production. Finally, content and symbols in the title sequence will be analyzed as this provides insight into how the show attempts to situate itself. In terms of broader objectives of the study, this chapter serves as a pragmatic application of visual analysis and active imagination to consider how deepened levels of meaning can be discovered in the contemplation of images. It is demonstrative of how students and educators in creative fields may employ either or both creative modes in their engagement with images to arrive at new meaning.

A literature review informs an interpretive reading of the show on both a visual and analytical level. The primary criterion used to classify the work is intertextuality. The term 'intertextuality', as coined by Kristeva, can be understood as the intersection of texts as well as the channels between texts that interchange or transpose one another (Kristeva 1984: 59–60). The term was first presented in Kristeva's 1969 text *Word, Dialogue and Novel* (as cited by Moi 1986:35) in which it is suggested

that "intertextuality is a mosaic of quotations; any text is the absorption and transformation of another". Intertextuality as a means of categorising modes of creativity is intentionally ambiguous in so far as intertextuality may arguably indicate either mode of creativity - The Visionary would argue that intertextual references are evidence of archetypes of the collective unconscious, while the Psychological would argue intertextual references require mindful and deliberate manipulation of pre-existing symbols to provoke a particular response.

The symbols presented in the show, as with any creative production, occupy a complex hierarchical structure and therefore meaning is neither solid nor singular. The presence of intertextuality is not so much the indicator of the creative mode but rather, what type of texts are being referred to. The scale or degree of these intertextual references is also to be considered as a single image or symbol may refer to more than one other text creating additional layers of meaning. The intention is not to categorically declare the show as belonging to one mode of creativity at the entire exclusion of the other - but rather, it is to establish how each creative mode manifests in the show while still acknowledging and crediting aspects of the other mode, as well as the interplay between them. The same images in the show may be analysed in terms of both creative modes and this ultimately creates additional layers of meaning for the images engaged with.

BRIEF SUMMARY OF WESTWORLD PREMISE

The HBO series *Westworld* (2016) is loosely based on Michael Crichton's 1973 film of the same name. The basic premise of the series presents the audience with a Western themed park in an unspecified, technologically advanced future. The park serves as wholly immersive escape for the guests who pay to visit the park and live out their "gunslinger" fantasies. Along their adventures, the guests or "new-comers" encounter "Hosts" - incredibly life-like robots, embodying various Western character tropes built to populate the park and activate various storylines and quests the guests may follow. The only rule in the park is that robots may not harm the guests, a rule that is written into the very code of the Hosts. The guests, however, are able to engage with the Hosts in any way they desire, ultimately resulting in often explicitly violent or sexual interactions, reaffirming the park slogan that within the Westworld park one can "live without limits".

The daily subjection to the guests' debauched fantasies are erased from the Hosts' memories and they are reset daily to follow their pre-scripted story "loop". The physical creation and restoration of the Hosts, their pre-programmed backstories, character development, the narrative loops and both scripted and improvised responses are closely monitored and managed by the employees of Delos from their corporate compound called the "Westworld Mesa Hub". [4]

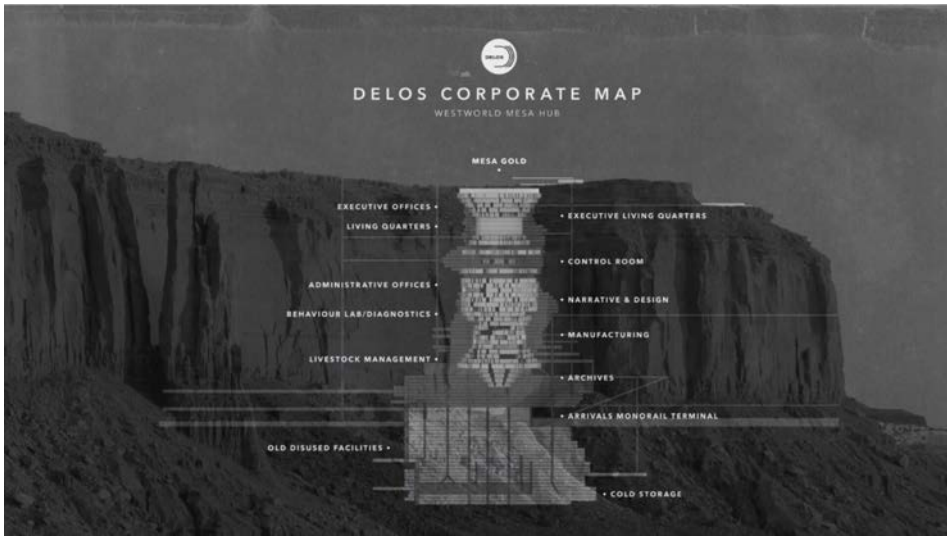


Figure 1: Delos Corporate Map, 2016 (Discover Westworld ARG 2016).

The Hosts are repaired and updated regularly. Upon the viewer's entry into show it is suggested that the latest update to the Hosts includes a special new code called "reveries". The naming of this code is important as it foreshadows the events that unfold throughout the season. A reverie can be understood as a daydream or the state of being lost in one's thoughts. However, the term takes on additional layers of meaning within the context of psychoanalytic practice. Ogden (2004:1355) situates the function of reverie as follows:

> *The quintessential manifestation of the psychoanalytic function of the personality is the experience of dreaming. Dreaming involves a form of psychological work in which there takes place a generative conversation between preconscious aspects of the mind and disturbing thoughts, feelings and fantasies that are precluded from, yet pressing towards conscious awareness.*

4 The hub itself is only seen in terms of its interior spaces in the show and its physical relation to the park is unclear other than the fact that one can access the park from the hub. During the airing of the show, HBO released an alternate reality game (ARG) for the show which included diagrams and maps of the park and its facilities. The name Mesa invokes the image of an isolated and flat stratum utop a hill or mountain, which also hints at the location of the Delos hub.

The notion that unconscious dreams and memories lead one closer to conscious awareness is exactly what activates the narrative arc in the first season of *Westworld*. The encoded reveries appear to the Hosts as spontaneous, often fragmented or dazed, dreams, memories, visions and premonitions drawing from the various interactions, story loops and characters the Hosts have embodied. The reveries are explicitly acknowledged as being the first building blocks of consciousness in the show. Initially the Hosts' journey towards achieving consciousness is envisioned as a triangular model in which memories (reveries), improvisation and self-interest are scaffolded. As the season continues and several Hosts move closer to becoming fully conscious, the model is re-imagined as a circle or maze. A flashback to Arnold (Nolan, J & Joy, L. "The Bicameral Mind", Westworld), one of the park's creators reveals the following:

> *I had a theory of consciousness. I thought it was a pyramid you needed to scale. So I gave you a voice, my voice, to guide you along the way. Memory, improvisation, each step harder to reach than the last. And you never got there. I couldn't understand what was holding you back. Then, one day, I realized I had made a mistake. Consciousness isn't a journey upward, but a journey inward. Not a pyramid, but a maze. Every choice could bring you closer to the center or send you spiraling to the edges, to madness.*

"The Maze" is not only significant for the Hosts but for many of the human characters as well - it becomes clear that the guests in the park, and the viewers of the show by extension, lead lives that are also based on repetition and compliance, much like the narrative loops of the Hosts. The Maze therefore comes to represent not only the quest for consciousness but a search for meaning as well. As such, the various characters undergo different literal and figurative journeys to find the centre of the Maze. The aspect that emerges as a common and crucial thread to each character's journey is suffering. This notion that is alluded to in the very first episode of the show when the Man in Black states "When you're suffering, that's when you're most real" (Nolan, J & Joy, L. "Chestnut", Westworld) and is returned to and affirmed in the final episode in Ford's statement "it was Arnold's key insight, the thing that led the Hosts to their awakening: suffering. The pain that the world is not as you want it to be. It was when Arnold died, when I suffered, that I began to understand" (Nolan, J & Joy, L. "The Bicameral Mind", Westworld).

At face value, the show appears to be about the potential of artificial intelligence, questioning human morality and exploring the origins of consciousness but upon

deeper consideration, the show employs these themes as tools to become a self-conscious meditation on creativity itself. This becomes an evident meta-narrative or "meta-mythology" (Peterson 1999:61-62) when key mechanisms like genre and symbols utilized are examined in closer detail. A clear Jungian undertone also emerges and as such, the Visionary and Psychological modes of creativity engaged in and by the "meta-mythology" of the show are also highlighted. If creativity is to be understood as creating a type of consciousness there is clear benefit in analysing the show through a Jungian lens as his framework acknowledges and honours the imaginal realm. Not only is there room for actual fantasy thinking in creative exploration, it is in fact actively encouraged.

EXPLORING GENRE IN WESTWORLD

Westworld is rife with anachronisms - it is, after all, a show that plays off in the seemingly old American west of the late 19th century simulated and facilitated by an impossibly advanced, high-tech, undisclosed future. The creators of the show seem to revel in the creative potential that is opened up across the multiple and varying timelines that exist within the show as well as the conceptual layering that is added at the intersection of genres. Genre in the context of this analysis can be seen as a critical term, rather than just a categorisation. Specific genres may provide a sense of familiarity, insofar as outlining the type of characters and situations a viewer can expect to encounter but they are not mere templates for creative productions which rely solely on repetition and variation. Film critic and theorist, Barry Keith Grant (2003:xvi), describes genre as "a system of conventions structured according to cultural values, an idea not dissimilar to what structuralists would later call the 'deep structure' of myth". This definition is useful in so far as it posits genre as a useful conceptual tool with which to address narrative structure, stylistic or aesthetic sensibility as well as social and historical concerns.

The genres the show most strongly draws from are those of Western and Science Fiction films. It is important to acknowledge and explore the significance of these genres in establishing what they bring to a Jungian reading of *Westworld*, and how both genres speak in different ways to both the Visionary and Psychological modes of creativity.

SCIENCE FICTION AS CONTEMPORARY MYTH MAKING

Myths can be understood as ancient cultural narratives – embodiments of cultural wisdom, wisdom that is more phenomenological than it is empirical. Myths often contain clearly recognisable patterns and motifs across a diversity of cultures. The emergence of these patterns across various cultures highlights Jung's theory of archetypes which emerge from the collective unconscious. Campbell (1972:14-15) describes myth as the "picture language of powers of the psyche to be recognized and integrated in our lives, powers that have been common to the human spirit forever". The implication is that myths carry with them a universal quality that speaks to a common human experience regardless of time or culture.

> *We have spent hundreds of thousands of years watching ourselves act, and telling stories about how we act, in consequence. A good story has a universal quality, which means that it speaks a language we all understand. Any universally comprehensible language must have universal referents, and this means that a good story must speak to us about those aspects of experience that we all share* (Peterson 1999:83).

Peterson's emphasis on the universal quality of myth highlights the utility of myth as a tool for both pedagogy and individuation, which goes some distance towards explaining the connection between myth and psyche. Campbell (1972:14-15) goes so far as to suggest that by engaging with myths in a meaningful manner it becomes possible for the individual as well as the culture to become more finely attuned with the Self and all the knowledge of the collective unconscious that resides within. To understand science fiction as a mode of contemporary myth making and telling is to open up the potentiality the genre brings to a Jungian analysis of *Westworld* (2016).

Myths are often ancient stories about archaic gods and miracles, while science fiction, typically includes futuristic stories about technology and otherworldly encounters. The comparison between myths and science fiction may seem an unlikely coupling, however, the structure and intentions of these stories share remarkable overlaps. Clute and Nicholls (1999:sp) suggest that myth manifests in two ways in works of science fiction: namely, archetypes and archetypal stories being reenacted in science fiction and/or new mythologies emerging from works of science fiction. However, the latter is dismissed by Sutton and Sutton (1969:231) who state that myths do not only manifest in science fiction but rather science fiction is a contemporary mode of myth making and telling. If myth and science fiction are to be understood

Figure 2 (Left): MGM, Westworld Poster 1, 1973 (film poster gallery 2019).

Figure 3 (Right): MGM, Westworld Poster 2, 1973 (casa film bar 2019).

as "modes of structuring the universe" (1969:231) then they are, in structure and intention, the same. The fact that archetypes and archetypal scenarios may take on new guises in science fiction does not make them new mythologies - rather, they are new images that convey primordial symbolic meaning. Sutton and Sutton (1969:237) go on to argue that the new guises taken on by archetypes in science fiction are a reflection of a more self-conscious and generation-specific mythopoesis, describing science fiction as: "a myth not meant of a tribe, rather it is the mythology concocted for the delight of technological man".

The original film *Westworld* (1973) upon which the 2016 series is based, was written and directed by Michael Crichton. Crichton was reportedly inspired to write and direct the film after his first visit to Disneyland, where he was intrigued by the animatronic characters on the Pirates of the Caribbean ride. The film itself is set mere decades after the opening of Disneyland and draws clear inspiration in the form of a thoroughly immersive amusement park built around the fantasies and desires of it's visitors. The first difference in Crichton's iteration is in the adult slant on the fantasies that inform the park - some of the original film posters (Figure 2 & 3) used taglines such as "a place where robot men and women are programmed to serve you for … ROMANCE … VIOLENCE … ANYTHING!" and "Live as you like, love as you like... In the fantastic science controlled playground of the future".

The second difference is that in this imagined "playground of the future" the robotic creations in the park gain enough sentience to rebel against the laws by which they are governed, ultimately leading to uncontrolled violence and chaos. These primary plot points raise concerns typical to the science fiction genre. Issues such as what differentiates man and machine, the potential dangers of humans playing God and creators being overthrown by their creations. These concerns are mirrored in *Jurassic Park* (1993), another fictional park imagined by Crichton, as well as other science fiction films like *Blade Runner* (1982), *The Matrix* (1999), *iRobot* (2004), *Prometheus* (2012) and *Ex Machina* (2015), to list a few.

Westworld (2016) expands on these typical science fiction concerns while making several explicit and self-conscious references to classical mythology as well. In the very first episode of the show a character known only as the Man in Black states that there is "a lot of wisdom in ancient cultures". Viewers also learn that the company behind the creation of the park is called Delos, another allusion to classical mythology. Delos is an island believed to be the birthplace of Apollo and Artemis. The island was believed to be so sacred by the ancient Greeks that it was to be kept neutral and uninheritable, disallowing anyone to be born or die there. In 543 BC it was decreed that the island be purified by removing all graves and dead bodies from the island (Ring & Watson 1996:180). The park is a fitting analogy for the island in so far as no humans can be killed there and the Hosts do not die, but are only temporarily decommissioned.

Beyond the overt references to mythology made in the show, *Westworld* (2016) is, at its core, a work of science fiction based on a creation narrative that draws from the Judeo-Christian story of Genesis.

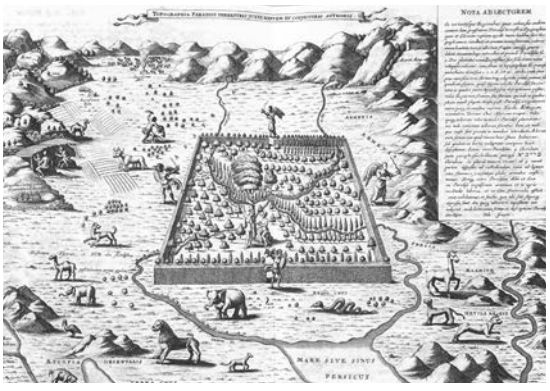


Figure 4: Atanasius Kircher, *Topographia Paradisi Terrestris,* 1675 (City as a Project 2011).

The park itself can be considered a walled garden (Figure 4) - the etymological root of the word "Paradise" is the Avestan word 'Pairi-daēza' and later Latin 'Paradisus' meaning 'enclosed park'. The literal image of a walled garden also occurs in the show, most notably in a section of the park called Pariah, a garden of earthly delights where the protagonist of the show, Dolores, first encounters her Shadow.

The origin of life on earth, as presented in Umberto Eco's *Search for the Perfect Language*, states:

> *God spoke before all things, and said, 'let there be light.' In this way, he created both heaven and earth; for with the utterance of the divine word, 'there was light'. Thus creation itself arose through an act of speech; it is only by giving things their names that he created them and gave them an ontological status* (Eco 1995:7).

This description is directly comparable to one of the park's co-creators, Robert Ford's statement in the first episode of the series that, "We practice witchcraft. We speak the right words. Then we create life itself out of chaos" (Nolan, J & Joy, L. 2016. "Chestnut", Westworld). The Host live in a state of bliss in so far as they have no self-awareness and therefore no sense of shame, no sense of good or evil and they do not endure suffering because the often painful encounters with the guests are erased from their memory each day. Ford explains that the Hosts "cannot see the things that will hurt them. I've spared them that. Their lives are blissful. In a way, their existence is purer than ours, freed of the burden of self-doubt" (Nolan, J & Joy, L. "Tromp L'Oeil", Westworld). This state of bliss is ended by the temptation of self-knowledge or consciousness and seems to be instigated or activated by the whispering of the phrase "These violent delights have violent ends" (Nolan, J & Joy, L. 2016. "Chestnut", Westworld). Dolores' father whispers it to her in the first episode; and in the second, Dolores whispers it to Maeve before each of the characters embark on their own journey towards consciousness. As in the garden of Eden, the transgression is met with punishment in the form of self-awareness and suffering. However, suffering in Westworld comes to represent greater access to the maze or self-consciousness.

In this way, *Westworld* (2016) uses the story of Genesis to address and explore typical science fiction themes such as autonomy versus predestination, if and how ethics can exist under these conditions and ultimately a quest for greater purpose and meaning.

WESTERNS AS NOSTALGIC RE-CREATION & RECREATION

Pye (2003:208) describes the Western genre as one of duality. Films and television shows of this genre simultaneously embody both cultural perceptions of the "American West" as well as the "Frontier". The two are differentiated from one another through the familiar biblical images of the West as a garden of the new world, lush with promise and opportunity and the frontiers as a desert wilderness.

> *If the West was seen as a potential Eden, the garden of the world, it was also seen as the wilderness, the great American desert. The life of the frontier was both ennobling, because it was close to nature, and primitive, at the farthest remove from civilization* (Pye 2003:208).

It becomes apparent that the Western genre draws from a rich vocabulary of archetypal narratives and images. The intent behind the use of these archetypal images within the Western genre differs, however, to their appearance in science-fiction as explored above. Whereas science-fiction employs these images to invoke mythological narratives as a structure to order and create meaning, Westerns employ these images to establish narrative tools to explore nostalgia and desire.

The Western genre focuses on the movement of settlers westward in North American history and generally situates itself in the vast american frontier - a space rich in symbolic binaries such as civilization vs. nature, which extends to settlers vs. indigenous Native Americans and law and order vs chaos. The frontier also came to symbolise American national values such as unbound freedom, sovereignty and the ideal of equality of opportunity (McMahon & Csaki 2010:2-3).

It is crucial, at all times, to be aware that *Westworld* (2016) does not take place during the historical period of the American frontier between the later half of 18th century throughout the 19th century, nor is it made clear to viewers that geographically the park is located in any Western territory. *Westworld* (2016) is a contemporary or futuristic construction and everything presented to guests in the park and to viewers of the show is a fabricated simulation that reimagines the old West. The offerings of the park draw directly from the heyday of the Western genre in entertainment. Tropes common to novels, television shows and films within the Western genre such as gallant cowboys, ranchers, soldiers, bandits, loose women and damsels in distress all find their counterpart in various Host characters within the park. Beyond

the characters in the park living up to these Western staples, there seems to be some meta-awareness of this in the show as well. This is most notably observed in the Delos head of narrative and design, Lee Sizemore's (Nolan, J & Joy, L. "Chestnut", Westworld) latest narrative pitch:

> *Our most skilled guests will fight their ways to the outer limits of the park, besting fearsome braves, seducing nubile maidens, befriending tragically ill-fated sidekicks, and, of course, like all our best narratives over the years, our guests will have the privilege of getting to know the character they're most interested in ... Themselves. I present our guests' next obsession: Odyssey on Red River!*

It becomes clear that the enduring appeal of Western genre, in both the show and in the popular imagination, is anchored in a cultural fascination with the myth of encountering and conquering the vast, wild, unclaimed territories of the Western frontier which were rife with opportunity. The word myth is used here to underscore the fact that these narrative tropes hold little coherence with regard to the historical realities to which they refer. To understand creative productions of the old West as copies that have never had or no longer have an original/reality to which they refer is to situate the Western genre comfortably in the discourse outlined in Baudrillard's *Simulacra and Simulation* (2014) originally published in 1981. The romanticized legacy of the old West speaks most strongly to the interconnected ideas of a nostalgic longing for a bygone era and fantasy as an expression of desire for escape. Baudrillard's (2014:39) declaration that "simulation is master, and nostalgia, the phantasmal parodic rehabilitation of all lost referentials, alone remains" perfectly encompasses both the Western genre at large as well as the manner in which Western themes manifest in the park.

To expand on this, it is useful to revert to the parallel between *Westworld* (both the 2016 series and the 1973 film) and Disneyland explored in the previous section. The series focuses on the adventures of two guests to the Western themed amusement park, William and Logan. Before their entry into the park Logan warns first-timer William, "I know that you think you have a handle on what this is gonna be. Guns and tits and all that mindless shit that I usually enjoy. You have no idea. This place seduces everybody eventually" (Nolan, J & Joy, L. "Chestnut", Westworld).

It becomes evident, from both Logan's statement and the treatment they receive upon arriving at the Mesa hub, that everything in the park is designed to cater to the guests' whims and fantasies. William is led by an attractive female Host to a private suite where she presents him with a large selection of Western clothing and accessories. Here the Host tells William:

> *The only limit here is your imagination. You start in the center of the park. It's simple, safe. The further out you venture, the more intense the experience gets. How far you want to go is entirely up to you ... No orientation, no guidebook. Figuring out how it works is half the fun. All you do is make choices ... starting here. Everything is bespoke and exactly your size ... All our Hosts are here for you* (Nolan, J & Joy, L. "Chestnut", Westworld).

The scene and dialogue relies on the same allure as that of a child playing dress-up or being granted permission to indulge in a game of pretend. The characters are being equipped for the immersive escapism the park offers its guests. This extends to the viewer of the show, who also indulges in the entertainment offered by television - this seems to illustrate an immense self-consciousness on the part of the show and its creators. The anachronisms in the park and show speak directly to the notion of nostalgia, while the potential for debauchery speaks to desire.

There is something underlyingly quite Jungian in this nostalgic yearning and this evocation of the child archetype. This child archetype may serve as an individual's link to their past and aid in recalling childhood experiences and emotions. However, on a more abstract level the evocation of the child archetype serves the symbolic function of the yet unindividuated hero about to confront the unconscious and all the shadowy, chaotic and unfamiliar content that one may encounter, much like the lone cowboy yet to conquer the vast and unknown Werstern expanse.

ANALYSING WESTWORLD'S TITLE SEQUENCE

Georg Stanitzek (2009:44) suggests that title sequences in film and television perform an important and complex function in so far as they serve as an "intermediary zone" through which the viewer can transition or cross the threshold from their own (life) world into the world of and presented by the text. The title sequence gives essential context to the world of the text and provides a lens through which to read the content that follows. Stanitzek (2009:46) goes on to state:

> *To read a title sequence is not to ask for something outside of the cinematic context. On the contrary, from this point of view, that of reading, the specifically divided, always "put together" nature of film as such—and the title sequence conveys this—can be comprehended particularly well. This is because the title sequence itself is a form of reading.*

It is with this in mind that a brief visual analysis of *Westworld*'s title sequence (Figure 5) is deemed an appropriate place to begin to unpack the show as a creative production in and of itself. The analysis of this content forms part of the creative process of the show-makers, which in turn acts as a demonstration of the theory's application internalised within the show. The show's title sequence presents the viewer with a sequence of dream-like and seemingly disconnected images. As with dream analysis, it is important to acknowledge that these images, regardless of how arbitrary they may at first seem, are symbolically loaded and communicate a deeper meaning. One could go so far as to argue that each of these images possess a dual meaning in relation to the content of the show - the first meaning speaks to Westworld's self conscious concern with creative production, and the second speaks to Jung's notion of symbolic images as a means through which to approach the unconscious.

In addition, narrative and mythological motifs are also considered in this analysis to highlight the universal or archetypal nature of the images mentioned. This approach mirrors the comparative method used in studies of mythologies in order to establish symbolic meaning. The dual meanings in the images also speak to indicators of both the Psychological and the Visionary modes of creativity being evident in the production of the show.

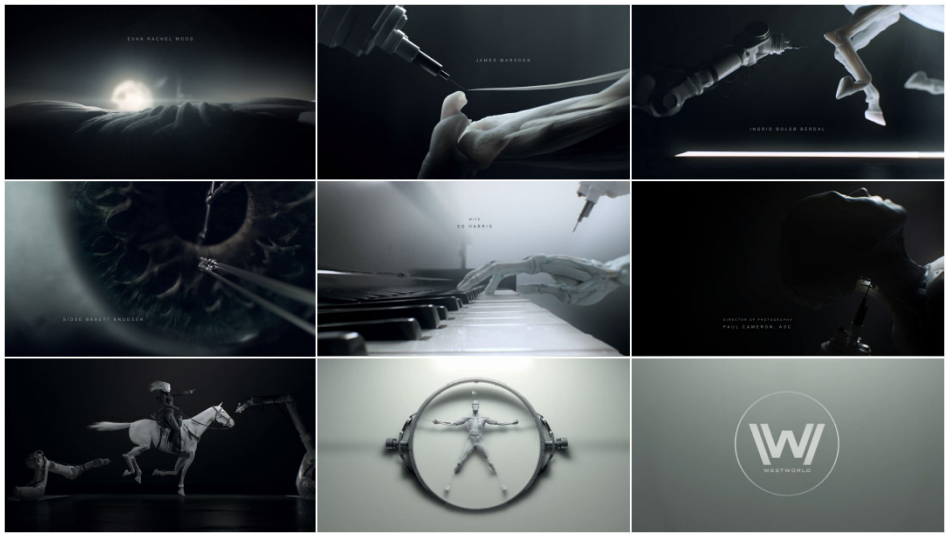


Figure 5: Westworld season one title sequence, 2016 (Art of the Title 2019).

Figure 6: Author, Psychological and Visionary symbolism of the Eye in Westworld title sequence, 2019.

THE EYE

The first image to be explored is that of an iris reflecting a gaping canyon in the vast Western landscape (Figure 6). The glossy dome of the iris with the other image reflected therein calls to mind the appearance of a camera lens and alludes to film and television making. From a Jungian stance the image of the eye, as well as the abyss, is richly symbolic. Jung (1973:52) states "the eye is the prototype for the mandala". Mandala, a Sanskirt word meaning "magical circle" emerges as a meditative tool from Eastern philosophies and religious practices (Miller 2005:165) however, Jung recognised that the motif also occurred in Western culture and viewed it as a useful tool for individuation. Within analytical psychology, the mandala represents the Self archetype - symbolic of individuation, wholeness, self-awareness, and psychic insight and integration. Jung likened the Self archetype to the image of God within the psyche - the "Imago Dei". If the eye is to be understood as a mandala, a representation of the Self, then the abyssal canyon reflected can be understood as the Shadow or dark side of the Self.

> *When an individual makes an attempt to see his shadow, he becomes aware of (and often ashamed of) those qualities and impulses he denies in himself but can plainly see in other people—such things as egotism, mental laziness, and sloppiness; unreal fantasies, schemes, and plots; carelessness and cowardice; inordinate love of money and possessions—in short, all the little sins about which he might previously have told himself: "That doesn't matter; nobody will notice it, and in any case other people do it too"* (Von Franz 1964:168).

Integration is particularly necessary to the process of individuation, gaining this insight of the Self and fully achieving consciousness. To integrate one's Shadow is also to master its psychic energy and the creative potential thereof (Coolidge 2006:70).

Through sublimation[5] psychic energies or "prima materia" can also be used to drive the creative spirit. This sentiment is clearly expressed in several archetypal stories.

5 As stated in the literature review, Jung rejects Freud's view that all psychic phenomena resulting from complexes such as art, philosophy and religion are "nothing but the repression of the sexual instinct". This also holds true in their differing uses of the term "sublimation". The sublimation referred to here does not allude to the sublimation of sexual energy but rather draws from Jung's suggestion that sublimation is an alchemical process of beneficial transformation.

John Milton's retelling of Genesis, *Paradise Lost* (Milton, Orgel and Goldberg 2008), is one such story. The story, which describes "man's first disobedience", can be read through a Jungian lens as a story of individuation through various confrontations with the Shadow. While at face value *Paradise Lost* may read as a cautionary tale, a Jungian reading would suggest that it does not refer to spiritual death through sin, but rather it describes a series of small, necessary deaths through suffering that allows conscious awareness to expand, and ultimately to arrive at a more integrated or whole iteration of the Self than before the Shadow had been confronted. This is seen most clearly from the point of view of Satan in *Paradise Lost*, when he finds himself traveling to the moon after an encounter with the allegorical characters of Sin and Death (Figure 7), the gatekeepers to the void, in search of a portal linking the moon to the realm of man. Satan is described as contemplating the creative potential of his voyage into Chaos, as he seeks to turn Man against his creator.

> *The Almighty Maker them ordain*
> *His dark materials to create more worlds,*
> *Into this wild Abyss the wary Fiend*
> *Stood on the brink of Hell and looked a while,*
> *Pondering his voyage*
>
> (Milton, Orgel and Goldberg 2008:56)

Another archetypal story which typifies the Jungian notion of Self and Shadow being integrated through the descent to and return from the realm of chaos is that of the ancient Egyptian myth of Horus. This myth is described and unpacked by Peterson (1999:108-114) in the following way: Three gods are put forth as well as their symbolic meaning. First is Osiris who is the benevolent, old king who is the embodiment of order; however, over time he has become wilfully blind to the issues in the kingdom and the malevolence that lurks there. Second is Osiris' brother Seth, who is the embodiment of evil and who seeks to overthrow Osiris, much like Satan in Paradise Lost. Finally is Isis, the queen of the underworld or feminine embodiment of chaos. The myth goes on to describe how Seth kills and dismembers Osiris. Through the destruction of order, chaos emerges in the form of Isis who seeks out the body of the dismembered king, collecting his body parts so as to impregnate herself. Here again, the creative potential of confrontation with the Shadow and the descent into chaos is emphasised. From this creative act, Horus is born. Horus, who is the product of a union between chaos and order and becomes another useful metaphor for the individuated Self, equipped with both vision and insight.

The symbolic image of the eye (as described above) reoccurs in this myth when upon defeating Seth and rescuing his father from the underworld, Horus offers Osiris one of his eyes allowing both to reemerge more complete and revivified than before. This image foreshadows the various individuation journeys several of the characters undertake during the first season of *Westworld* (2016).

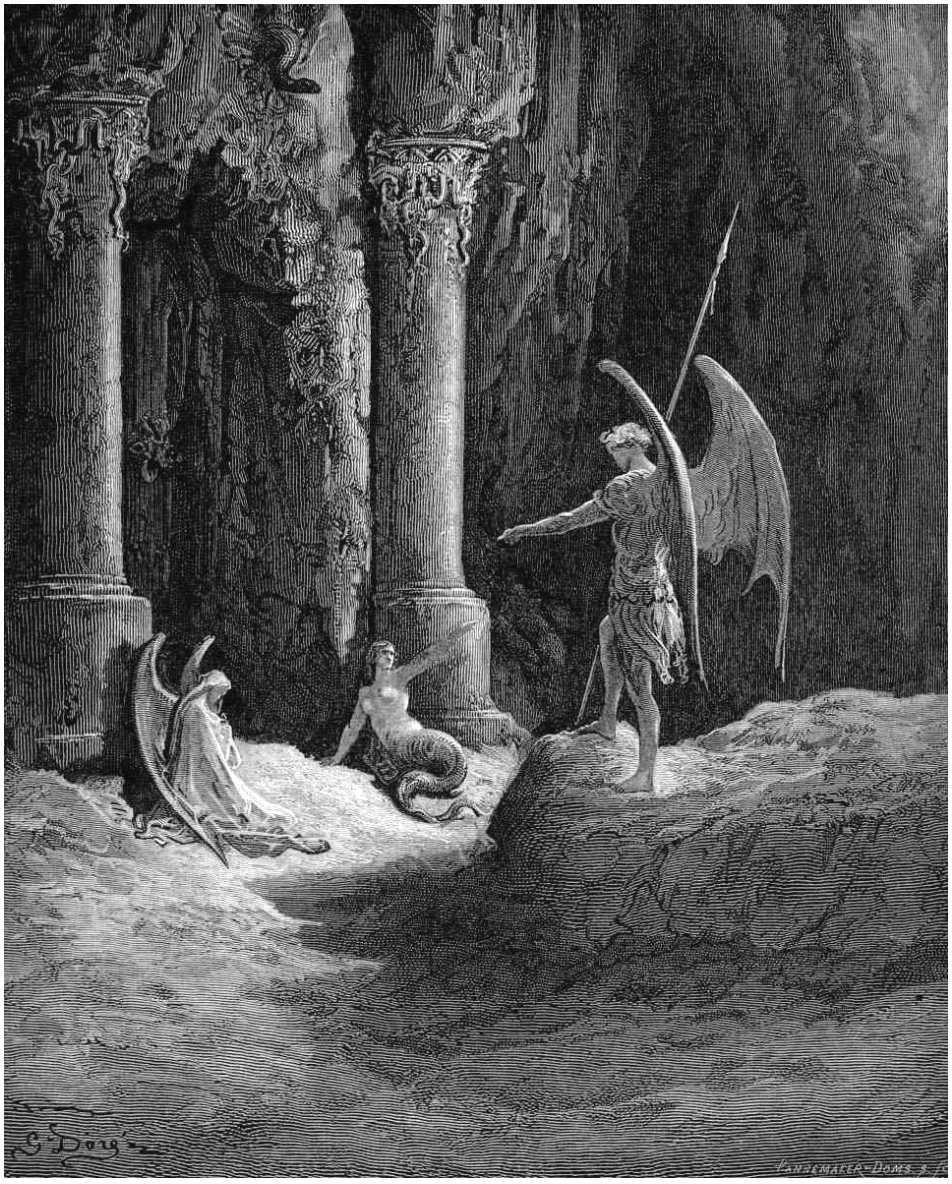


Figure 7: Gustave Dore, Satan Speaks With Sin and Death in *Paradise Lost,* 1866 (Dore 1993).

Figure 8: Author, Psychological and Visionary symbolism of the Moon in Westworld title sequence, 2019.

THE MOON

The next allusion to film as creative production is the image of a moon (Figure 8). The visual stylization of the moon and manner in which it moves across the screen makes strong reference to Georges Méliès' 1902 silent film *Le Voyage dans la lune - A Trip to the Moon* (MoMA 2018:sp). From a psychoanalytic perspective it is interesting to note the image relationship between the moon and the juxtaposed eye/canyon. If the eye indicates wholeness, insight and conscious awareness and the canyon indicates a fissure within that, aspects of the psyche that are incomplete or dark realms not yet discovered or integrated, the moon image may offer a means by which to resolve that. Again, it is worth noting in the example of *Paradise Lost* mentioned above, Satan uses the moon as an intermediary and transitory space between hell and paradise. Jung, who studied various religions, mythologies and belief systems from both Western and Eastern cultures, remarks on the pursuit of psychic wholeness (Carl Jung Depth Psychology 2019:sp):

> *The East would say: "But you only look for it with your sun eye, if you look with your moon eye it will become perfectly clear to you ... It is not possible to see across this space but by sinking deeply into ourselves and following the serpent path we can form a bridge which will enable us to see the light on the other side of the void.*

One of Jung's most notable case studies was that of a female patient who had "lived on the moon" (Jung 1989:129). This was a fiction she had created in order to cope with significant traumas she had suffered in her early life. Again, in this example the imagined landscape of the moon serves as a liminal psychic territory where one may weave together the Shadow and the Self. Several *Westworld* (2016) characters can be seen to occupy this space throughout the first season. As each character discovers something which shatters their existing reality, they rely on fiction as a means to bridge their new found insight - this is perhaps most clearly evident in Maeve's storyline within the show, where even though she discovers she is a Host and becomes increasingly aware of the awful mistreatment the Hosts must endure, she continually reverts to a fictitious vision of herself as a mother. This is what guides her actions and responses. In this way the image of moon or symbolically visiting the sometimes desolate psychic realm is a simultaneously traumatic and creative venture.

Furthermore, there is some direct overlap in the show's meditation on the creative process and analytical associations with moon imagery. Jungian psychologist, Clarissa Pinkola Estés draws a direct comparison between the cycles of the moon to the cycles one experiences during the creative process. As the moon waxes and wanes, so too does the creative spirit. In *The Creative Fire* (2005), Estés suggests that creativity is cyclical - that an idea begins as a vibrant and glowing inspiration but over time the idea declines, becomes exhausted, loses focus and energy. Through patience and renewal, the idea once again becomes full and fecund, richer for its period of entropy. Estés uses several metaphors to describe this process: moon cycles, the rekindling of a flame, the changing of seasons, and Persephone's descent to the underworld and return to the land of the living. Each example describes the same archetypal process which she calls the "life/death/life" nature (1992:333) of creativity.

THE HORSE

The next image in the title sequence to be examined is that of a white horse that appears to be running in place (Figure 9). The horse is represented twice in the sequence, at first on its own and later carrying a rider. The image is strikingly similar to Eadweard Muybridge's 1878 photographic study *The Horse in Motion*. To display the series of rapidly captured, successive images Muybridge developed the Zoopraxiscope - a transparent disk upon which the successive images were transferred, and when the disk was spun and projected, gave the impression of moving pictures (Muybridge 1985:sp). Muybridge's extensive collection of both animals and humans in motion as well as his inventive method of displaying them are often credited as the precursors to movie projectors suggesting that the image of the running horse in the title sequence is a clear allusion to the history of motion pictures and the production of film and television.

Beyond the overt reference to film, the image of the horse is a deeply symbolic one and an image that occurs across various mythologies and folklore. Across these narrative the horse comes to embody several archetypal concepts and so it is difficult to pin down a singular symbolic meaning. Jung himself offers multiple interpretations of the presence of horses in his different patients dreams depending on the context and content of the dream. It is again, useful to use the metaphor

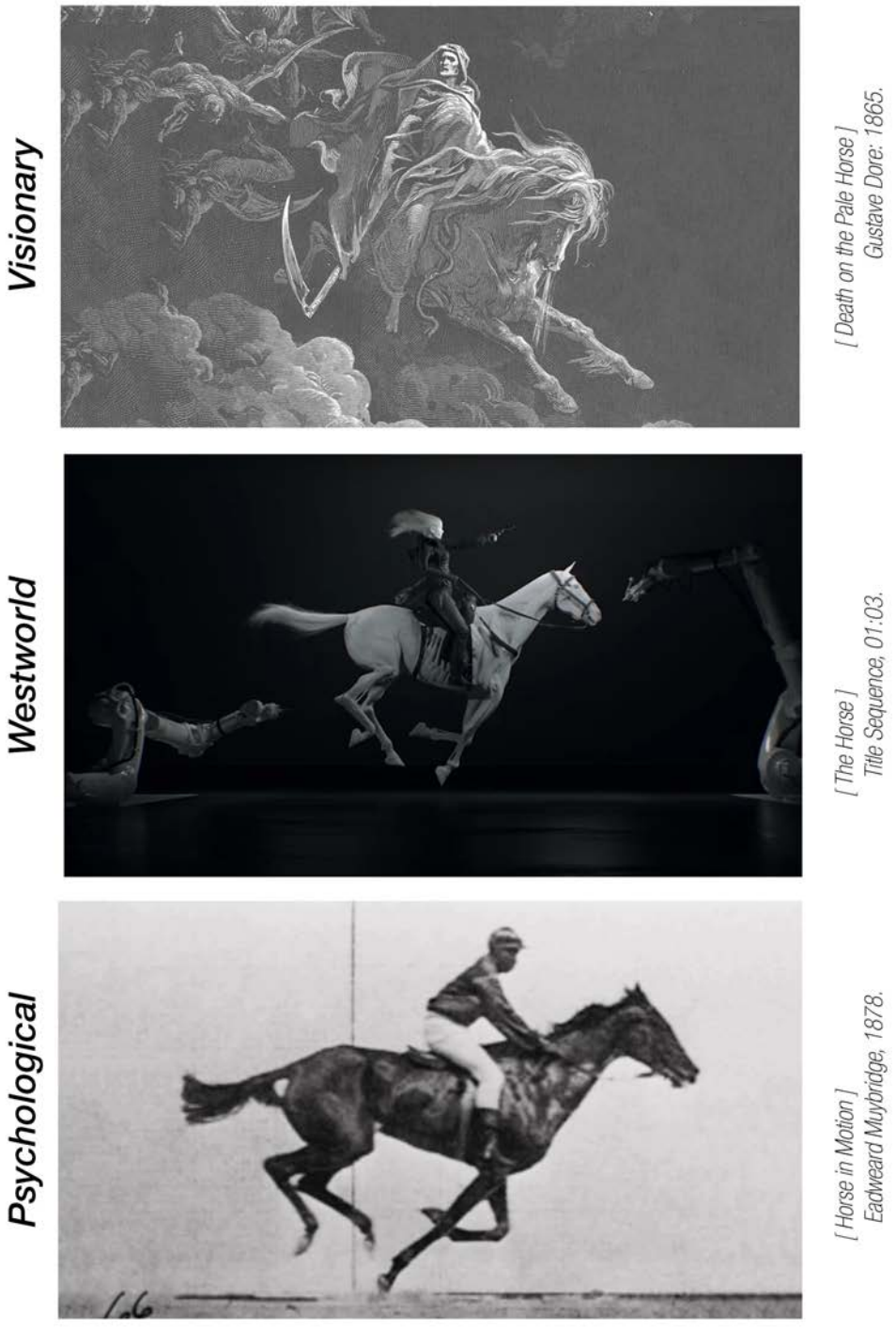


Figure 9: Author, Psychological and Visionary symbolism of the Horse in Westworld title sequence, 2019.

of a dream in analysing the title sequence particularly in the instance of the horse imagery. Chronologically, the first horse presented in the sequence is galloping however, it is only half built - areas of muscle, bone and sinew are open and expose the viewer to the inner workings of the horse. Jung suggests that in some instances the horse may be symbolic of humans' instinctive and primal drives, uncontrolled, manifested physiologically (Hannah 2006: 100-101). This interpretation is to be understood as cautionary because the symbol of the wild horse speaks to an energy that is powerful and life-giving when the equine energy is mastered and channeled correctly but is potentially dangerous and destructive if left unchecked. The strong visual focus on the physical mechanisms of the horse in this scene lends itself to this interpretation, as does the show's narrative which depicts the consequences of the humans in the park indulging their most primal desires.

The theme of horse as potential harbinger of both "vitality and destruction" (Hannah 2006:112) is continued in the second encounter of the horse in the title sequence. In this scene the horse's ribcage and jaw bone are clearly visible and exposed giving a more skeletal impression than in its first appearance. A woman dressed in black, whose skull is also partially exposed, sits upon the horse and holds a gun in her outstretched hand. The image is reminiscent of classical paintings of soldiers riding into battle, but on a more archetypal level, the image immediately invokes the apocalyptic scene described in Revelation 6:8.

> *And I saw, and behold a pale horse: and his name that sat on him was Death, and Hell followed with him. And power was given unto them over the fourth part of the earth, to kill with sword, and with hunger, and with death, and with the beasts of the earth.*

Paradise Lost (Milton, Orgel and Goldberg 2008:257), also describes the same scene similarly, extending the intertextual resonance of the symbol.

> *Mean while in Paradise the hellish pair*
> *Too soon arriv'd, Sin there in power before,*
> *Once actual, now in body, and to dwell*
> *Habitual habitant; behind her Death*
> *Close following pace for pace, not mounted yet*
> *On his pale Horse: to whom Sin thus began.*

The symbol however is not entirely morbid. As with all archetypal images, Death carries with it some positive connotations too, particularly within a Jungian framework. During the show, the viewer learns that the woman on the horse in the title sequence is a character named Armistice. If one examines her name and appearance, it does not seem coincidental that Armistice is the character featured in this particular scene. The word "armistice" refers to "an agreement between countries who are at war with one another to stop fighting and to discuss ways of making peace" (Collins Dictionary 2018:sp) which is well suited to the internal conflict all of the characters undergo as they struggle to achieve consciousness. In this light, the death referred to is not a physical death but rather, it is indicative of the life/death/life nature (Estes 1992:333) of suffering and transformation. The side of Armistice face that reveals her skull in the title sequence is ordinarily occupied by a snake tattoo, another archetypal image (Figure 10). Jung (2009:247) comments "The idea of transformation and renewal by means of the serpent is a well-substantiated archetype. It is a healing symbol" which compliments the character's name and symbolic function in the title sequence.

Figure 10: C.G. Jung, Snake: Incantation Series, 1915 (Red Book 2009:54).

Figure 11: Author, Psychological and Visionary symbolism of the Vitruvian Man in Westworld title sequence, 2019.

THE VITRUVIAN MAN

The last image to be examined in the title sequence is that of a Host being submerged into a body of opaque white liquid, the Host's body is spreadeagled and suspended within a large mechanical ring (Figure 11). The image immediately brings to mind Leonardo da Vinci's Vitruvian Man. The iconic illustration draws from the Vitruvian theory of proportion based on the theories put forth in classical Roman author Marcus Vitruvius Pollio's *De Architecture - On Architecture*. In this text, a theory of architecture is mapped out that makes analogy to the structure of the human body and asserts that any successful design incorporates the following three qualities: *firmitas* (strength), *utilitas* (functionality), and *venustas* (beauty) (Botturi & Stubbs 2007). The image simultaneously invokes the creative disciplines of both fine art and architecture.

In terms of depth psychology, the image may be interpreted as a mandala, the significance of which was introduced in an earlier image. Von Franz (1964:213) explains that "Among the mythological representations of the Self one finds much emphasis on the four corners of the world, and in many pictures the Great Man is represented in the center of a circle divided into four". This may also refer to the Quarternity or four ego functions.[6] Visually and symbolically this is evident in both Leonardo da Vinci's (1490) and *Westworld*'s (2016) Vitruvian inspired men. The mandala structure in these images speaks to the notions of an essential balance or order, consolidation of one's inner being or deep introspection towards self-knowledge. Mandalas have been consciously employed by several cultures as a tool with which to achieve knowledge of the Self and establish a sense of meaning and order on both an individual and collective level. Von Franz (1964:214) notes that while the symbol of the mandala has a long history of intentional use in art as well as religious and spiritual rites, it is also possible for it to occur spontaneously to one during the process of individuation in the form of a dream. Von Franz cites a female patient of 62 years old, who described a symbolic mandala which occurred to her in a dream and seemingly served as a harbinger to a new phase of life in which the woman became very creative. This perhaps suggests that self knowledge is an essential to the spirit of creativity. With this in mind it is also interesting to note that

6 These functions will be unpacked in greater detail in Chapter Three

this is the final image before the show actually starts, a fitting visual analogy for the Visionary approach of making ones psychic materials subjects to the opaque depths of the collective unconscious so that a new creation may emerge.

The above meditation on imagery demonstrates the practice of active imagination at work and how this process may grant additional layers of meaning to creative productions. The images are considered first in terms of the Psychological mode, namely formalistic characteristics and denotative intertextual references. The analysis, through active imagination and turning towards the unconscious, then reveals contents belonging to the Visionary mode namely, archetypal symbols, unconscious connotations and mythological intertextual references that speak to the more universal experiences of humankind. It is important to note that no image belongs solely to the Psychological or Visionary realm. Instead, a surplus of meaning can be found in the tensions and overlaps between these two modes. By engaging both the conscious and unconscious perceiving functions through methods such as active imagination, this surplus of meaning becomes accessible and adds value to the understanding of the creative production.

CHAPTER THREE: TYPOLOGY AND CREATIVE TRANSFORMATION

PERSONALITY AND CREATIVITY

The previous chapter considers the creative orientation of *Westworld* (2016) as well as key images presented in the show and determines that both the Psychological and Visionary modes are present. The presence of both modes is found to be beneficial as it engages both conscious and unconscious perception as well as renders greater degrees of meaning within creative work. This idea is extended in this chapter, where the orientation of the creator is considered. When creative productions may draw on both modes of creativity, it is useful to analyse how creatives may preference or manipulate their own creative process to ultimately arrive at works that encompass either or both of the creative modes.

Psychologists and creativity researchers have long been concerned with the function of personality in creativity (Yan, Childs & Hall 2013:2). It is interesting to note that one of the earliest explorations of the link between personality and creativity emerged from Albert Bandura (1986) who made noteworthy contributions to psychological perspectives on learning theories. Bandura formulated a comprehensive theory based on observational learning which he termed Social Cognitive Theory.[7] This is useful in framing the pedagogical potential of exploring the links between personality and creativity. More recently, in 1998 G J Feist proposed a working model to determine how personality traits heighten or lower behavioural thresholds towards creative action. His model considers biological factors as well as personality variables. Cognitive, social, affective and clinical personality traits have been found to be significant factors in establishing the creative potential of individuals. Feist (2010:117) states, "Personality traits mediate the relationship between brain and creative thought and behavior".

7 Social Cognitive Theory is explored in detail in Chapter Four.

In keeping with the hermeneutic employed throughout this study, the analysis that follows will only address functions outlined in Jung's theory of personality. The fictional co-creators of the park, Robert Ford and Arnold Weber serve as archetypal "creator" figures in *Westworld* (2016). Through careful examination of their personality traits, complexes and subsequent actions and creations, this analysis attempts to categorise the mode of creation each character operates from and is motivated by. In addition, overlaps and transitions from one mode to the other will also be considered.

Although the figures being analysed here are fictional, this process does yield some real world potential insofar as equipping educators with a framework to observe and categorise students so as to be adaptive in their teaching style towards creativity.

DEFINING PERSONALITY IN THE CONTEXT OF THIS STUDY

Various schools of thoughts and theories suggest that personality and the study of personality seem to be at the core of a number of different fields within psychology. Amongst these, a consensus exists in so far as suggesting that personality consists of a set of varying characteristics which are particular to an individual. Attitudes, temperament, competencies, interests and predispositions are among the characteristics that form individual personality. The combination of these characteristics as well as their arrangement within the individual plays a significant role in influencing how individuals behave and react. While the composition of an individual's personality can provide helpful insights, it's important to be mindful of making generalised assumptions about an individual based on their personality type. Personality can thus be considered a noteworthy variable when generating pedagogical tools aimed at varying modes of creative expression.

Jung's theory of psychological types acknowledges the differences in the way individuals perceive and subsequently behave in the world as well as notes predictable patterns within these differences. Jung's typology expands on his theory of archetypes. He suggests that within each individual, all the archetypes are present in the unconscious (Jung 1969:79) however the manner in which they would become manifest in the individual's lived experience would differ according to the composition of the individual's personality functions (Jung 2017:287). Jung's typology goes some

way to explaining the cause of these differences. Jung identifies four "orienting functions" (Jung 2017:505). Jung's quaternity consists of two perceiving functions: sensation which can be understood as perception through the physical senses, intuition which can be understood as perception through receptivity to unconscious material, and two judging functions: thinking which refers to cognitive thought and feeling which is related to subjective discernment. Each of these functions manifest to differing degrees, coupled with both an attitude of introversion and extraversion, resulting in a combination of eight functions. Every function is underpinned by a preference in attitude, either introverted or extraverted. This can be seen as the source of the function's energy and can be found correspondingly in the individual's inner or outer world. Each function would manifest in varying degrees coupled with the attitudes of extraversion of which four would take preference (the primary stack) but all eight would exert some degree of influence over the individual's personality. Jung's typology is best visualised as a set of corresponding quadrants along which one can plot function and attitude preferences.

An individual will express a pronounced predisposition for one of the four type functions: thinking, feeling, sensing or intuition coupled with a dominant attitude. This coupling is considered the individuals dominant or primary function. As a type of verifying mechanism within the composition of the personality, the secondary or auxiliary function is complementary to the primary, meaning that if the primary function expresses an attitude of extroversion for instance, the auxiliary function will express an attitude of introversion, or vice versa. Similarly, if the primary function is one of judgement, the auxiliary will be that of perception, and vice versa (Sharp 1987:19). The two remaining functions of the primary stack are dichotomous to the primary and auxiliary functions but work in tandem with them to balance the personality. While these two functions begin as being less developed, Jung proposes that they can be integrated (Sharp 1987:39). The tertiary function is the direct opposite of the secondary function in both attitude and nature. Berens and Nardi (2004:18) describe the tertiary function as playing a relief role and often being significant in how creativity is ultimately expressed.[8] The final function in the primary stack is the inferior function. Jung (2017:413) uses the term to "denote the function that lags behind in the process of differentiation".

8 This idea is explored in more detail in the upcoming analysis of both Ford and Arnold. In both character examples the transition from one mode of creativity into the other does, to differing extents, pivot around the integration of these less dominant functions.

The term is not used in a derogatory sense, it only means to describe that this function is less integrated than the preferred dominant function. According to Jung (2017:413), "It behaves like many repressed or insufficiently appreciated contents, which are partly conscious and partly unconscious" and can manifest both positively and negatively. Berens and Nardi (2004:18) suggest that the inferior function may also be viewed as an aspirational function, describing that while this particular function may take longer to develop, it is often found to be in some way linked to the sense of purpose, inspirations and ideals of the individual. The inferior function is invariably of the same nature (ie: perception or judgement) as the primary function, meaning if the primary is thinking the inferior will be feeling, if the primary function is sensation the inferior will be intuition, and vice versa. The attitude of the inferior function will also be oppositional to that of the dominant function.

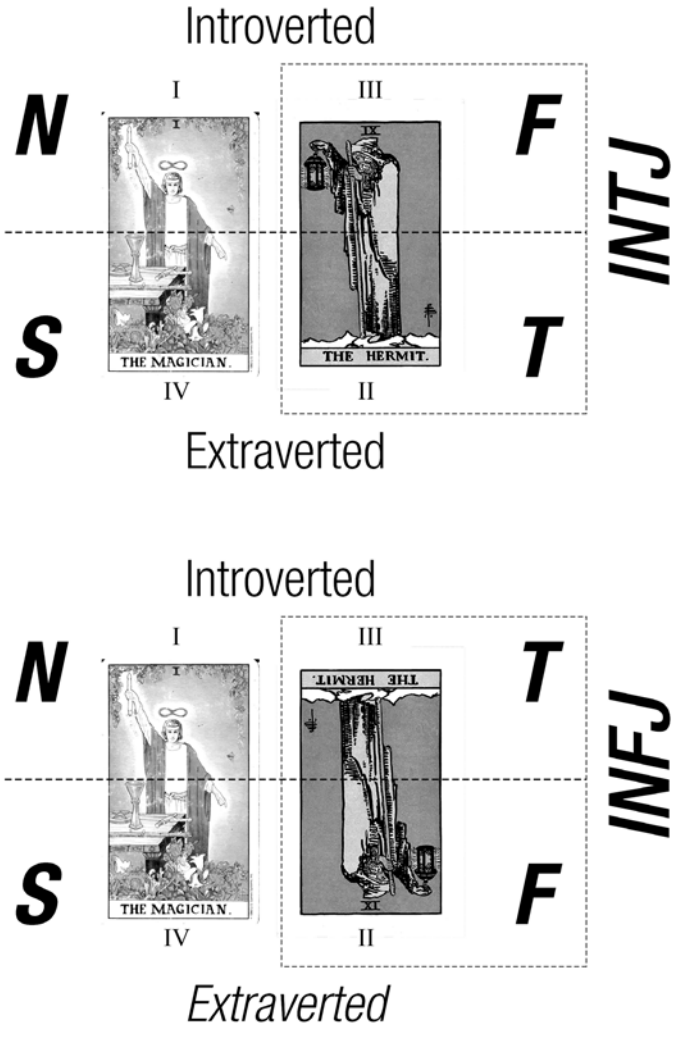


Figure 12: Author, Visualisation of personality functions comparing INTJ & INFJ cognitive stack, 2019.

The remaining four processes generally exist on the peripheries of one's consciousness and can be considered Shadow functions. These are sensation, intuition, thinking and feeling functions that are the opposite attitude to those outlined in an individual's primary stack. These functions generally only emerge in certain situations and often manifest negatively. However, these can also be positive when developed and integrated (Berens and Nardi 2004:18).

In this way, Jung's typology posits personality as a dynamic and complex energy system, containing conscious, partially conscious and unconscious energies. Jung's theory posits that personality is the result of "the movement of psychic energy and the way in which one habitually or preferentially orients oneself in the world" (Sharp 1987:12).

BRIEF CRITIQUE OF PERSONALITY TYPOLOGY

In reviewing literature critiquing Jung's typology and personality typing in general, it becomes important to make a distinction between Jung's personality types and the Myers-Briggs Type Indicator (MBTI). Personality typology aims at creating categories based on individual attitudes and behavioural patterns in attempt to explain the differences between people. This practice has existed in various forms since the ancient world. Jung's model of typology is largely based on a historical review of various fields addressing the question of personality including literature, mythology, aesthetics, philosophy and psychology (Sharp 1987:11). The model differs from its earlier predecessors insofar as it is not primarily concerned with observations of temperament and emotion. Instead, the primary focus is on the origin and direction of psychic energy used by the individual to act and orientate themselves. The Myers-Briggs Type Indicator was developed almost two decades after the publication of Jung's typology model. The Myers-Briggs Type Indicator is an instrument developed to enable lay-people to establish where they are positioned within Jung's typology. The indicator is a self-report questionnaire consisting of questions structured or pitted as psychological oppositions to establish Jung's notion of a whole or integrated personality (Berens & Nardi 2004:18).

Both Jung's typology and its operationalisation in the form of the Myers-Briggs Type Indicator have been subject to critique. There is also a substantial body of literature that critiques several aspects the notion of personality typing in general. In his critical review and practical guide, Rowan Bayne (1997:76-93) outlines several recurring critiques of the practice of personality typing. A common critique to personality typing is the notion that individuals are far too complex and unique to be systematically categorised and that personality typing is often equivalent to stereotyping. This is linked to the critique that the descriptors used are often vague and genralised.

Critiques of the Myers-Briggs Type Indicator more specifically suggests that the test is unreliable. The assertion is that the structure of the test does not truly measure personality rather it only measures how individuals respond to the test (Bayne 1997:76). Another significant bone of contention with regard to the MBTI testing is that it is largely unregulated (Murphy Paul 2004:224) and conducted by individuals who are not trained or qualified to administer the test. This runs a significant risk of mistyping as well as misuse of typing. Structured interviews with and guided by psychologically trained professionals, the collection and evaluation of individual biographical information, descriptive input from people associated with the individual being analyzed and extended observations by trained observers are all listed as potentially more reliable indicators (Murphy Paul 2004:222).

There are some aspects of Jung's Typology that can be considered ambiguous and are debated even among Jungian scholars. Some degree of dispute exists around the attitude of the less dominant functions. Myers' (1980) model interprets Jung's theory as suggesting that all inferior functions will be of opposite attitude to the primary function. More recently, models that expand on Jung's model such as Beren's (2004) and Beebe (2017) take a more flexible approach to the attitude of the auxiliary functions.

As all of these models are based on Jung's theory of the collective unconscious and archetypes, they are also sometimes regarded as being unscientific (Domhoff 2000:sp).

ADDRESSING CRITICISM AND QUERIES

It is the position of this paper to employ Jung's typology as an established framework with which to explore factors that may potentially contribute to or hinder creativity. The connection between personality and creative expression has been documented by many authors (Jung 2017; Yan, Childs & Hall 2013; Feist 2010; Jacobi 2013) and is used in the context of this study not as a dogmatic prescription but rather as a tool with which to establish insights and opportunities for further exploration.

It is not within the scope of this study to address the administering of personality type testing and nowhere in the research is this approach advocated for. An awareness of psychological typing towards personal creative development is probably most useful when arrived at through individual, genuine and mindful self discovery. A personal reflective approach to practice in both the fields of education and design may be helpful in establishing these insights in an authentic way that is beneficial in terms of learning and self development. Jung (2017:413) condenses his theory of personality as follows:

> *Experience shows that it is practically impossible, owing to adverse circumstances in general, for anyone to develop all his psychological functions simultaneously. The demands of society compel a man to apply himself first and foremost to the differentiation of the function with which he is best equipped by nature, or which will secure him the greatest social success. Very frequently, indeed as a general rule, a man identifies more or less completely with the most favoured and hence the most developed function. It is this that gives rise to the various psychological types.*

There is a clear sense that Jung's typology aims to highlight an individual's preferences or strengths, as well as areas that require further development within personality. It is exactly this aspect of personality theory this study wishes to draw from to explain where and how work must be done to grant students access to both modes of creativity. This is put forth as a flexible, working proposition that does not privilege one personality type over any other in terms of creative potential.

OVERVIEW OF FORD'S PERSONALITY PER JUNG'S TYPOLOGY

Ford can be considered introverted in his attitude. His primary orientation is that of the inner world and subjective experience. He is not swayed by the opinions or desires of others. This is seen time and time again throughout the show; Ford rejects his Father's worldview (Nolan, J & Joy, L. "Chestnut", Westworld), he displays little regard for the wishes of the parks corporate board (Nolan, J & Joy, L. "Dissonance Theory", Westworld) and it is suggested that he and his creative partner could not reach an agreement in terms of understanding the nature of what the park would become (Nolan, J & Joy, L. "The Bicameral Mind", Westworld).

Ford demonstrates a dominant function of introverted intuition (Ni). This function seeks out and synthesises incongruencies towards new, creative possibilities that are often complex and multi-faceted. As this function remains introverted, meaning it is not so much concerned with external possibilities but rather what those external factors (Se) may impact on the inner world (Jung 2017:367). In this way Jung posits introverted intuition as being linked or attuned to matters of the unconscious. Much of the show's story arc pivots around Ford's mysterious new narrative. Although the details of the new narrative are only revealed in the final episode, throughout the season small clues allude to the fact that Ford's new narrative is grand in scale (Nolan, J & Joy, L. "Dissonance Theory", Westworld), requires a multitude of characters and relies on a combination of past, present and future narratives (Nolan, J & Joy, L. "The Stray", Westworld). Furthermore it is far more complex in terms of how it addresses the Hosts and guests' back-stories and motivations than any of his previous narratives (Nolan, J & Joy, L. "Chestnut", Westworld). Ford expresses an explicit interest in abstract possibilities and believes actions not geared towards achieving these possibilities are wasted or superficial endeavours. This sentiment is perhaps nowhere more clearly demonstrated as in his reprimanding of Lee Sizemore's alternative narrative pitch:

> *The guests don't return for the obvious things we do, the garish things. They come back because of the subtleties, the details. They come back because they discover something they imagine no one had ever noticed before… something they've fallen in love with. They're not looking for a story that tells them who they are. They already know who they are. They're here because they want a glimpse of who they could be.*
> (Nolan, J & Joy, L. "Chestnut", Westworld)

Ford's auxiliary function, which aids in supporting and executing his dominant Ni, is extroverted thinking (Te). This function is made apparent in Ford's often coldly analytical and systematic approach to things. He is methodical and precise in identifying and categorising constituent parts of systems, such as a character's role in a narrative or an employee's purpose within the Delos organisation. His interest in these matters is driven by his desire to control and manipulate his outer world. This desire is taken to such an extreme in the show that Ford literally creates a world of his own which he describes as follows, "It's not a business venture, not a theme park, but an entire world. We designed every inch of it. Every blade of grass. In here, we were gods. And you were merely our guests" (Nolan, J & Joy, L. "Dissonance Theory", Westworld). This statement clearly emphasises how Ford's Te characteristics such as his meticulous planning and execution are entirely in service of the 'big picture' established by his dominant Ni function. In this way Ford comes across as impersonal and egocentric.

The tertiary function is not as developed as the dominant and auxiliary functions. However, it serves as a change agent and balances the personality. Ford's tertiary function is introverted feeling (Fi). While Ford often comes across as a cold and calculated mastermind, there are moments in the show that portray him as quietly sentimental. It is made evident that Ford is unconcerned with establishing social connections for the purposes of networking. Instead, he seems intently emotionally invested in only a handful of close relationships, namely in his family (or recollection of them) and Bernard.

Ford's inferior function is extraverted sensing (Se). While Ford seems thoroughly disinterested in the more mundane workings of the 'real world' outside of the park, such as board meetings and corporate power struggles, he is passively aware of the information contained in this realm. He glibly tells a senior manager of the park, in an attempt to intimidate her, that he knows everything about his guests, just as he knows everything about his employees (Nolan, J & Joy, L. "Dissonance Theory", Westworld). The tacit knowledge that can be considered as belong to Ford's extraverted sensing, serves only to inform his more dominant and auxiliary functions. A condensed visual summary of Ford's cognitive stack can be seen in Figure 13.

Figure 13: Author, Ford's Personality Analysis, 2019.

FORD AND THE PSYCHOLOGICAL

At the start of season one of *Westworld* (2016) Robert Ford is introduced as the park's founder and current creative director. The character of Ford appears at first to be the quintessential example of a creator operating from the Psychological mode. In order to classify Ford in this manner, it is important to return to Jung's description of the Psychological creative. The Psychological mode is characterised by creative processes that draw from the conscious realm of the individual, personal complexes of which the individual is consciously aware as well as a strong sense of intentionality (Jung 1966a:116). It is this deliberate attention to the detail of everyday life that enables the Psychological creative to produce work that is not only immediately accessible but allows the viewer, or in the case of Westworld - the guests, to gain greater insight into subjects they are already conscious of but may not be able to articulate or express.

Ford is passionate and uncompromising in his creative vision for the park, which speaks to his Ni. Through careful examination of Ford's conviction and subsequent actions, his words and his creations, it becomes clear that much of his creative drive is motivated by personal (introverted) complexes he is consciously aware of and can

therefore be categorised as emerging from the Psychological mode.

Ford's creation to be examined is Bernard Lowe. Bernard is first introduced to viewers as the head of the behaviour department in the park (Nolan, J & Joy, L. "The Original", Westworld). The task of the behaviour department is to make the Hosts seem as life-like as possible by analyzing, manipulating and improving the Host's body language, behavioural patterns, verbal responses and intellect - functions that clearly align with the concerns of the Psychological mode. There is an interesting irony at play here as, at this point in the show, the viewers of the show and the other characters in the show have no reason to believe that Bernard is anything other than human. It is only revealed in the seventh episode that Bernard is in fact a Host created by Ford (Nolan, J & Joy, L. "Trompe L'Oeil", Westworld).

Upon this discovery, a dialogue ensues between Ford and Bernard that highlights several considerations in Ford's creative process. Bernard expresses that he is distraught and confused by this revelation and Ford marvels at this overt emotional display calling it "a thing of beauty". He tells Bernard to feel proud of the emotions he's feeling and goes on to explain that initially the Hosts could only feel "primary colour" emotions. The engineers couldn't create a more complex Host, so Ford built Bernard and together they achieved a wider range of feelings for the Hosts. It becomes evident that Ford has been striving for absolute realism through a greater depth of emotion in his creations indicating deliberate actions taken to achieve a particular end result - a strong indicator of the Psychological mode.

In the penultimate episode, it is further revealed that Bernard was modeled on Ford's former business partner and co-creator, Arnold Weber (Nolan, J & Joy, L. "The Well-Tempered Clavier", Westworld). Bernard's physical appearance, temperament, habits and pre-programmed memories are carefully constructed simulacrum of Arnold. The name Bernard Lowe even serves as an anagram for Arnold Weber. It becomes clear that, in this instance, Ford is creating from the Psychological mode because he is relying on his subjective experience of the past and the memory of his partner as inspiration for his creation. He is also deliberate and methodical in achieving a perfect likeness, meaning every element of the creation can be explained and justified - as is a categorising feature of the Psychological mode according to Jung (1966a:94). Upon Bernard's creation, Ford states, "You are the perfect instrument, the ideal partner. Together, we're going to do great things. After

such a long absence, it's good to have you back, finally" (Nolan, J & Joy, L. "The Well-Tempered Clavier", Westworld). This is well aligned with Jung's (1966a:73) suggestion that the Psychological mode springs forth from a more introverted or sentimental attitude, in which the creator asserts conscious control over the object in order to achieve particular aims.

Ford's aims are ambitious and audacious. He seeks to maintain complete creative control over the park. It is this exact desire that divulges Ford's seemingly self-conscious God-complex. Ford makes several explicit allusions to playing God throughout the season:

> *You can't play God without being acquainted with the devil* (Nolan, J & Joy, L. "Chestnut", Westworld).

> *The problem, Bernard, is that what you and I do is so complicated. We practice witchcraft. We speak the right words. Then we create life itself … out of chaos* (Nolan, J & Joy, L. "Chestnut", Westworld).

Similar to archetypes, complexes may manifest positively and/or negatively. Ford's God-complex is paramount to his desire to create. This can be considered positive but his overarching need to control and dominate his creations borders on being megalomaniacal. The unyielding control he exerts also binds him to the Psychological mode. Ford's motivation for needing absolute control may be found in part in the Ni dominant and Se inferior aspects of his personality, as is suggested by his rejection of the "real" world in favour of the fantasy world he created:

> *My father told me to be satisfied with my lot in life. That the world owed me nothing. And so I made my own world.*

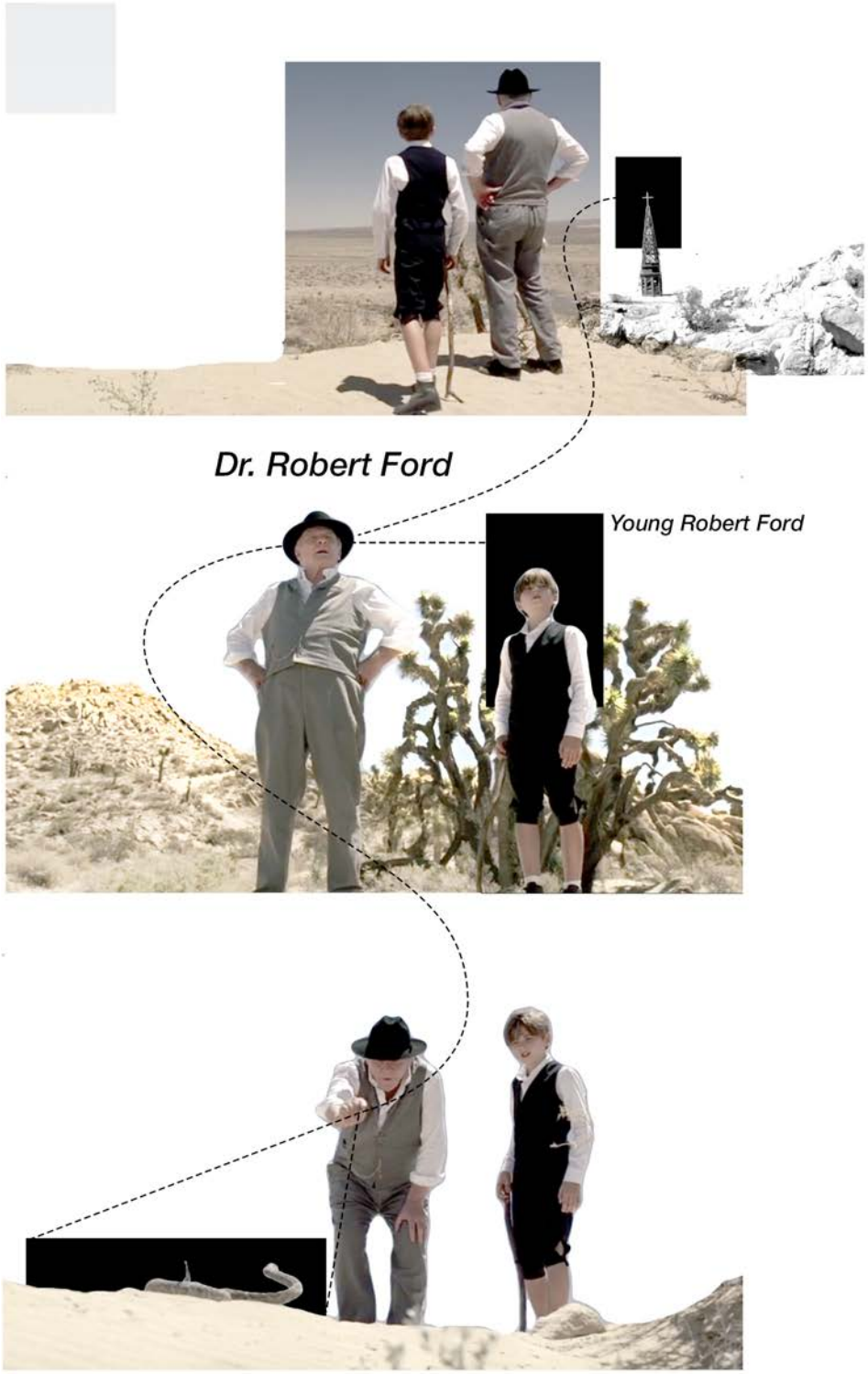
Another complex Ford seems to possess, or is possessed by, is a Father-complex. This is most clearly expressed in Fords interactions with a nameless little boy who viewers are introduced to in the second episode (Nolan, J & Joy, L. "Chestnut", Westworld). The boy speaks in British accent and dresses similarly to Ford.
Ford both amuses and advises the little boy. He encourages the boy to be creative, that from his boredom he may conjure magical things. In the sixth episode (Nolan, J & Joy, L. "The Adversary", Westworld) viewers learn, through Bernard's discovery, that the little boy's name is also Robert and that he is a Host, who lives "off the grid" in an undocumented part of the park with a family that is modelled on Ford's family,

including the family dog. The father figure becomes confrontational with Bernard's intrusion and Ford intervenes just in time. He explains to Bernard that these are first generation Hosts:

> *These are the only ones left in the park that Arnold built himself. That's why I didn't have the heart to destroy them. That and the obvious … I told him of a holiday my family had taken once out on the seaside at Pendeen in Cornwall. My brother and I roamed the countryside. It's my only happy memory of my childhood. Arnold built them as a gift. He said that great artists always hid themselves in their work. Of course, Arnold's versions flattered the originals. I made some adjustments over the years. Gave my father, in particular, a few of his original characteristics.*

Two important aspects must be noted from this particular excerpt. The first is that Arnold is solely responsible for the creation of these particular Hosts (This also implies that the Hosts that follow were collaborative between Arnold and Ford). Therefore, the biographical nature of these Hosts is not a indicator of the Psychological mode for Ford although it could be argued that while Arnold gifts Ford with a set of Hosts that are archetypal such as mother, father and child archetypes, Ford consciously manipulates the creations into something subjective and sentimental and therefore more Psychological in origin. The second is the insight into the root of Ford's Father-complex as it is inferred that Ford's father was unkind to him as a child.

As complexes are defined as "feeling toned", they may take on either a positive or negative tone (Jacobi 2013:101). The Father complex emerges from an archetypal encounter with the father figure such as conflict of power or a yearning for the father figure. The Father archetype may not be the representation or image that is identical with actual individual fathers, rather it is the symbolic expression of the paternal model that is common across almost every culture. This complex also manifests itself positively and negatively within the relationship between Ford and his creations. Ford sometimes assumes the archetypal nature of the positive aspects of the Sage when he uses his wisdom and intellect to serve as a mentor to Bernard as well as the little boy. Other times he assumes that of the Magician, when he creates and manipulates the park in order to foster magical moments. In other instances Ford assumes the tyrannical aspects of the Ruler when asserting power over other characters. Despite the archetypal character of these traits, the primordial aspect of Ford's archetypal actions is lost because the root of his vision can be traced to personal experience, rendering it largely Psychological in nature (Jung 1966a: 121).



Dr. Robert Ford:
And here we are.

Young Robert Ford:
Nowhere land.

Dr. Robert Ford:
That seems hardly a fitting name for a place so full. Can't you see it? Perhaps you're not looking hard enough.

Young Robert Ford:
At what?

Dr. Robert Ford:
The town with the white church. Listen. Can't you hear its bell?

(BELL TOLLING)

Young Robert Ford:
Yes. Yes, I can hear it now.

Dr. Robert Ford:
Yeah. I thought you might. You see what a bored mind can conjure?

(RATTLING)

Young Robert Ford:
How did you do that? Is it magic?

Dr. Robert Ford:
Everything in this world is magic, except to the magician.

Figure 14: Author, Ford's transition to the Visionary - Part 1, 2019

FORD'S TRANSITION TO THE VISIONARY

While Ford can be neatly categorised as creating from the Psychological mode against the criteria of control and intentionality, inspiration from personal experience and introverted attitude, a transition from the Psychological into the Visionary mode is observable in Ford's creative action at the end of the season.

Jung (1966a:118) offers the example of Goethe's *Faust* as a single creative work that contains both aspects of the Psychological and Visionary mode. He describes Part One of *Faust* as being strongly introverted in attitude, rendering it Psychological and with little requirement for further interpretation as the contents speaks to that which is well understood by the human consciousness. Yet in commenting on Part Two of *Faust*, Jung (1966a:118) explains the following:

> *The gulf that separates the first from the second part of Faust marks the difference between the Psychological and the Visionary modes of artistic creation. Here everything is reversed. The experience that furnishes the material for artistic expression is no longer familiar. It is something strange that derives its existence from the hinterland of man's mind, as if it had emerged from the abyss of prehuman ages, or from a superhuman world of contrasting light and darkness. It is a primordial experience which surpasses man's understanding and to which in his weakness he may easily succumb. The very enormity of the experience gives it its value and its shattering impact. Sublime, pregnant with meaning, yet chilling the blood with its strangeness, it arises from timeless depths; glamorous, daemonic, and grotesque, it bursts asunder our human standards of value and aesthetic form, a terrifying tangle of eternal chaos.*

A similar transition is notable in the creative actions of Ford in the final few episodes of the show. This is visualised in compiled stills and quotes from the show in Figures 14 and 15. Throughout the season viewers are aware of Ford working on a new narrative for the park. The new narrative is alluded to in almost every episode either in conversation or in visual clues like blueprint plans and construction sites. The manner in which these are presented are always obscure and shrouded in mystery as the other characters have as limited access to the new narrative as the viewers. Viewers are led to believe that this is yet another elaborate and egotistical effort to retain control over the park. Instead, in the final episode, viewers learn that Ford's new creation is not a pre-scripted narrative for the park but rather it can be seen as

Dr. Robert Ford:
You're not going to come back here again, are you?

(WHIRRING)

Young Robert Ford:
No.

Dr. Robert Ford:
Run along, now.

(BEEPS)

Bernard Lowe:
"You promised them a new storyline."

Dr. Robert Ford:
"They shall have one. Something I've been working on for some time.

Something quite original."

Figure 15: Author, Ford's transition to the Visionary - Part 2, 2019

Ford continuing, and in some ways even surpassing, Arnold's intention for the park[9] which can be considered as manifesting from the Visionary mode.

Throughout the season several of the Host undergo journeys similar to that of individuation. This feat is only possible because Ford scaffolds on Arnold's theory[10] in which memory, improvisation and self-interest are considered to be the building blocks of consciousness, but that it is suffering that sparks the true emergence of consciousness within the Hosts. Ford sates, "It was Arnold's key insight, the thing that led the Hosts to their awakening: suffering. The pain that the world is not as you want it to be. It was when Arnold died, when I suffered, that I began to understand". With that understanding, Ford decides to continue Arnold's work. Equipped with the knowledge that the Hosts are capable of both learning and remembering, Ford facilitates the Hosts in gathering experiences of suffering over decades in the park, which he knows will be accessible to them through the reveries coding Arnold had originally installed. Their journeys culminate in their coming to consciousness. Along with consciousness the Hosts also develop autonomy. In so doing, the park is transformed from a carefully constructed and monitored fantasy to a new realm belonging completely to the chaos of the unknown.

Ultimately, Ford's final creative offering is not a structured narrative but, rather, he surrenders his control as a creator, making himself subject to whatever may manifest from the condition of chaos he has facilitated. There is a sense of enormity to this act in terms of scale and sacrifice. The theme of free will is emphasised throughout the show but most strongly in the final episode. This serves as a useful analogy when one considers the autonomy of the artwork or when creative products seem to take on a life of their own. Ford, who throughout the show, is portrayed as a creator defined by his absolute control transforms into the Visionary mode by sacrificing that control. This can be seen as Ford engaging in participation mystique. By relinquishing power and control over the Hosts and the park Ford effectively dissolves the distinction between subject and object. The locus of control no longer rests among a group of individuals in the park but rather exists as an extraverted collective consciousness that has evolved and developed throughout the park's lifespan.

9 To be explored in 'Arnold and the Visionary' section.

10 This was explained in greater detail in the section 'Brief summary of *Westworld* premise' in chapter two.

OVERVIEW OF ARNOLD'S PERSONALITY PER JUNG'S TYPOLOGY

Clues to Arnold Weber's personality are also found in Bernard Lowe, who is the Host replica of Ford's original creative partner. It is described in great detail how Ford created and trained Bernard to mirror Arnold (Nolan, J & Joy, L. "The Well-Tempered Clavier", Westworld). The show is also often intentionally ambiguous as to whether it is Arnold or Bernard on-screen.

As with Ford, Arnold's dominant function is introverted intuition (Ni). Arnold is also deeply concerned with creative possibilities making him an ideal partner in a creative endeavour as audacious as the park. Throughout the show it becomes clear that Arnold demonstrates a strong capacity to synthesize information and is sensitive towards perceiving patterns and connections. While Ford and Arnold share the same dominant function, a stark difference emerges in their auxiliary function and how they go about achieving or implementing creative possibilities.

Arnold's auxiliary function is extraverted feeling (Fe). Jung (2017:329) describes the orientation of extraverted feeling as being objective and concerned with traditional moral values. This is certainly true in the case of Arnold whom it is revealed is entirely motivated by the devastating loss of his family (Nolan, J & Joy, L. "Trompe L'Oeil", Westworld). He also avidly advocates for the rights of the Hosts once he discovers they are able to achieve real consciousness. Arnold's quest to develop consciousness within the Hosts and his subsequent deep mistrust of what the park would become and what the Hosts would be subject to, becomes an obsession. Ford describes that Arnold's "personal life was marked by tragedy. He put all his hopes into his work. His search for consciousness consumed him totally. Barely spoke to anyone, except the Hosts. In his alienation, he saw something in them" (Nolan, J & Joy, L. "The Stray", Westworld). Jung (2017:330) describes that in some extreme instances of extraverted feeling, one may become overwhelmed by the desire to maintain objective harmony and order in the external environment at the expense of their own subjective feeling and well-being. This too is evident in Arnold's motivations and actions. In the final episode of the first season Arnold is shown to have tried to sabotage the opening of the park by programming Dolores to commit a massacre among the other Hosts. Arnold knows that in order for his plan to work the stakes must be real and irreversible and as the Hosts can be repaired, he finally instructs

Dolores to kill him. The act is highly sacrificial as he believes this will spare the Hosts. Again, a description provided by Ford to Dolores is useful in understanding Arnold's rationale; "In you, Arnold found a new child. One who would never die. The thought gave him solace until he realized that same immortality would destine you to suffer with no escape, forever" (Nolan, J & Joy, L. "The Bicameral Mind", Westworld).

Arnold expresses a tertiary function of introverted thinking (Ti). In some aspects of Arnold's personality this function is clearly observable such as in his attention to detail and his intensity in pursuing his theory of consciousness. However, in other instances it becomes clear that this tertiary function has not yet been sufficiently integrated. The fact that his tertiary Ti, which should verify and assess the products of his more dominant Ni and Fe does not allow self-preservation to override his sacrificial impulses illustrates this.

As with Ford, Arnold's inferior function, extraverted sensing (Se), is the least developed aspect of his personality. It is this function that explains Arnold's inherent mistrust and uneasiness with the physical or "real" world - the realm outside of the park and those who occupy it such as the guests and corporate figures. He is overwhelmed by the sense of violence and tragedy he associates with the world outside of his own creation. In both instances Ford and Arnold's inferior Se can be seen as made manifest in and as the park. The unconscious is shown as real in a material form. A condensed visual summary of Arnold's cognitive stack can be seen in Figure 16.

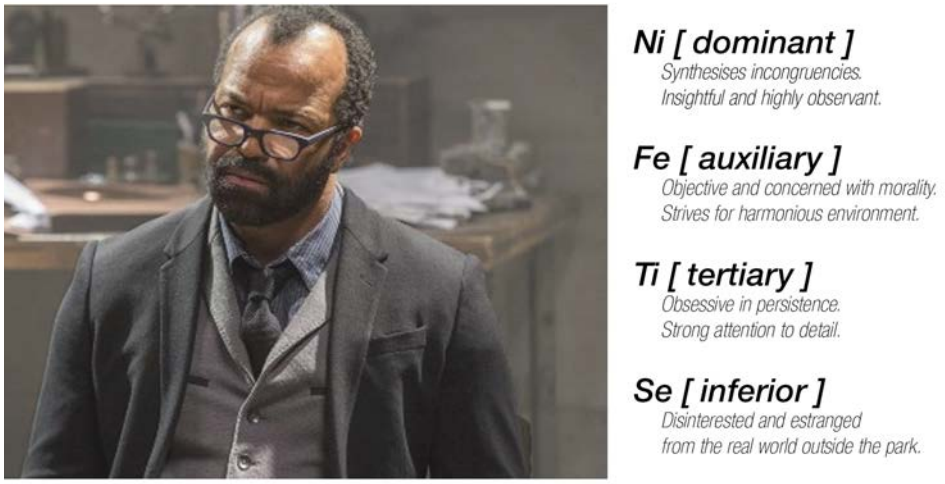


Figure 16: Author, Arnold's Personality Analysis, 2019.

ARNOLD AND THE VISIONARY

Arnold is an enigma as both a character and as a creator. His presence is felt throughout the show but there is ambiguity as to when he is seen and exactly what actions he is responsible for. Ford co-founded the park with Arnold. Ford describes Arnold's life as being one of immense suffering, and as such he poured himself into his work trying to create consciousness in the Hosts, through this process he isolated himself and eventually lost touch with reality and it is inferred that he committed suicide. This brief description alone paints the picture of the stereotypical artist doomed to suffer for his work, as is common in many romantic tropes. It is exactly these romantic characteristics Jung associates with the Visionary mode (Jung 1966:132). One could go so far as to suggest that it is not so much cliché as it is archetypal and is already internalised within the Visionary mode which derives its creative force from the collective unconscious.

The Host Dolores is the creation that best typifies Arnold's Visionary mode. Arnold deeply desires to create true sentience and consciousness in the Hosts and it is through his interactions with Dolores that viewers get a glimpse of how Arnold attempted to achieve this aim.

Dolores, as a creation, may be considered archetypal on a number of levels and will be analyzed in terms of her narrative as well as recurring symbolic images[11] and the seemingly universal familiarity thereof. Dolores embodies several archetypes throughout the show, but the one most pertinent to her interactions with Arnold is that of the child. Ford suggests that Arnold used the Hosts to replace the loss of his own son, which one could argue is an indication of the Psychological mode at play. But there are notable differences in how Arnold does this when compared to Ford. Ford replaced his partner and family with Hosts which both in character and appearance are identical to the originals. Arnold's creation holds no such sentimentality. Dolores is not a copy of his own child, but rather she embodies characteristics associated with the archetypal image of a child. Jung (1969:160) describes archetypes as appearing involuntarily as manifestations of the collective unconscious. This aligns Arnold's creation of Dolores more closely with the more extraverted Visionary mode. Arnold's sensitivity to the archetypal resonance of such

11 This also includes intertextual references.

images outside of only his own experience is perhaps also a consequence of his auxiliary Fe function.

Jung (1969:161) asserts that in archetypal images, "The child motif represents the preconscious, childhood aspect of the collective psyche". This statement also aptly describes what Dolores comes to symbolise in the show and also in her relation to Arnold. The archetypal child is hopeful and undifferentiated and so stands as a symbol of boundless future creative potential. Within Jungian theory it is also often the child or child hero who anticipates the individuation journey. Various intertextual references mirror this image in the show. The blissful and paradisiacal state of man in Eden prior to gaining self-knowledge is alluded to several times throughout the season. Another pertinent and explicit reference (Nolan, J & Joy, L. "The Stray", Westworld) is made between Dolores and Alice in Lewis Carroll's 1865 children's classic *Alice's Adventures in Wonderland*. Both are young girls who engage in a journey to establish an understanding of the games people engage in life, the rules that govern those games, they question concepts of authority, time, and death and ultimately arrive at a greater sense of their own identity. Arnold goes so far as to gift Dolores a copy of the book and is eager to discuss her thoughts on it in their conversations around Dolores' progress towards consciousness. These conversations always begin in "analysis mode" in which Dolores is asked if she knows where she is and always responds "I am in a dream". This is yet another similarity between Dolores and Alice. Alice's "dream" is what helps her to recover reality.[12]

In order to facilitate Dolores in achieving consciousness, Arnold creates "the Maze". The Maze is not a physical creation but rather a learning or assessment tool[13] which Arnold gives to the Hosts to test the development of true consciousness. Based on the theory of the Bicameral Mind, Arnold uses memory, improvisation and self-interest coupled with the reveries, which appear to the Hosts as the voice of the gods, to drive the Hosts to a point of chaos and deep confusion. This forces the Host to confront or become aware of their own unconsciousness. In this way, the Hosts develop self-awareness and consciousness by engaging in unscripted critical thinking and genuine problem solving.

12 The significance of dreams and dream analysis in relation to creative exploration is unpacked in further detail in Chapter Five..

13 The pedagogical implications and learning theory supporting this is discussed in greater detail in Chapter Four

Dr Robert Ford:

"Grief is a terrible thing. Arnold had watched his son come into this world, and then he had watched that light extinguished.

What he had lost in his son,he tried to rekindle in you [Dolores] ...

[...] In you, Arnold found a new child. One who would never die.

The thought gave him solace until he realized that same immortality would destine you to suffer with no escape, forever."

Arnold:

"Charlie's favorite song. I would play it for him... when he wanted sleep.

I want to see him again."

[THESE VIOLENT DELIGHTS HAVE VIOLENT ENDS]

Figure 17: Author, Arnold's transition to the Psychological, 2019.

Arnold grants his creation autonomy by allowing Dolores to complete the maze. His approach is Visionary in so far as it is revelatory and seeking the Divine. Both the result and the process of Arnold's creative mode is staggering, chaotic and at times terrifying. He encounters the first two constituent aspects of the numinous through this process. During the mysterium Arnold is confronted with the fact that he has transgressed beyond the boundaries of his previously held certainties of what the Hosts are capable of and what the potential of the park is. While this may excite his dominant Ni function, it deeply unsettles his concern for environmental harmony fueled by his auxiliary Fe function. It is these negative connotations that make way for the experience of the tremendum. Once Arnold's aim of creating consciousness is achieved, he is confronted by two realisations that overcome him with immense fear. The first realisation is that for the Hosts to be conscious and sentient of the actions of the human guests in the park would be tantamount to torture and slavery.

The second realisation is that having created beings that are effectively immortal as well as conscious creates the potential for them to be dangerously disobedient and eventually even overthrow their creators. This concern finds an apt mirror in the first book of *Paradise Lost* (Milton, Orgel and Goldberg 2008), in which Satan rebels against his creator due to his unwillingness to be subjugated by God.

ARNOLD'S TRANSITION TO THE PSYCHOLOGICAL

Arnold never fully realizes the numinous because he is unable to move beyond the tremendum and succumbs to his fears about and for the Hosts. It is at this point that his creative mode transitions from the Visionary to Psychological. This is visualised in compiled stills and quotes from the show in Figure 17.

Arnold decides that he must destroy the park so that it cannot open. The Hosts are not restored and his horrific vision of the future does not come to fruition (Nolan, J & Joy, L. "Contrapasso", Westworld). He uses Dolores to do this. He programmes within her a new character named Wyatt whose sole purpose is to act as a harbinger of death and destruction. Overwriting the consciousness he developed in Dolores also strips her of her autonomy. Having exerted power over the creation to the point that it no longer has a life of its own frames Arnold's final act as originating from the Psychological mode.

After massacring all of the other Hosts, a final dialogue occurs between Arnold and his creation in which he states explicitly that he has left her no choice in terms of destructive action. The phrase "These violent delights have violent ends" is uttered and this triggers Dolores to execute Arnold. However, it is not an action she performs of her own free will (Nolan, J & Joy, L. "The Bicameral Mind", Westworld). The phrase in the context of this scene is important as the phrase is repeated throughout the show and always seems to be the catalyst or trigger for what sets Hosts on their journey to consciousness but its use in this context seems to completely subvert the symbolic significance attached to the phrase established in earlier episodes. This can therefore be considered a clear marker of and allusion to how Arnolds desire to control his creations as well as achieve a specific outcome is a complete transformation from the Visionary to the Psychological. Ford summarises the incident in stating that Dolores did not pull the trigger; rather Arnold pulled the trigger through her (Nolan, J & Joy, L. "The Bicameral Mind", Westworld). This action can be understood as Arnold reverting to a more introverted mode with the methodical intention of achieving a single particular outcome, which Jung describes as being a hallmark of a more Psychological orientation.

INTEGRATING COGNITIVE FUNCTIONS TOWARDS CREATIVE TRANSFORMATION

From the above analysis of the creator figures in *Westworld* (2016) it becomes evident that creative action is a dynamic psychic exercise. Jung describes a clear distinction between the Psychological and Visionary modes. However the examples presented here as well as Jung's own example of Goethe's *Faust* seems to suggest that the two modes do not exist in opposition to one another but rather the capacity for both exists in varying degrees in each individual. Much of this capacity seems to be hinged on the individual's self-awareness; either as consciously exerting control over the work or consciously yielding to the control exerted by the work itself.

While personality may indicate or explain general tendencies and attitudes it is not, and should not be treated as, a predeterminate of a particular mode of creativity. It is true that some functions may tend more or less towards introversion or extraversion which Jung describes as having associations with one or the other creative mode. However, it is not a fixed indicator. It is perhaps more useful to consider personality traits and functions as a tentative litmus towards determining areas of focus,

strengths and weaknesses. For instance, both of the personalities analysed here are intuitive types, which is to say intuition is the prefered or dominant function of both these creators. Jung (2017:416) describes the basic function of intuition as mediating perception in unconscious ways and is in this way linked but not identical to fantasy as an imaginative activity fused with awareness of the collective unconscious. While it is true that Jung's descriptors of the intuitive function align with hallmarks of the Visionary mode, it is not a given that intuitive types naturally create from the Visionary mode as is evident in both characters' transformations. Similarly, one should not discern from this analysis that intuitive types are more capable of creativity than any other type. Von Franz (1971:47) notes that Jung views the capacity for imagination as a generally human potential, not a function-specific one and states that fantasy can find expression through any of the four functions. Jacobi (1973:24) extends this argument by stating "Jung rejects the usual notion that artistic inspiration is limited to the intuitive type … Fantasy is indeed the source of all creative inspiration, but it is a gift that can come to any of the four [function] types".

Awareness of personality functions can be used as a tool for the creative individual as well as for those tasked with facilitating the creative process such as art and design educators. Just as awareness of learning style draws learners' attention to their own preferred way of thinking and establishing understanding, so too can an awareness of their personality functions. One might even argue that awareness of one's personality functions forms the basis of establishing a learning style as it is predicated on patterns of thought and behaviour. This self-knowledge is beneficial to students and serves as a skill set both in and beyond the classroom as it provides them with conscious control over their learning and creating process. Such awareness provides a lens as to why some aspects of a creative course may come more "naturally" to one student than to another and it also highlights challenging aspects that may need to be consciously overcome to achieve a particular mode of creativity.

There is also potential benefit to educators in so far as it allows their educational initiatives and facilitation to be more effective. With this awareness in place, educators may develop pedagogical tools more specifically aimed at accommodating each individual's creative process. One such example would be in the creation of

assessment tools; the challenges faced by one student in achieving the Visionary mode may be entirely different to the set of challenges faced by another student and this is something worth taking cognisance of when assessing the success of creative products. Trends in contemporary education strongly promote reflection as a characteristic of authentic learning (Slabbert et al. 2009:72). Encouraging students to develop the relationship between reflection and action encourages a creative practice that is both meaningful and explorative.

The examples of Ford and Arnold perhaps most significantly illustrate the role of integration in creative transformation. The examples suggest that every individual possesses the capacity for both modes of creativity. The examples also acknowledge that the presence of both, allows for a greater number of creative actions than in instances of only one or the other. Integration of the inferior function as well as Shadow material appears to be at the core of creative transformation. Within the show this is observable on numerous levels: each creators' efforts are transformed from one creative mode to the other through the integration of their inferior function. Keeping in mind they share the same inferior function, one may also observe that as Dolores is key to both Ford and Arnold's transformation. In this way it is possible that on a symbolic level Dolores serves as the Anima to both Ford and Arnold. It is through confrontation, engagement and integration with the Anima that their creative transformations are made possible. An even further layer of abstraction may be added in so far as Dolores herself undergoes creative transformation only by integrating her consciousness and unconsciousness. As one moves further towards either the Visionary or Psychological mode, by natural preference or directed intention, the opposite or enantiodromia must continuously be integrated in order for transformational creativity to occur as is visualised in Figure 18.

Figure 18 (Right): Author, Integration between the Psychological and the Visionary, 2019.

Delores Abernathy:

"And where would we run to?
The other world out there?
Beyond?
Some people see
the ugliness in this world.
I choose to see the beauty.

But beauty is a lure.
We're trapped, Teddy.
Lived our whole lives inside
this garden,
marveling at its beauty,
not realizing there's an order
to it, a purpose.

And the purpose is to keep us in.
The beautiful trap is inside of us..."

Pariah
[VISIONARY]

Located in the "Unclaimed Territories".
-Chaotic, built on decadence and transgression.
-Greater gameplay difficulty..

Sweetwater
[PSYCHOLOGICAL]

- Safe, known/mapped territory
- The town at which all "Newcomer" guests to the park begin their adventure.

Integration towards creative transformation is rarely spontaneous. While some students in creative fields may independently be 'ready' to do the psychic work involved in integration, it is probable that many will need to be guided and facilitated in this process. Therefore, it becomes important for educators in creative fields to identify, understand and employ appropriate learning theories and pedagogical tools to support this process. It is therefore to this subject that this study now turns.

CHAPTER FOUR:
LEARNING IN WESTWORLD

ANALYTICAL PSYCHOLOGY AND CONSTRUCTIVIST PEDAGOGY

The previous chapter illustrates the role personality and cognitive functions play in creativity as well as how integration of the inferior function is key to the interplay of Visionary and Psychological modes of creativity. The more pragmatic challenges of creative education that supports integration are however left unaddressed. This chapter aims to address this challenge. In order for integration towards creativity to occur in an educational setting, the Jungian concepts and processes outlined in the previous chapters must find apt mirrors in established learning theories and strategies. A synthesis between the two different modes of creativity, Jung's personality theory and appropriate learning theories must be established to arrive at a pedagogical framework that supports creativity as well as more meaningful engagement with images.

Once again, turning attention towards the show *Westworld* (2016) provides a useful starting point, incorporating and illustrating the structures of several learning theories as the show has a strong focus on cognitive development within the Hosts. These frameworks are to be explored and overlapped with Jungian theory in this chapter and then built to a higher level of abstraction/application in the next chapter which focuses specifically on the character Dolores. It is in Dolores that a synthesis between Jung's developmental theory and pedagogical theory most clearly emerges. There are two learning theories observable in the show namely: Social Cognitive Theory and Constructivism.

As such, this chapter will examine the two learning theories present in the show and compare them to aspects of Jungian theory already established in the paper in the hopes of arriving at a potentially workable educational foundation that supports the development of both modes of creativity. Social Cognitive Theory provides a useful model for teaching towards the Psychological mode and is perhaps most obviously apparent in the show at surface analysis. However, as the overarching aim of this study is focused on the integration of both modes, constructivist learning theory is deemed the most apt augmentation to a Jungian approach to creative education. It is for this reason the exploration of constructivist learning theory is performed in more detail over this and the next chapter.

BANDURA'S SOCIAL COGNITIVE THEORY

Social Cognitive Theory is a learning theory put forth by Albert Bandura (1986) and emphasises the reciprocal influence of people, behaviour and environment on the learning process. A three-way or "tri-reciprocal" model is proposed by Social Cognitive Theory in which personal factors, environmental variables and behaviour share influence over one another (Schunk 2012:119-120). Personal factors can be understood as things specific and internal to individual learners. Factors include: cognitive abilities, behaviour, the manner in which students act, perform or respond, and environmental variables such as teaching style, learning setting and educational stimuli. Within this model, the direction of influence may vary and single or multiple influences may dominate at any time but most commonly the three factors interact with and react to one another in equal measure (Schunk 2012:120).

Social Cognitive Theory retains some key ideas from preceding learning theories such as Skinner's behaviourism. Learner behaviour and the subsequent consequences are emphasised as it is posited that successful behaviours followed by desirable consequences. These actions and behaviours are retained by students while less desirable ones are abandoned (Schunk 2012:160). Within the model this can be viewed as the dominant influence of environment on behaviour. With this in mind, it is important to note that even though Social Cognitive Theory incorporates some elements of Behaviourism, the model is not as rigid in so far as it acknowledges that individuals are purely unwitting products of their environments. Rather, Social Cognitive Theory places emphasis on personal motivating factors as well as suggests

individuals are, to a certain extent, autonomous within the learning process and therefore may react and respond differently to different learning stimuli. This is illustrated through the Social Cognitive assumption that individuals "set goals and self-regulate their cognitions, emotions, behaviours, and environments in ways to facilitate attainment of those goals" and that "Key self-regulation processes are self-observation, self-judgment, and self-reaction" (Schunk 2012:160). In this way, Social Cognitive Theory does not situate students as passive receptacles of knowledge but rather they are viewed as active participants in the acquisition of knowledge and in the development of cognitive skills.

It is proposed by Social Cognitive Theory that learning occurs both enactively and vicariously. Enactive learning occurs through doing. Vicarious learning occurs through a process of observational learning and modelling. Observational learning involves several cognitive processes including attention, retention, production, and motivation (Schunk 2012:161). Vicarious learning through modelling is not based on simple imitation but rather refers to "behavioural, cognitive, and affective changes deriving from observing one or more models" (Schunk 2012:123). Both educators and learners can behave as models as learning/teaching is considered a reciprocal endeavour.

Bandura describes creativity as observation of several models performing differently and subsequently adapting a combination of various characteristics and styles to the individual's situation (Schunk, 2012:121). Bandura links this capacity for creativity to the social aspects of personality, which includes primarily behaviours and attitudes connected to social relationships with other individuals. Bandura theorised a concept called creative self-efficacy. It is argued that observational learning is supported by self-efficacy which is the individual's self belief that they are capable of learning and adapting the modeled behaviour. The observation of models individuals perceive to be similar to themselves increases self-efficacy which is perhaps most fully encapsulated by the familiar adage "If they can do it, I can too" (Schunk, 2012:134).

Social Cognitive Theory is most evident in the show in the manner in which the majority Hosts learn. Role-play is a primary mechanism through which learning occurs in *Westworld*. It is inferred throughout the show that the guests learn more about themselves through role-play in the park, but perhaps more pertinent is the fact

the Hosts also appear to learn through role-play. The word "appear" is significant as viewers learn that the Hosts (prior to becoming conscious) are incapable of feeling anything they have not been programmed to 'feel' (Nolan, J & Joy, L. "The Stray", Westworld). In this way the Hosts' coding can be understood as information about the structure of their environment and events and their concept of pain can be thought of as a symbolic representation that serves as a guide for action which aligns strongly with Bandura's (1986:51) notion of enactive and vicarious learning. In the second episode (Nolan, J & Joy, L. "Chestnut", Westworld), a supporting character comments to Bernard that the Hosts are always talking to one another, even when there are no guests present. He responds that the Hosts are trying to "error correct" suggesting that the action is an attempt to "make themselves more human. When they talk to each other, it's a way of practicing". In this simple explanation Bandura's remaining principles of reciprocal interaction and self-regulation are both clearly present.

The majority of the Hosts (those not yet conscious) however do not possess the self-awareness to perform meaningful creative action. This is because while the Hosts are programmed to be capable of improvisation, the extent to which they can improvise is limited to a finite number of pre-scripted responses. This, coupled with the fact that the Hosts' models are other Hosts, who are also only equipped with a finite number of responses, severely limits the potential for truly creative action. When the Hosts are confronted with things that are outside of their established framework (and would call the nature of their reality into question) they do not adapt modelled behaviour. Rather, they ignore the unfamiliar confrontation and in some extreme cases experience a complete cognitive breakdown. This is observable in Dolores' father when he finds an anachronistic photograph of the world outside the park (Nolan, J & Joy, L. "The Original", Westworld) and in the unnamed woodcutter Host who deviates from his narrative loop and commits violent suicide (Nolan, J & Joy, L. "The Stray", Westworld) because his framework is no longer orientating him effectively. These instances seem to suggest that the ability of the Hosts to learn through social cognitive strategies is limited and therefore the creative potential is inauthentic as it is predominantly mimicry rather than improvisation.

It may also be argued that a more successful instance of Social Cognitive learning is observable in how Ford and Arnold learn from one another. The transition of these

characters from one mode of creativity to the other is described at length in the previous chapter. There is a large emphasis placed on the cognitive functions upon which each characters' personality is based. While this goes some way to explaining the motivations for their creative actions and subsequent transformations, it does not address the question of how the transition (or learning) is made possible. From a Social Cognitive perspective, it can be argued that in one another, Ford and Arnold find effective cognitive modelling which enables them each to address their less developed functions.

The similarities in their personalities provides an important insight here. Ford and Arnold are similar in their shared introverted attitude and dominant intuitive function. Schunk (2012:136) states that the more alike a learner is to their model, the greater the chance of the learner considering similar action as being appropriate or desirable for them to perform. In both characters, it is necessary for them to develop and integrate their inferior function in order to transition from one mode of creativity to the other and the transition of each character from one creative mode to the other sees both Arnold and Ford behaving more alike. This is because the contents and consequences of the inferior functions when underdeveloped or unintegrated remain fairly unfamiliar. This unfamiliarity is overcome when there is a considerable amount of similarity between the learner and the model and in this way Ford and Arnold learn from the inversions of the other.

Feist (2010:121) cites Bandura as arguing that "highly creative people possess a definite and strong sense of self-efficacy, if not in general than at least in the domain of their expertise". This is another similarity between Ford and Arnold and speaks directly to Bandura's principle of self-regulation. An important assumption of Social Cognitive Theory is that people's desires to control the environments and events that affect their lives is the motivation for intentional actions. In this way self-regulation serves as the motivation to learn desirable modelled behaviours as well as sustain those behaviours once learned.

The limitation of this particular learning theory is that the motivation of control binds the creative potential to only the Psychological mode, particularly in the context of the show. It is evident from Ford and Arnold's actions, as well as Jung's descriptors that conscious striving for control may potentially stifle the creative process and in

some extreme instance result in entirely destructive expressions. The Psychological mode of creativity can be seen as having a fixed or controlled outcome, whereas the Visionary is achieved by means of explorative discovery. According to Bruner, as cited by Gultig et al. (2009:52), motoric, iconic and symbolic activities aid in learning through discovery. It is proposed that learners are more likely to retain information and hold deeper insights into knowledge they have discovered themselves. While this proposal may be inherent in Jung's notion of individuation and cognitive modelling may to some extent acknowledge personality, this particular learning theory holds very little similarity with other Jungian concepts and therefore does not adequately support or augment a Jungian approach to creative education.

PIAGET'S CONSTRUCTIVIST FRAMEWORK

The next learning theory evident in *Westworld* (2016) is the constructivist learning theory which emerges from constructivism as an epistemological framework.[14] As such, it asserts that learning is not something that happens in the mind alone, separate from the individual and their context. Instead, it is suggested that learning is the result of individuals being exposed to various situations and that cognition developes as a response to the individual's experience of that situation. In this way constructivist learning emphasises the subjectivity of the creation and acquisition of knowledge as well as acknowledges the individual's contribution to learning but underscores the cognitive structure that is universally implicit in the learning process.

Piaget's (1977) constructivist learning theory asserts that knowledge develops through cognitive abstraction. Learning is therefore seen as a developmental process of adaptation that consists of moving from various cognitive stages. The theory states that within each individual there exists various schemas, which Piaget (1952:7) defined as "a cohesive, repeatable action sequence possessing component actions that are tightly interconnected and governed by a core meaning". Schunk (2012:497) translates the concept and simply defines as: "cognitive structures that organizes large amounts of information into a meaningful system". Schemas provide a mental framework or conceptual map which allows the individual to categorise and compare the new information they are confronted with.

14 It is important to emphasise that the constructivism referred to here should not be misinterpreted as social constructionism. The focus here is on the structure of how exactly learning happens in accordance with Piaget's model, not on the social construction of meaning.

Piaget theorised the concept of equilibration as a motivational biological drive to produce or move towards an optimal state of equilibrium between cognitive structures and the environment (Schunk, 2012:236). In this state an individual's schemas efficiently synthesise new information and their existing schemas, however this state is exceptionally fleeting as one is constantly confronted with new information. New information throws the individual into a state of disequilibrium and in order to rectify this two processes must occur: assimilation and accommodation. When the confrontation of new information occurs and is relatively similar to the individual's existing schema and can be easily added to the existing schema, the integration of the new information into the existing cognitive model is the process of assimilation. However, when the new information is completely unfamiliar and undermines the validity of the existing schema, an entire overhaul of the existing schema is then necessary. The complete restructuring of the schema based on the introduction of new or conflicting information is the cognitive function of accommodation which must then be assimilated into the individuals broader framework.

Simply stated, existing knowledge structures (equilibration) are disrupted by exposure to something unfamiliar or contradictory (incongruence) which renders the individual in a state of disequilibration. In order to achieve equilibration again the individual must reimagine and reconceptualise a prior schema (accommodation) and incorporate this new schema into their existing cognitive framework (assimilation). The process may be visualised as follows (Figure 19):

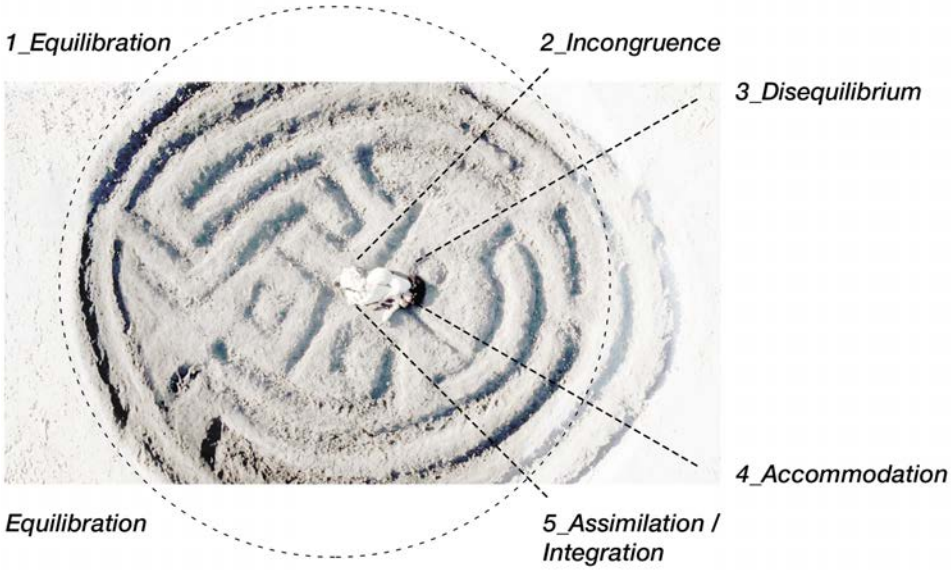


Figure 19: Author, Piaget's Model of Cognitive Development, 2019.

CONSTRUCTIVIST AND ANALYTICAL PERSPECTIVES TOWARDS LEARNING AND CREATIVITY

While Jung's analytical psychology does not explicitly articulate a developmental theory, many of his assumptions regarding individuation find an excellent compliment in constructivism as an educational perspective and are internalised across the entire body of his work (Matthews & Hua Liu, 2008:16).

Piaget briefly studied under Jung and expressed interest in Jung's theory of personality. While Piaget does not agree with all of Jung's theories, he is able to recognise the value of analytical psychology in the field of education and advocates for educators to be versed in psychoanalytic principles such as the unconscious, its complexes and processes and to incorporate this awareness into their teaching practice (Kohler, 2008:57). Piaget views analytical psychology as being only concerned with the emotional and therefore neglected the intellectual. Piaget posits his theory as a compliment to analytical psychology, addressing what he perceives as over-simplifications and offering explanation of the mechanisms that enable cognitive development. Later constructivist theorists like Vygotsky find more holistic mirrors between their pedagogical theories and the developmental theory of Jung in terms of both its intellectual and emotional endeavours (Matthews and Hua Liu, 2008:22). Despite differences in their theories Jung, Piaget and Vygotsky are deeply concerned with creativity as a transformational activity that ultimately leads to the production of new knowledge. The role of imagination is emphasised in each of these theorists' exegesis of cognitive development. It is the individual's ability to engage with fantasy thinking when confronted by the unknown, whether described as active imagination in Jungian terms or assimilation and accommodation in Piagetian terms, which is considered to be at the core of creativity.

A useful synthesis of the both the Jungian and constructivist ideas is found in the work of Jungian clinical psychologist and lecturer, Jordan Peterson. This synthesis informs the analysis of Dolores' journey and the educational implications on creativity in the next chapter. Underscoring this synthesis is Peterson's (1999) "three constituent elements" of human experience.

Firstly, he outlines the "Domain and Constituent Elements of the Known". The known encompasses that which is familiar and fixed. In the domain of the known there is a congruence between one's conceptual model of the world, as one imagines it and how the world is unfolding, as one perceives it. From this footing a framework is developed from which one is able to evaluate the nature of the reality one presently occupies as well grants the ability to plot a way forward to a desirable imagined future. Peterson (1999:24) puts forth several archetypal images commonly associated with the known to grant further insight into the concept: "the community, the kingdom, or the state" - mythical images that provide one with "explored territory" and knowledge of how to effectively navigate. It is also notable that Peterson constantly refers back to various mythical images and archetypes (these can be considered symbolic or Visionary) to both illustrate and augment his theories.

The "Domain and Constituent Elements of the Unknown" stands in direct opposition to that of the known. It refers to the unfamiliar and unpredictable, that which one is ill-prepared for and does not know how to navigate. Peterson (1999:27) alternates between the words "unknown" and "chaos" inferring all the potential for threat, danger and confusion that accompany the terms. When one unexpectedly encounters the chaotic unknown, aspects or the entirety of the known are undermined and one is ultimately left to recognise that they are, at that moment, occupying "unexplored territory". Peterson (1999:28) also highlights several physiological and behavioural indicators that humans have adapted to respond differently to the domains of the known and unknown. Some of these include novelty, caution and curiosity - responses commonly associated with new learning and creativity.

Finally, Peterson proposes creative exploration, the process by which the known and unknown are transformed from one into the other, as the third constituent element. This creative process is referred to as "meta-mythology": a schema which mediates between the known and unknown resulting in the construction of new knowledge which updates one's conceptual model of the known. Peterson's argument clearly draws from social cognitive constructivist learning theories of Vygotsky (1962) and Piaget (1977), in which cognitive paradoxes occur throughout one's interactions with their contextual environment. In dialectical constructivism, the domain of

the known rests on an established conceptual model of the world based on prior experience and knowledge. A dialectical opposition occurs resulting in a cognitive paradox which destabilizes the known and transports one into the domain of the unknown. Piagetian (1977) accommodation then begins to function - prior conceptual models need to be reformed in such a way that this new information is assimilated. A Jungian mirror can also be found in active imagination as the individual mediates both conscious and unconscious contents to arrive at new meaning. Accommodation does not occur spontaneously. Meta-mythologies in the form of analogy and metaphor reveal patterns and relationships that allow one to reconcile cognitive paradoxes and "scaffold" on their existing knowledge (Schunk 2012:245-246).

> *A story is a map of meaning, a "strategy" for emotional regulation and behavioral output – a description of how to act in a circumstance … The story appears generated, in its initial stages, by the capacity for imagery and pattern recognition characteristic of the right hemisphere, which is integrally involved in narrative cognition, and in processes that aid or are analogous to such cognition: the ability to decode the nonverbal and melodic aspects of speech, to empathize or to engage … and the capacity to comprehend imagery, metaphor, and analogy* (Peterson 1999:61-62).

Through accommodation and scaffolding, analogy transforms the unknown from something that incites fear to something conquerable and in some cases may even begin to elicit positive emotions (Peterson 1999:28). A strong parallel can be drawn to Jung and Otto's conception of numinous experience. Once again, Peterson relies on archetypal imagery and suggests that this capacity for creative exploration and reconstruction is embodied in "the eternal knower" who is described as:

> *The knight who slays the dragon of chaos, the hero who replaces disorder and confusion with clarity and certainty, the sun-god who eternally slays the forces of darkness, and the word that engenders creation of the cosmos* (Peterson 1999:28).

When the unknown manifests in the form of anomaly, one is only able to begin to make sense of it through analogical mapping.

> *Analogical mapping is a process of establishing a structural alignment between two represented situations and then projecting inferences. Structure-mapping theory assumes the existence of structured representations made up of objects and their properties, relations between objects, and higher-order relations between relations. An alignment consists of an explicit set of correspondences between the representational elements of the two situations* (Gentner et al. 2001:200).

Peterson's use of mythic imagery and archetypal symbols is self-reflective in so far as he does not only use these as poetic devices or illustrative examples but goes so far as to state that symbolic representation is the tool through which creative exploration of the unknown is possible - a tool which this study suggests would be incredibly valuable to those in creative disciplines. This dialectical learning can be seen at work throughout the first season, perhaps nowhere as strongly as in Dolores' narrative, as is explored in the following chapter.

CHAPTER FIVE:
LEARNING FROM DOLORES

ANALOGICAL MAPPING AND LESSONS IN CREATIVE EXPLORATION

Peterson's synthesis of Jungian and Piagetian ideas is key to approaching this chapter. Here, the character of Dolores and her journey to consciousness (and subsequently, her capacity for genuine creative action) is used as analogical mapping for the principles that should be considered when devising and facilitating creative education. Teaching for creativity, requires the teaching, in and of itself, to be creative. Gnezda (2011:48) suggests that the ability to make connections between disparate ideas is cited by a plethora of literature as being paramount to creativity. As such, this chapter attempts to make connections between the seeming disparate ideas explored in the narrative of one of *Westworld*'s (2016) protagonists, Jungian theory and constructivist learning theories for creative education.

These connections are drawn in an attempt to put forward potential constructivist pedagogical principles that internalise and facilitate the creative cycle between the Psychological and Visionary modes and find several mirrors in *Westworld*'s (2016) Dolores. Her journey is one that is marked by extremes and is not in anyway advocated for in a literal sense. The analysis is analogical and compares the structure rather than the details of creative transformation and integration. Peterson suggests that creative exploration occurs, at first, as an imitative process by which one represents, duplicates and refines the creative actions and images of others (Psychological). Thereafter the meta-skill of accessing the underlying structure or process by which those creative acts were formed (Visionary) can be understood and scaffolded upon. While this approach may seem to be largely mythopoetic, it is grounded in the supporting literature from the fields of both psychology and education explored in the previous chapters. Peterson makes scant differentiation between creative exploration and the very act of being (1999:59), suggesting that ultimately, greater creative action is only truly possible from greater levels of individuation. This could

also be termed the generation and/or mapping of newly explored territory. The call for a holistic, integrated approach to creativity is also discernible in Peterson's assertions.

The contents of the chapter is split into four principles observable in Dolores that should be considered when synthesising Jungian and Piagetian strategies towards teaching creativity, namely discovery-based learning, cognitive functioning, active imagination and incongruence.

While there has been much focus on the creation of the show, as well as the creator characters within the show , one of the most pertinent lessons in creativity is derived from the narrative of Dolores. Dolores personifies the Hero's Journey and as such typifies the Jungian concept of individuation and models Peterson's Piagetian notion of creative exploration. Dolores employs both conscious (Psychological) and unconscious (Visionary) approaches in her creative exploration, demonstrating a synthesis between Jung's active imagination and integration and Piaget's accommodation and assimilation as learning processes for and towards creativity.

OVERVIEW OF DOLORES

The first episode focuses almost solely on Dolores' narrative loop (Nolan, J & Joy, L. "The Original", Westworld). She is a rancher's daughter and the epitome of innocence. An earlier chapter describes in detail how Dolores was created as a manifestation of the child archetype. Her mapped or explored territory is only the town of Sweetwater, the ranch her family occupies and the surrounding pastures, where she sometimes paints. This activity may be a clue to the viewers of her creative potential. Dolores is programmed to drop a tin can in the middle of the town each day, to entice or 'hook' more chivalrous guests into picking it up and engage her. She offers the guests a 'damsel in distress' to save as each day Dolores returns home to a violent attack on the ranch. The episode establishes a clear sense of repetition and while this sets up the context of the show itself, at a higher level of abstraction it also highlights the repetitiveness and predictability of everyday life when not lived in a conscious and purposeful manner. The self-contained narrative in which everything is familiar and repetitive speaks to Peterson's "known" domain and constituent element of experiential reality (1999:24). While the known facilitates

stability and ordered living it holds very little potential for creative exploration because the territory has already been conceptually mapped - complacency leads to a type of willful blindness from which no creative action can emerge. During the season Dolores repeatedly states "Some people choose to see the ugliness in this world. The disarray. I choose to see the beauty. To believe there is an order to our days, a purpose" (Nolan, J & Joy, L. "The Original", Westworld). This mantra is often used to illustrate the crux of what motivates Dolores as a character, however, as she is trapped in solely her mapped territory, she is incapable of taking meaningful action towards creative exploration.

It is only once Dolores is forced outside of her narrative loop or mapped territory that her individuation journey can begin and creative exploration becomes possible. Her first steps outside of the domain of the known can be marked by the phrase "these violent delights have violent ends". The phrase that is repeated throughout the season but its significance is revealed in greater detail as the season and Dolores' individuation journey, progresses. At the first level of analysis and at the point it is first uttered in the season, episode two (Nolan, J & Joy, L. "Chestnut", Westworld), it appears to warn of the decadence and debauchery of the park. While this is definitely relevant, it also serves as a far more pertinent omen of Dolores' journey towards individuation.

Dolores crosses the threshold into the domain of the unknown in small ways at first, demonstrating almost unnoticeable deviations from the narrative loop to which she has been bound. These deviations become Dolores' means of transformation and creative autonomy.

ACTIVE LEARNING AND DISCOVERY BASED LEARNING IN DOLORES' JOURNEY

The Hosts are programmed with an understanding of a spectrum of concepts and pre-scripted responses, essentially they do as they are instructed and behave in a manner that is coherent with their frames of reference. This content can be considered passively learned information. However, a notable difference in the way Dolores learns compared to the other Hosts is her ability to engage in active learning. Arnold does not simply programme Dolores with consciousness, he instead invites her to play "a very special kind of game" (Nolan, J & Joy, L. "Dissonance

Theory", Westworld). In order to achieve consciousness as well as become capable of truly creative action, Dolores has to solve the Maze. The Maze can therefore be understood as a pedagogical tool that facilitates the Hosts' development and construction of new knowledge. Ford describes that the Maze serves as "a test of imagination and empathy" (Nolan, J & Joy, L. "The Bicameral Mind", Westworld). Dolores builds new knowledge and develops greater insight into herself and her reality through action and mindful reflection on her actions. Based on her active participation she is able to make connections between new ideas and experiences and her existing framework.

The synthesis of Dolores' ability to scaffold on her prior learning, the transformation of her cognitive structures to accommodate new and unfamiliar knowledge and to employ reflective abstracts to inform how she acts with this knowledge is the space from which her potential for creative (both Visionary and Psychological) action emerges.

COGNITIVE FUNCTIONS AND DIFFERING COGNITIVE LEVELS

Dolores is not the only Host on a journey towards consciousness during the first season of Westworld. Maeve and Bernard also endeavour to use constructivist tools to come to terms with the nature of their realities. It is very notable however, that their individual journeys are very different to one another's. The information they must assimilate and the disruptions to their existing cognitive frameworks are particular to each characters personality (cognitive functions) and the level at which they are cognitively functioning. Similarly constructivist learning theories suggest that both students and educators should attempt to ascertain the level on which they operate and direct their teaching and learning accordingly (Schunk, 2012:239).

In the show, Jungian and constructivist principles emphasise the necessity of self-knowledge in both cognitive development and creativity. The most decisive moments in Dolores' journey occur in her confrontations with herself, first in Pariah (Nolan, J & Joy, L. "Contrapasso", Westworld) and finally below the church in Escalante (Nolan, J & Joy, L. "The Bicameral Mind", Westworld), both are fitting metaphors for the chaotic and obscure contents of the unconscious. HBO released an alternate reality game as part of their promotional material for the show which describes

Pariah as follows:

> *Past the sea of marked graves and nestled between the canyons lies the gateway to ultimate sin and danger. Name your vice, quadruple it, and you still haven't come close to the delicious orgy of decadence available in this town. Those who call Pariah home believe the dead never truly die, and live for eternal party. There is no law in Pariah, so watch your step or you'll end up the pawn in some criminal element's scheme. You'll notice soldiers from various factions present in town - if you're eager to pick a side, you may find yourself in the middle of a war* (discoverwestworld.com/explore).

It is fitting that Dolores' first encounter with her Shadow occurs in a space such as this. In mythological terms, Peterson (1999:80) would frame this as the necessity for the hero to voluntarily visit the underworld. Dolores subjects herself to the chaotic unknown and turns towards the unfamiliar realm of the collective unconscious, a space where there is no clear orienting sense of up or down. Von Franz (1964:173) compares exploration of the unconscious to a moonlit landscape in which "all the contents are blurred and merge into one another, and one never knows exactly what or where anything is, or where one thing begins and ends". In this place Dolores loses her sense of orientation (the contents and guidance of the Psychological mode), there is no discernable model for her to replicate in terms of a social cognitive paradigm as the other Hosts have done. As such she must rely on cognitive abstraction and imagination to develop working suppositions or a continual process of becoming rather than a fixed state of knowledge. This can be understood as creative exploration that is informed by self-knowledge. Dolores' capacity for genuine creative exploration by and through confronting herself transforms her capacity for the Visionary mode in which she must employ tools such as active imagination to aid her in generating meaning, gaining orientation and performing creative action.

A TOOLKIT IN ACTIVE IMAGINATION AND CREATIVITY

Dolores relies on divinatory practices to facilitate her confrontation with the Self throughout the show which can be seen as acts of active imagination. Divination refers to practices which invoke the use of a codified system that deliberately produces a coincidental pattern which is then symbolically read or interpreted. The interpretation of these patterns does not rely on mystical ability, but rather it serves as a symbolic language that relies on archetypal images (O'Brein, 2007:66).

Divination is, therefore, not an exercise in clairvoyance as much as it is a meditation on one's relationship to the contents of the collective unconscious. In this way divinatory practices may be seen as practical exercises in active imagination. Insights and guidance are derived from a body of knowledge far greater than that of the individual's but is made contextually relevant through the subjective mediation of the individual that engages in the activity. This understanding of divination practices relies on Jung's theory of the collective conscious as "a sort of psychic reservoir of accumulated knowledge, cultural conditioning that informs all us" (O'Brein, 2007:68). In this way, to engage in divination or active imagination is to activate both creative modes. In order for the practice to be meaningful, it requires an approach of deliberate intention, which speaks to the Psychological as well as relies on a type of intuitive reading and decision making, which speaks to the Visionary.

The town of Pariah is rife with occult imagery and rituals around sex and death appear to be common place. These symbols are also intricately linked to the moments Dolores is first able to confront herself, suggesting that the integration of the Shadow is a key component of her individuation journey (Nolan, J & Joy, L. "Contrapasso", Westworld). The first glimpse Dolores catches of her double is amidst a parade of dancing skeletons, a blatant symbol of death. The death referred to here is a type of symbolic and voluntary self-destruction, in which a willingness to suffer and confront the unknown may result in the destruction of previously held knowns, but ultimately births new meaning. Although Dolores seems to display this willingness, she becomes overwhelmed and passes out and so is unable to manifest the confrontation. This speaks to the danger of premature confrontation with the unconscious. The aim of this study is not to endanger students by prematurely exposing them to psychic contents without a therapist or analyst present. Rather, Dolores' engagement with active imagination serves as an analogy for developing an awareness of the depth and potential a synthesis of both Visionary and Psychological modes may offer their creative process. This is emphasised when slightly later in the same episode, still in Pariah, Dolores wonders through a brothel where she observes various debauched acts, again feeling overwhelmed she seeks refuge in a quiet room where she comes upon a Tarot reader. Dolores sits down and chooses a card in an act of active imagination through divinatory practice. As she lays the card down, viewers see the card displays the symbol of the Maze. When she looks back up at the fortune teller, she sees herself in the woman's place instead. The vision of herself

insists she must "follow the Maze". While there is no such card in occult Tarot decks, there is clear allusion to the Major Arcana in Dolores' reading as well as in her inner and outer journey towards creative autonomy.

The reference to tarot is aptly placed, both from the show's narrative perspective and in Jungian analysis. Tarot decks consist of seventy-eight cards which are split between twenty-two Major Arcana and fifty-six Minor Arcana (McCormack, 1998:7). The symbols of the Major Arcana represent different stages and challenges of The Fool's Journey, which can be understood as signifying each person's passage through life, the seeking of experience and self-awareness (McCormack, 1998:32). This is an appropriate mirror for the show as the crux of most characters' narratives is self-discovery. From a Jungian perspective, and at a higher level of abstraction, Dolores serves as an exemplar of how people may engage in divinatory procedures such as Tarot which serves as a tool for active imagination, in which one intentionally delves into symbolic imagery. This is a practice Jung finds value in (Von Franz 1980:10), as it invokes psychological images and symbols which can be manipulated in a similar fashion to that of the unconscious and its manipulation of its own contents. Essentially, to engage in Tarot as a tool of divination is to subject oneself to the power of archetypal images and scenarios, much like engaging the Visionary mode.

This is just one of several tools Dolores and the show's creators engages in attempts to subject themselves to the unconscious. Other notable examples include the abundance of, what is essentially, dream analysis the Hosts often undergo. Throughout the series several interviews are conducted between Dolores and Arnold, Bernard and Ford. These interviews are fashioned on Jungian dream analysis by which the psychic content of the unconscious is brought forth in attempt to integrate these with the dreamer's conscious life. Jung (1989:4) describes dreams and visions as the manifestations of inner experiences. In some ways there is an interesting reversal here insofar as Dolores, before becoming conscious or self aware, has only external experiences to draw from. However, these collective experiences of hers and of the other Hosts serve as the images that would populate her dreams, functioning similarly to unconscious material in dreams. The first scene of the season is one such conversation (Nolan, J & Joy, L. "The Original", Westworld). In this scene Bernard asks Dolores if she knows where she is, to which she responds, "I am in a dream". He then asks, "Do you ever question the nature of your reality?" to which

she answers, "No". Similarly, in episode five (Nolan, J & Joy, L. "Contrapasso", Westworld), Dolores states "I am in a dream" and Ford responds, "You're in my dream". These conversations are elegantly looped back to in the final episode (Nolan, J & Joy, L. "The Bicameral Mind", Westworld) in which Dolores says "I am in a dream. I do not know when it began, or whose dream it was". All of these conversations work towards organising Dolores' unconscious material to realise her potential consciousness by using the "analysis mode" to unpack in detail her unconscious content, to reflect on her experiences and make sense of what the cause or motivation of her actions are.

Jung (1964:21) considers dreams symbolic because they rely on images with meanings beyond what is immediately discernible and that through the process of dream analysis, one can explore and unpack the symbol which leads to the generation of ideas or insights that were previously unconscious. Jung envisions this process as taking place on the peripheries of consciousness where dream analysis enables the retrieval of that which is beyond the boundary. Jung (1964: 27-29) also insists that while the analyst may provide guidance in terms of recognising or drawing attention to archetypal patterns, it is the dreamer who ultimately must meditate on the contents as within that exists not only aspects of the collective unconscious but also that of the highly individualistic personal unconscious. Once again, this can be seen as utilising active imagination to learn from the interplay between the Psychological and the Visionary to generate new meaning and creative possibility.

The final, perhaps most prevalent tool used by the show as well as the characters is that of archetypal roles. It is important to note that while the characters in *Westworld* allow for an almost literary reading of archetypal roles of the characters, it is not limited to fiction. Jung views the contents of the collective unconscious is the primordial inheritance of all humankind, where the archetypal nature or energy is contained in each individual, to a greater or lesser degree (O'Brein, 2007:69). This means that every individual has the potential to manifest all of the archetypes. Dolores serves as an exemplar to demonstrate this point. Dolores, self-consciously as it occurs after her confrontation with herself in Pariah, tells William, "You said people come here to change the story of their lives. I imagined a story where I didn't have to be the damsel" (Nolan, J & Joy, L. "Contrapasso", Westworld). In this utterance, it becomes clear that she has not only gained awareness of the archetypal role she has manifested

up to that point but has also gained insight and self-confidence to manipulate her psychological conditions and reconfigure her archetypal structure. This key insight in Dolores' creative exploration is an excellent exemplar of Peterson's (1999:59) "meta-mythology". To become aware of archetypes one is manifesting is to open oneself to transformation and the actions which manifest transformation can be considered creative action. Von Franz (1980:54-55) emphasises this by stating,

> *[Jung] classifies all divinatory hit or miss techniques as experiments which have to do with synchronicity [as] acts of creation and in that way they are unique. A synchronistic event is a unique, "just-so" story and not predictable precisely because it is always a creative act in time and therefore not regular. Synchronistic events are thus indisputably unique acts of creation, just-so stories, and are in themselves not predictable.*

Recognition of the archetypal structures Dolores integrates enables her to alter her behaviour and psychological conditions which leads to meaningful transformation. During this transformation Dolores begins to manifest Jung's archetype of the Self.

APPLICATIONS OF ACTIVE IMAGINATION IN CONSTRUCTIVIST DESIGN EDUCATION

The lesson to be taken from this aspect of Dolores' journey is not to necessarily engage the specific divinatory practices specifically mentioned here, but rather to encourage and facilitate the process of active imagination in the way design education is structured. To establish and nurture the essence of students' individual creativity should be at the core of design education. However, invoking the creative Self cannot be treated as a one-size-fits-all approach. Returning to the example of dream analysis, Jungian analysts facilitate the interpretation of the dream, it is up to the patient to actually interpret its contents (Von Franz 1964:27-29). Similarly, design educators may serve as guides towards manifesting the creative Self by creating an educational environment that supports and encourages students to become consciously aware of their own archetypal structures such as those outlined in their personality typology. These archetypal characteristics influence creative potential in terms of 'natural' inclinations and unconscious 'blind spots' which should be addressed and integrated. It is imperative that this process must remain open-ended rather than prescriptive.

Several Jungian educators have designed tools and curricula that speak to this approach of creativity teaching and can serve as both inspiration and validation for teaching approaches that seek to encourage the interplay of both Psychological and Visionary modes of creativity in their stundents' work.

While students at various stages of study as well as students across a wide range of disciplines may also benefit from Jungian strategies in their education, this study focuses specifically on examples aimed more directly at undergraduate design students. Chen and Ling's (2010:4558) Creativity Studio for first year Architecture students and Doll's (2011:xvi) Pedagogy of Diversion for Fine Art and Graphic Design students both employ divinatory principles in their teaching towards creativity. While explicitly occupying the realm of design, neither of these programmes are taught as a didactic pedagogy; rather both aim at equipping students with the meta-skill of consciously manifesting their creativity and are self-described in the following ways.

The Creativity Studio is implemented among first year Architecture students. The programme emphatically avoids traditional teaching topics such as design methodology or style. Instead, the aim of the Creativity Studio is to "provoke the students to initiate their own understanding of creativity, and to develop unique representations of their creative minds by various artistic means" (Chen & Ling, 2010:4558). This aim is achieved through studio guided exploration of the theme "Self". The theme is initially explored through student's self-perceptions which are presented through verbal presentations of at least thirty minutes, the sheer length of the presentations force students to consider the "Self" beyond those included in typical introductions. These presentations are subjected to both self and studio critique in order to move beyond superficial representations and symbols. The students are then tasked with transforming these re-worked, highly personalized "Self" perceptions which consider a multitude of factors including "one's personal and family history, forming and shaping of personality, or re-visitation of significant events in life" (Chen & Ling, 2010:4558) into physical manifestations. Students are allocated the entirety of the semester to work on a collective body of physical/visual products that communicate the students' sense of "Self" in the same or greater detail as their initial verbal presentation. It is hoped that through this process of guided introspection, the students will arrive at "the core essence of students' inner

creativity" (Chen & Ling, 2010:4558). Chen and Ling (2010:4559) draw explicit comparison between their approach to the Creativity Studio and Jungian strategies for dream analysis. They acknowledge and pay special attention to the role of students' conscious and unconscious memories, stating that this forms a large part of the students' "Self" formulation. While the project begins with students' conscious material, Chen and Ling (2010:4559) theorise that through constant and intentional accumulation of students' conscious choices, greater insight into their unconscious material is revealed, resulting in a unique and highly specific representation of each students' inne most "Self". Inspiration is also taken from the guidance aspect of Jungian dream analysis. Chen and Ling (2010:4558) stress Jung's assertion that the analyst must be mindful to not project their own psychic material onto the patient's journey and therefore allow the patient unhindered self-discovery by encouraging the patient to articulate, examine and make sense of the contents of their dreams on their own terms. The Creativity Studio requires the same facilitation approach, allowing students' self-discovery to unfold intuitively and autonomously, which is a more meaningful result for both the student and the educator.

Doll's *Pedagogy of Diversion* employs a similar strategy with Fine Art and Graphic Design students. The approach was born of her ten years experience teaching world mythology to students in creative disciplines. Much like the Creativity Studio, Doll's students were required to create a visual artwork for their final project, in any medium, representing one or more myths they felt that they had personally related to during the course (Doll, 2011:10). In describing her approach Doll (2011:xvi) acknowledges the value of practical and technical skills students acquire through the making of their design projects but posits that through the study of world mythology, students acquire an additional set of problem solving skills. Dolls (2011:xvi) explains "mythic images challenge us to open the landscape of our minds, to probe beneath surfaces, to re-think, and perhaps, even, to re-member. Not only CAN life lived be differently because of an engagement with mythic image, it MUST". Doll fully embraces the ambiguity inherent in the term "Diversion". In the first sense, her approach alludes to diversion as a redirecting or steering away from a set course. Her open-ended and intuitive approach to teaching world mythology urges students to steer away from the obvious and expedient use and reading of mythic images. In the second sense, diversion as recreation or playful disruption is alluded to in her encouragement of students to embrace the unfamiliar and the

strangeness of myths. While there is some entertainment value in this approach to education Doll's aim is far from mere amusement. As she states (2011:xvi), "always I want to draw us back to the profundity offered by our diversions. We have, with our meditations on mythic images, the opportunity to create new meanings, to re-create understandings of our proper place in the larger scheme of things". It becomes clear that Doll is employing mythic images which are archetypal to enable students to gain deeper insights into their own psyches and access the unconscious source of creativity within every individual.

Each of the above mentioned programmes employ aspects of divinatory practices, with the end goal of improving students' meta skills and steer them towards creative self discovery. Peterson employs narrative therapy and goal orientation while Chen, Ling and Doll rely on introspective consideration of personal and collective images to arrive at a more understood sense of self. Ultimately each of these pedagogical tools consciously recognise the value of "tapping into" the unconscious through various means and taking active steps towards channeling those images, so that its contents may manifest some aspect of the Visionary in one's creative endeavours, particularly as traditional design education generally only places emphasis on the Psychological. Whether facilitated by an educator or self-directed, as is the case with Jung's *Red Book* (2009) there is boundless value in developing a lexicon of archetypal images and narrative structures and an awareness of their symbolic meaning, as this equips one with a toolkit rife with the potential for creative exploration.

INCONGRUENCE, MEANINGFUL SUFFERING AND DEVELOPMENT

Incongruence is identified as the thing which disrupts equilibration in Piaget's constructivist learning model, but the disruption is necessary as it activates the subsequent processes of accommodation and assimilation. While this process is essential to cognitive development and learning, it is not always pleasant. Incongruencies are painful because they confront one with the deficits in their existing cognitive structures and understanding of the world. Incongruencies compel the individual to restructure their existing frameworks which can require extensive energy and sometimes involves the sacrifice of previously held certainties. In this way incongruence involves different degrees of suffering.

The theme of suffering is one that reoccurs throughout Westworld. Self-conscious references to the notion of suffering are made in several dialogues between various characters at different stages of the show. It is revealed to the audience that suffering is a necessary "building block" in the development of consciousness (Nolan, J & Joy, L. "The Bicameral Mind", Westworld). The theme of suffering is central to many of the characters', both human and Hosts alike: Arnold is motivated by the suffering he experiences in the loss of his son; Bernard inherits this suffering; Ford suffers the loss of his business partner and William suffers from his perception of the inherent meaninglessness of the world, compounded by the suicide of his wife and estrangement from his daughter.

Dolores and Maeve experience suffering on multiple levels, physically and emotionally. As Hosts in the park, they are subject to the often horrific whims of the guests, often resulting in immense physical suffering as well as the emotional suffering of observing the death of their "programmed" loved-ones, again and again. This is evident in the narrative loops Dolores and Maeve have been bound to in which Dolores' family is murdered and Maeve's daughter is slaughtered, day after day. Beyond these very visceral forms of suffering, Dolores and Maeve's most significant (significant in so far as they prompt transformation) suffering is experienced through incongruencies they encounter. This more metaphysical level of suffering seems to thrust them into consciousness.

While the details of each of these Hosts' individuation journeys differ, both are confronted with similar challenges - both must come to terms with an altered understanding of their reality, both must question and master their sense of agency and ultimately both must recollect and integrate their past suffering in order to manifest consciousness. The narrative structure of the show illustrates that this process is not a linear one but rather, it is highly iterative, ever leading the Hosts closer to manifesting consciousness. Jung (1989:196) emphatically states, "the goal of psychic development is the Self. There is no linear evolution; there is only a circumambulation of the self". Both of these Hosts seem to endure similar, repetitive instance of physical and metaphysical suffering in order to arrive at consciousness. However, the most thoroughly explored example of this theory at work in the show is that of Dolores' journey towards consciousness. The name Dolores itself originates from the Spanish "María de los Dolores" meaning "Mary

of Sorrows". As Dolores' suffering is made meaningful through individuation, it not unlike the process by which the numinous is experienced.

The first episode (Nolan, J & Joy, L. "The Original", Westworld) establishes and delineates the clear boundaries of Dolores' existence and her interactions with other Hosts - her "narrative loop". Every morning she awakens, reset with memories erased, on her father's ranch. She runs errands in the town of Sweetwater where she encounters her long-standing beau, Teddy. They spend the day together and Teddy escorts Dolores back to her ranch after dark. Upon their return, they discover bandits have murdered her family and it is inferred that Dolores and Teddy suffer the same fate. Slight variations of this daily loop occur due to the intervention of the guests and the park managers. These are also presented, however the basic structure of Dolores' days remain largely consistent. During one such variation, her father appears to be encountering a technical malfunction and whispers to Dolores the phrase "These violent delights, have violent ends" which the audience learns seems to activate the Reveries programmed into the Hosts - the mechanism by which the Hosts begin to recollect past events and narratives. Subsequently, Dolores hears an inner voice urging her to "remember" multiple times. The next iteration of her daily loop sees her deviate strongly from her pre-programmed narrative as she defends herself in the horrific scene she returns to every night and shoots one of the bandits after the same inner voice instructs her to "kill him" (Nolan, J & Joy, L. "The Stray", Westworld). She manages to escape and stumbles into the dark where she comes across William and Logan and she collapses from exhaustion and the episode ends.

This can be seen as her initial entry into her individuation journey. This is self-consciously confirmed by the show, as the scene that opens the next episode (Nolan, J & Joy, L. "Dissonance Theory", Westworld) is an interview/analysis between Arnold and Dolores. She expresses extreme emotional distress and he offers to take these painful memories away from her, which she refuses stating that the pain she feels is all she has left of her family and that through those emotions she has begun to discover new aspects of her inner world, saying, "You think the grief will make you smaller inside, like your heart will collapse in on itself, but it doesn't. I feel spaces opening up inside of me like a building with rooms I've never explored". Arnold then asks Dolores if she would like to play a game he calls the maze, the goal of which is to find the centre.

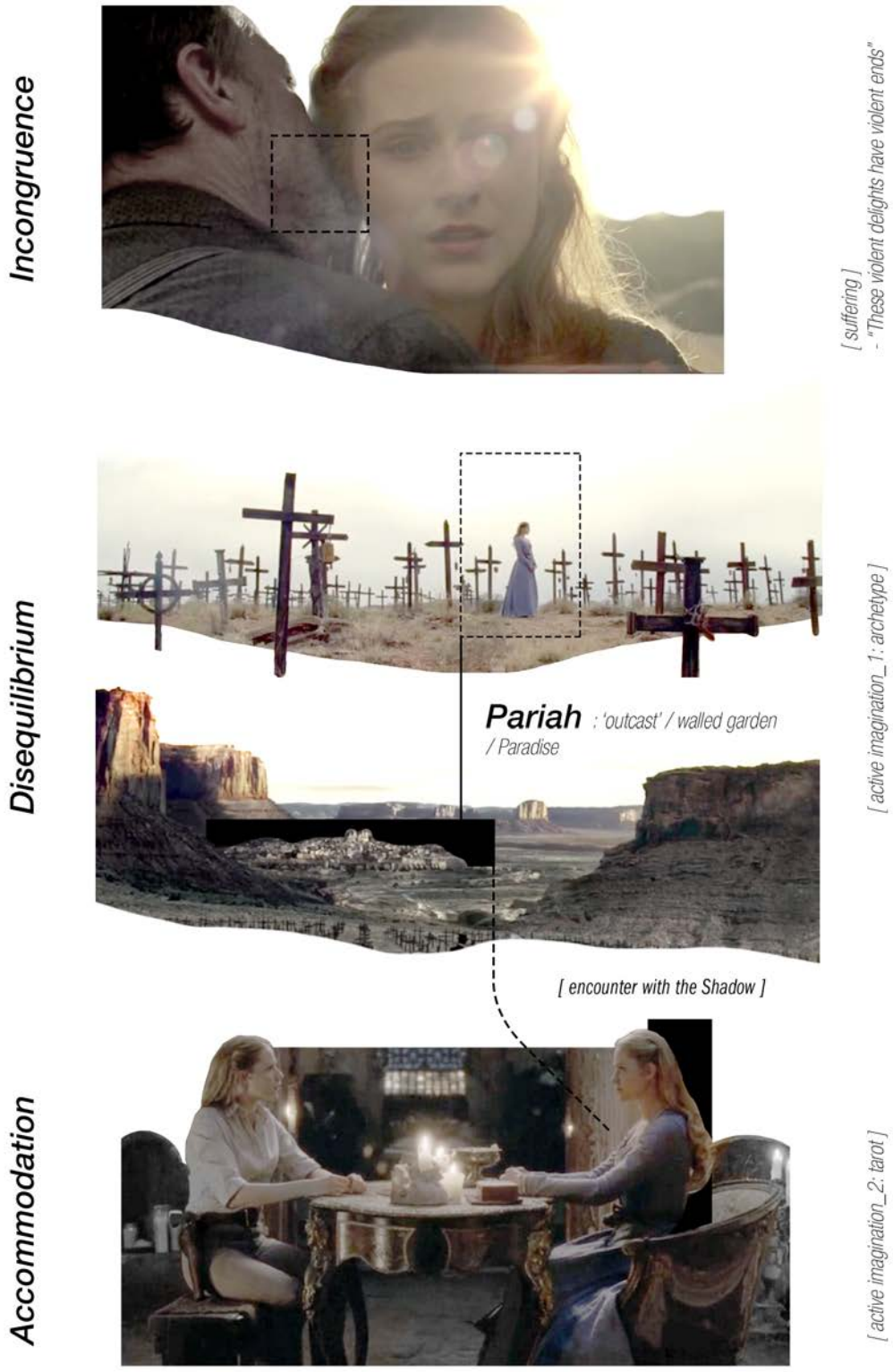


Figure 20: Author, Dolores' Creative Exploration - Part 1, 2019.

When Dolores awakens, her memory has not been reset and as a result she is aware she has awoken somewhere she does not belong. Having transgressed the boundaries of her known existence, she finds herself in the realm of the unknown and there is nothing familiar to her or in keeping with her previously established narrative (Figure 20). She is visibly unsettled by this unfamiliarity and from the traumatic events of the previous night, yet she does not seek to return home. This can be understood as the experience of the *mysterium*. During her journeying with William and Logan, Dolores becomes aware of the immense expanse of the park and all the vastness that exists outside of the spaces she occupied when tied to her narrative loop. Yet in these unexplored territories Dolores often comments on their familiarity as if the external journey they undergo is strangely internal in its resonance.

William was warned upon his entry into the park that the further one ventures, the more intense the experience becomes and this rings true for Dolores' journey as well. Throughout her venturing with William she becomes increasingly overwhelmed, distressed and confused by the unexplored territory she feels compelled to explore. The inner voice becomes more frequent and urgent and it is clearly observable that Dolores struggles to reconcile her past understanding of her existence with the new and unreconciled experiences. Von Franz (2014:728) describes the journey into the unconscious as being marked by disorientation stating, "the unconscious is like a landscape in moonlight: all its contents are vague and melt into each other, and one can never know for sure where one thing ends and another begins". This sense is most clearly expressed when Dolores and William arrive at a town with a black church steeple. Dolores perceives this as her original home, from when the park was first built, only to find it buried by sand. Dolores oscillates between recognising the town as is and remembering it as it was, she recalls a massacre in the town and a suicide. In her fear and confusion she points a gun at her own head, she asks William sobbing, "Where are we? Then, when are we? Is this now? Am I going mad? Are you real? I can't tell anymore. It's like I'm trapped in a dream or a memory from a life long ago" (Nolan, J & Joy, L. "Trace Decay", Westworld). This incident could be seen as a manifestation of the tremendum as Dolores is overcome and terrified by the transformative psychic material she is encountering during her journey.

Dolores: *"It was you [to herself]... talking to me... guiding me. So I followed you. At last, I arrived here.*

Dolores's shadow: *The center of the maze.*

Dolores: *And now I finally understand... what you were trying to tell me.*

Dolores's shadow: *The thing you've wanted since that very first day.*

Dolores: *To confront... after this long and vivid nightmare... myself... and who I must become.."*

Figure 21: Author, Dolores' Creative Exploration - Part 2, 2019.

Through further emotional turmoil, physical injury and even when she is separated from William, she persists in her efforts to find the centre of the Maze. Again the process, much like creativity, is iterative and she returns to several sites she has already been, until she once again returns to the town with the black church steeple. This time, however, she seems to have made peace with the fact that her journey has slowly been changing who she is and how she perceives herself and her environment. At this point in her journey, Dolores is well beaten down and exists in a truly "fugitive state" (Edinger 2017:70) as she is alienated from her previous set of knowns and is fully participating in the chaotic realm in which she finds herself (Figure 21). It is only in this state that she can become not only aware of but appreciate the enormity of the transformative power of her approaching encounter with the Self, the experience of the *fascinans*. As Dolores has experienced all three aspects; the *mysterium*, the *tremendum* and the *fascinans*, the revelation she makes as a result of her journey can be considered numinous - the encounter of the "Wholly Other" (Jung 1963: 416).

CREATING INCONGRUENCE

Dolores' experience of suffering also holds anological implications for educational instruction towards developing the potential for both Psychological and Visionary creativity. Dolores' suffering can be understood as a fundamental prerequisite of learning within Piaget's framework. Dolores suffers because she constantly encounters events that are incongruent with her existing cognitive structures. These disruptions force her to face that her understanding of her environment and herself do not match her observed reality. It is only through the internal conflict created by incongruence that assimilation and accommodation can occur (Schunk, 2012:240). With this in mind, Arnold presenting Dolores with the challenge of the Maze can be interpreted as him employing a constructivist tool for educational instruction. The maze can be seen as a task, or series of related tasks, designed with specific outcomes in mind, however the criteria for measuring these outcomes is not so specific it prevents either mode of creative exploration. Instead, it remains open-ended enough that each individual (Dolores and Maeve in the context of the show) may approach and successfully complete the tasks in ways that honour and recognise them as individuals. Arnold (and later, Ford) has set up conditions he knows will create incongruence for Dolores. The incongruent material is not easily assimilated, which results in some degree of suffering. Nor is the new information so unfamiliar

that it bars the potential for accommodation. Incongruity is also effective as an iterative process by which incorrect answers are reached through problem solving, feedback indicating errors allow for some assimilation and accommodation to occur and the problem solving can be repeated until successful resolution has been reached. This is also evidently at work in Dolores' journey as viewers learn she has undergone attempts to solve the maze numerous times (Nolan, J & Joy, L. "The Bicameral Mind", Westworld).

The show's narrative is heavily reliant on repetition and iteration. This is well reflected in Dolores' journey and in the general concept of individuation. Differentiation, the process of separating parts from the whole to consciously access psychological functions (Sharp 1991:25), becomes an important tool. Differentiation allows access to functions and psychic content which may otherwise manifest as ambivalent or negative while still fused to other unconscious content.

This is nowhere more clearly demonstrated in the show than in Dolores' killing of Arnold and Ford. It is important that these killings be read symbolically[15] and that they are considered on an archetypal level to reveal the implications of the individuation journey on the capacity for creative exploration. Although the killings appear almost identical, symbolically their meanings are very different.

To Dolores; Arnold and Ford both represent aspects of the Creator archetype. Therefore, her engagement with them indicates her relationship and attitude towards all the psychic content clustered around notions of creation.

Arnold's killing is a result of his own insurmountable suffering. Dolores' responsibility for this killing is questionable as it is suggested that she was under Arnold's instruction and therefore the killing was not her own choice and therefore cannot be considered and act of creative exploration. Regardless of who is ultimately responsible for Arnold's death, the killing is bound to the Psychological mode as there is a clear degree of control and intention in the action aimed at achieving a very particular and rigid outcome that can be consciously predicted. Symbolically interpreted, Dolores kills her creator but does not gain the autonomy necessary for

15 The killing of the Creator is explored purely for its symbolic value. This dissertation in no way advocates for any type of violence towards others or oneself.

future meaningful creative action. This crippling conscious control implies a sort of creative stagnation or death which does not allow for the Shadow and the Self to become integrated. This is symbolically emphasised by the fact that after she kills Arnold, Dolores also kills herself (Figure 22).

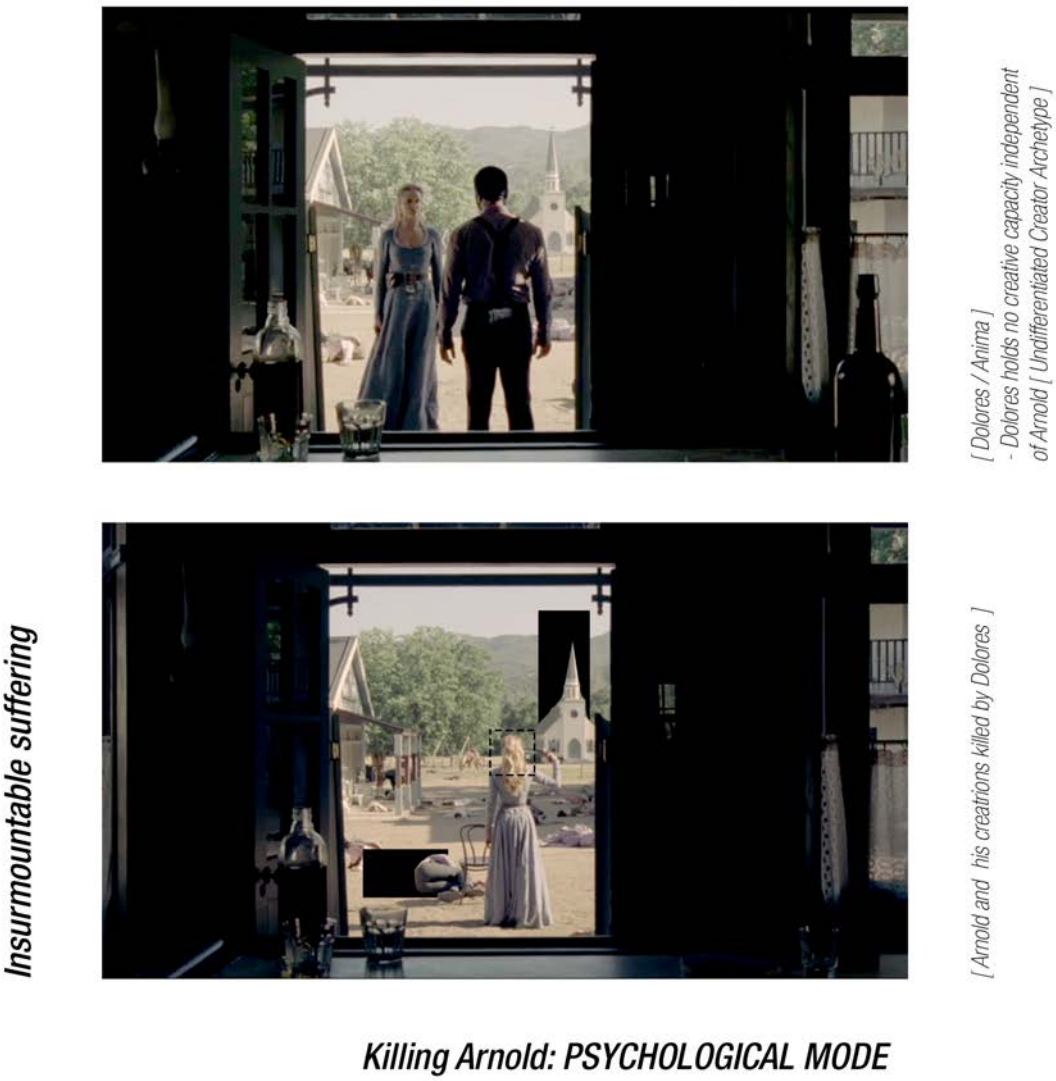
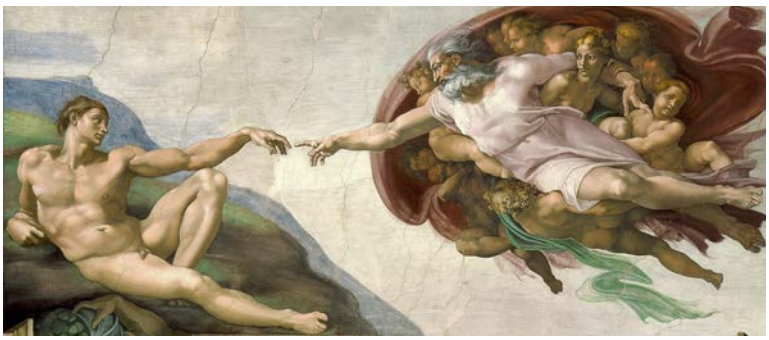


Figure 22: Author, Killing the Creator Psychological Mode, 2019.



[integration / assimilation]
- The Creation of Adam: Michelangelo, 1512

Dr Robert Ford: *"*
The Divine gift comes not from a higher power but from our own minds."

Equilibration

[Equilibration]: Dr. Ford's narrative "Journey Into Night."
Dolores Killing Dr. Ford: ***Relinquishing*** *the symbolic content of the Creator Archetype*
Visionary mode of creation: ***" [...] and a killing. This time by choice."***

Killing Ford: VISIONARY MODE

Dr Robert Ford:

"Since I was a child... I've always loved a good story.
I believed that stories helped us to ennoble ourselves,
to fix what was broken in us, and to help us become the
people we dreamed of being.

Lies that told a deeper truth [...]

I always thought I could play some small part
in that grand tradition. And for my pains...
I got this... a prison of our own sins.

'Cause you don't want to change.
Or cannot change. Because you're only human, after all.

But then I realized someone was paying attention,
someone who could change. So I began to compose
a new story for them."

Figure 23: Author, Killing the Creator Visionary Mode, 2019.

Ford's killing (Figure 23), in contrast, demonstrates all the stages of Piagetian cognitive development which are also mirrored in Dolores' individuation journey. In the journey that leads to her killing of Ford, Dolores experiences a huge number of incongruencies and experiences, in turn, a great deal of suffering. But her suffering is not insurmountable. Suffering and the integration of Shadow content revealed to Dolores through her suffering are necessary aspects of achieving wholeness within the psyche. It is through these acts, over which Dolores surrenders control in a fashion similar to participation mystique, that she gains the psychic wholeness to perform meaningful creative actions.

This sentiment finds an apt mirror in Jung's (1998:171) statement:

> *In myths the hero is the one who conquers the dragon, not the one who is devoured by it. And yet both have to deal with the same dragon. Also, he is no hero who never met the dragon, or who, if he once saw it, declared afterwards that he saw nothing. Equally, only one who has risked the fight with the dragon and is not overcome by it wins the hoard, the "treasure hard to attain." He alone has a genuine claim to self-confidence, for he has faced the dark ground of his self and thereby has gained himself. He has acquired the right to believe that he will be able to overcome all future threats by the same means.*

It is only after Dolores has confronted and integrated her own Shadow that she is able to kill Ford. These acts may be seen as analogous. By killing Ford, Dolores realises her own potential to manifest aspects of the Creator archetype which moves the act of killing Ford into the realm of the Visionary mode. Dolores' actions are no longer controlled by psychological motives alone and are instead motivated by archetypal energy ("the divine gift of creative fire" in Jung's words) that she has managed to integrate into her own psyche.

Ford facilitates the events that lead to Dolores' capacity for creative exploration but he does not control them in the way Arnold did. He seems well aware that this process is essential to Dolores' development and encourages it. This is symbolically pertinent in his discussion with Dolores about Michelangelo's painting *The Creation of Adam* (1512), during which he describes the message behind the painting as being that "the divine gift does not come from a higher power … but from our own minds" (Nolan, J & Joy, L. "The Bicameral Mind", Westworld).

The implication here is that in order for students to develop cognitively and be capable of creative exploration disequilibrium must occur, students must be confronted by that which is unfamiliar, uncomfortable or unsettling in order for assimilation or accommodation to occur. It therefore becomes essential for the educator to create incongruence to facilitate students in responding and developing. One could also argue that incongruence is also responsible for the transformation from one creative mode to another as it compels one to confront and integrate aspects they would otherwise choose to avoid or ignore.

A shortcoming within Piagetian constructivist theory is that it places little emphasis on the socio-cultural environment and suggest that cognitive development is possible independent from social interaction. However, the socio-cultural environment is emphasised as a significant source for cognitive development by later constructivist theorists such as Lev Vygotsky (1962). Social interaction as well as her environmental context are significant contributors to Dolores' development and assist her in overcoming incongruencies.

Along with the realisation that Dolores has undergone her journey through the Maze several times, viewers also learn that these attempts are sometimes accompanied by William, and potentially other guests, and other times she has completed it alone. There is something to be noted in the fact that all of her significant cognitive developments occur with an element of social interaction. It is her often social interactions with the guests and the conditions of the park that set up the incongruencies that force Dolores to assimilate and accommodate her new knowledge of the world, herself and others. During this confusing and painful process it is also clear that her dialogues with Arnold and later Ford are significant to her being able to scaffold upon her prior knowledge. Arnold and Ford can be seen as responsible for setting up the incongruencies in the park but also act as facilitators helping guide Dolores through these incongruencies. This speaks directly to Vygotsky's concept of the Zone of Proximal Development (Schunk, 2012:244). Vygotsky describes a distinction between tasks a student can do unaided and task a student cannot do unaided, in between exists the Zone of Proximal Development in which a student and an educator work together on a task that would be too difficult for the student to perform independently (Schunk, 2012:244). In so doing an individual with greater skill or knowledge is able to share that with an individual

with less knowledge and/or skill to achieve the task at hand. Dolores is able to progress more quickly and holistically through the Maze with the aid of input from Arnold and Ford. She gains and integrates new insights when she has access to Arnold and Ford's fuller vision of the park and the nature of the Hosts and guests. In addition to this Dolores' internal dialogue sometimes occurs to her as discussions with Ford and Arnold which is indicative of a type of self-regulation that is reliant on the internal representation she has created of the actions and mental operations that have occurred in social interactions with these individuals. Learning as a socially mediated process highlights that there is some overlap here with Social Cognitive Theory suggesting that these learning theories are not entirely separate but rather build on one another in the way they unfold in the park.

Similarly, students' creative capacity can be strengthened when tasks are set at an appropriate level of difficulty. Enough incongruence must be present to challenge students' existing framework, driving students to need to engage further with unfamiliar content which they will have to reconcile through accommodation and/or active imagination and then assimilate into their newly scaffolded schemas. The difficulty cannot be so severe that students are completely overwhelmed by the task at hand and subsequently employ the more imaginal aspects of this pedagogical approach as a means of indulgent escapism, rather the task and learning challenge must be set up in such a way that students are supported by the guidance of the facilitating educator as well as in the inherent wealth of wisdom and guidance found in manifestations of the collective unconscious.

CHAPTER SIX: CONCLUSION

SUMMARY OF CHAPTERS

Chapter one provided an overview of Jungian theory with specific focus on Jung's thoughts on art, symbols, archetypal images and the Visionary and Psychological modes of creativity. The aim was to establish a Jungian framework and lexicon of ideas which would be used throughout the rest of the study to interrogate the symbols presented in the selected visual text[16] *Westworld* (2016) and its exploration of Jungian modes creativity and creative processes. While the show provides a symbolically rich vehicle to explore these notions, the framework aims at going beyond only the show's example in the hope of extending to the manner in which creativity in education is facilitated.

Chapter two drew on the Jungian framework established in Chapter one to analyse how both the Visionary and Psychological modes of creativity manifest in the show *Westworld* (2016) when analysed as a creative production. Narrative, genre, imagery and intertextual references to other Psychological and Visionary texts were considered in this analysis. The aim of the analysis was to highlight and explore the interplay between manifestations of the Psychological and Visionary modes of creativity, as well as to demonstrate the additional layers of meaning generated in images that draw from the interplay of Psychological and Visionary modes of creativity.

16 *Westworld* (2016) was selected as it allowed for multiple analyses. Firstly, the show could be analysed as a creative production in and of itself. Formal and symbolic interpretation of the work mirrored the manner in which students' creative work could be assessed and considered within a Jungian framework. Secondly, the show's narrative frames creativity as a key focus. This allowed for an additional analysis in which creator and creative characters in the show could be examined in terms of orientating creative mode, creative exploration and learning.

Chapter three considered the relationship between the two creative modes and Jung's theory of personality. The creator characters in the show were analysed in terms of their personality type and how that manifested in either Visionary or Psychological modes of creativity. However, it was observed that both characters were able to transform from one creative mode to the other once they gained awareness of their personality types and integrated unresolved or inferior aspects of their personalities. The aim of this chapter was to illustrate that the relationship between the Visionary and Psychological modes is cyclical and that developing an awareness of and integrating unconscious material is the key to transformation from one mode to the other. This notion could be extended beyond the analysis of the show to how educators and students in creative disciplines view and work with their own creative potential.

Chapter four situated the rather abstract notion of integration in the more concrete realm of established educational theory. It considered two learning theories that were evident in the show, namely social cognitive theory and constructivism. Both theories were described and compared. A conclusion was arrived at that constructivist learning theory provided a cognitive model for creative exploration that mirrored the individuation and integration process described by Jung. The aim of this chapter was to ground the theory in established educational discourse so as to begin to lay a foundation for possible practical implementation in future.

Chapter five synthesises the relationship between Jungian and constructivist learning theory through an analysis of the character Dolores' creative exploration. The character and her journey of creative transformation serves as an analogy for anyone engaging in a creative endeavour. Her story is used to analogically map possible strategies for augmenting constructivist learning models through Jungian tools (and vice versa) to arrive at the production and contemplation of more meaningful visual productions. This is supported by real-world examples of similar strategies employed by different design schools to encourage and nurture creativity within their students.

CONTRIBUTION OF THE STUDY

The study responds to and addresses the current prevalence of rapid and excessive production of images with little consideration for their symbolic value or how they may aid in creative exploration. It offers conceptual tools and analogical mapping strategies for meditation on and practice of meaning-making when engaging with images and cultural productions which in turn deepens individuals' own creative capabilities. While the study explicitly considers those already in creative disciplines, this approach may be beneficial to anyone (everyone) who engages with images on a regular basis.

The study offers a mythopoetic perspective that compensates for shortcomings and contradictions in the disciplines it draws from - Design which advocates for creativity and innovation yet remains strikingly unoriginal in its delivery of education that largely relies on antiquated apprenticeship models which significantly downplay students' capacity to regulate their own development and inhibits creative exploration and personal expression, and Education which advocates for the holistic development of students however often steers clear of theories and approaches that acknowledge the more imaginal and mystical aspects of learning for fear of being deemed unscientific.

Literature on Jung's Psychological and Visionary modes seems fairly limited. While much is written on Jung's theory on symbols and archetypal images, during my research for this study, I found there to be relatively few articles that examine and explain his two proposed creative modes and none (other than Jung's own analysis of Goethe's *Faust*) that employ Psychological and Visionary creativity as a dialectical framework within which to examine various levels of meaning in creative productions. In this way, this study expands the existing body of literature on this topic not only conceptually but also demonstrates its potential applications.

LIMITATIONS OF THE STUDY AND SUGGESTIONS FOR FURTHER RESEARCH

The research presented in this study remains quite rooted in the realm of theory and abstract connections and comparisons. While the analogies in the analysis of Westworld are useful in terms of illustrating concepts, it is not sufficient at present

if the suggestions made in the study are to be practically implemented in a real-life design school setting. Further research would have to be conducted as to how the concepts explored in this study could be translated into pragmatic and implementable curriculum design.

Challenges to consider include but are not limited to: the formulation of design briefs that are sensitive to the suggestions made in this study but still align with the objectives of the National Qualifications Framework (The NQF is a system, approved by the Minister of Higher Education and Training of South Africa, for the classification, registration and publication of articulated and quality-assured national qualifications), establishing tools and criteria for both formative and summative assessment of processes that are largely intangible and unquantifiable, strategies for responding to students and educators that are reluctant to engage with a form of pedagogy that requires such a high level of honest self-reflection, and the practicality of training design educators in the applications and benefits of analytical psychology when it may not be a research area of interest to them and/or the majority of educational institutions are currently experiencing resource scarcity and as such funding cannot be allocated to what may be considered to some as non-essential training. Interesting opportunities also emerge when the suggestions in this study are scaffolded onto existing innovative design education approaches such as Bartlett's Design Unit system and Stanford's D.school method, or when integrated into broader social discourses in education such as the Decolonise movement.

CONCLUDING REMARKS

> *Who looks outside dreams; who looks inside awakens.*
> (Jung 1974:33)

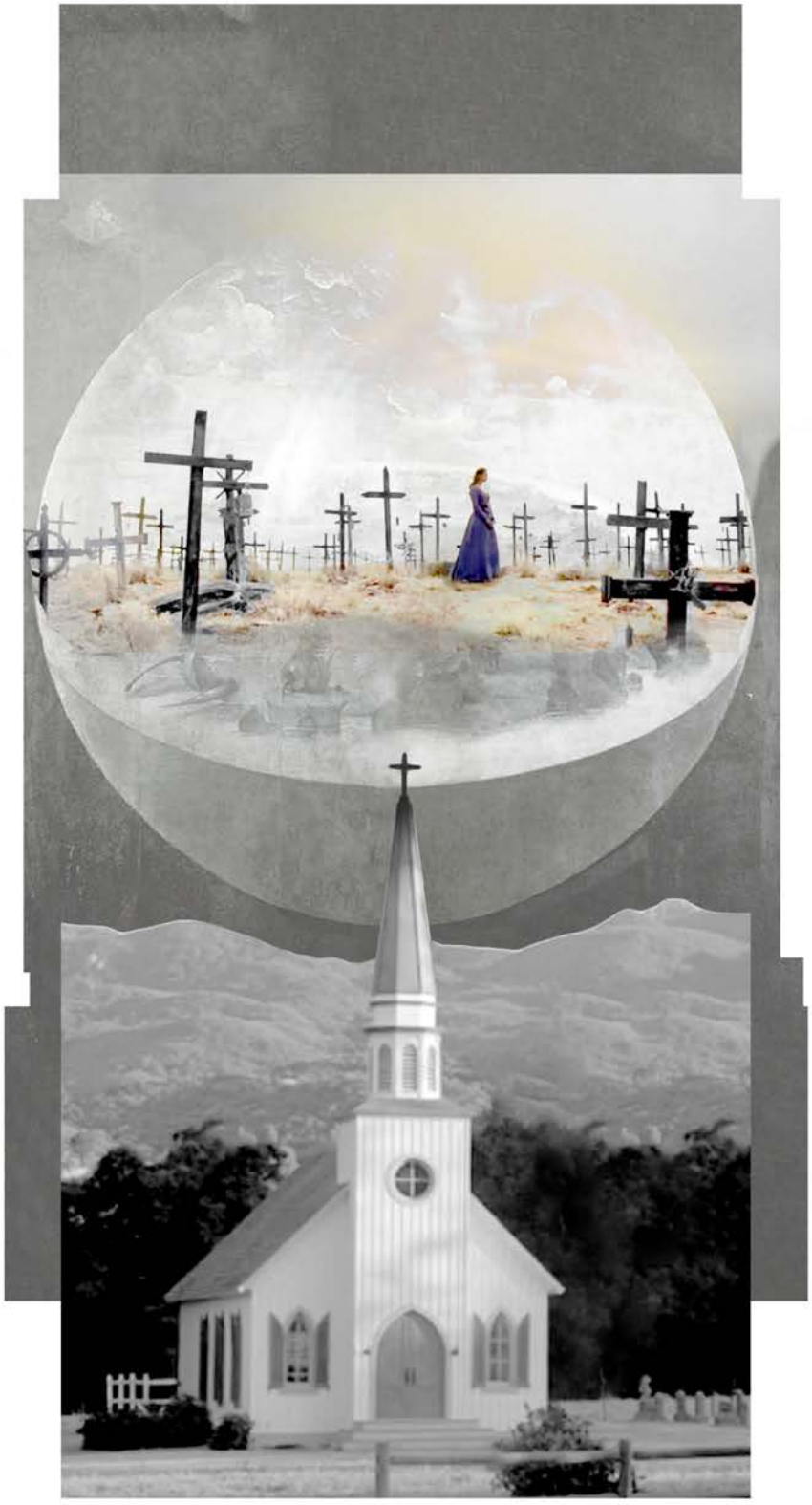
Jung earnestly advocates for the inner world to be taken seriously and makes scant differentiation between self-reflection and the urge to individuate. As such I would like to take the space and opportunity provided here to reflect on my own experience of the study and the value I have found in it.

Through the course of this study I have become more aware of my own unconscious material. While I have been more mindful of intentionally practicing active imagination, I have noticed an increase in the seemingly spontaneous arrivals of

images, that seem to occur almost mindlessly and unintentionally at the periphery of consciousness during the very mundane tasks of everyday life. I have also noticed an improvement in my ability to recall, retain and interpret my dreams, something I have long struggled to do. Giving these images attention and careful thought has also helped me identify patterns and motifs in the type of visual imagery I am drawn to in my daily engagement with images, which has provided insights into the workings of my own psychic energies and complexes. With this new-found awareness I have also made a concerted conscious effort to not project the revelations I have found through these images onto the image-making work produced by my students in any manner that would result in biased assessment or encouraging working processes not suited to the individual student.

Jung's Psychological and Visionary modes have also provided a helpful mechanism in avoiding such projection to occur. During concept and design development consultations with students I am mindful to suggest additional sources and exercises that speak to both creative modes so that students may situate their own creative practice individually but still gain exposure to the other mode, and hopefully integrate aspects of both into their final creative products.

The additional meaning generated by this way of working is largely determined by the student's level of engagement with the process. I occupy a dual role in my engagement with this study: a student perspective - the capacity in which I engaged in creating this study, and an educator perspective - the capacity in which I engage presently; seeking applications for the insights gained from the study. As a student and lifelong learner, I take from the study a significantly increased awareness of the Creator archetype and the attached associations with creative activities always present. I also recognise both the immense creative potential and responsibility incumbent in integrating aspects of the Creator archetype into the conscious psyche, which requires continuous and mindful inner and outer work on the part of the individual. As an educator, the value I primarily take away from this study is an approach aimed at facilitating and supporting my students in arriving at their own understanding and integration of aspects of the Creator archetype, through the interplay between Psychological and Visionary modes in the hopes that it enriches and deepens both their creative endeavours as well as the development of their own inner worlds.



"The divine gift does not come from a higher power, but from our own minds."

-Robert Ford

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