THE ART OF AN OTHER WORLD

THE DEVELOPMENT OF A SOURCE AESTHETIC FOR AN ORIGINAL THEATRICAL PRODUCTION

BY REBEKAH TISCH

A thesis presented in partial fulfilment
of the requirements for the degree of
Masters in Design at Massey University,
Wellington, New Zealand.

1.0

ABSTRACT

Fig. 1

This creative research seeks to develop a foundation of core design principles for an original theatrical musical set in a fictional video game, *Other World*. The resulting design will facilitate a visually consistent source material for the conceptual design of the game, and its adaptation to theatre.

Other World is an original, Broadway-bound musical which is set within a Massively Multiplayer Online (MMO) video game. Weta Workshop was tasked with concepting the look of *Other World*, and I was the Art Director for the design process. Original Broadway productions are usually less successful than adaptations (Davenport, 2014), as they often lack an established aesthetic or any stylistic constraints for the production. In comparison, theatrical adaptations from film or even print media have the 'blueprint' of source material to provide a design foundation. In addition to having no pre-existing content, this project sets up a complex challenge in the need to both visually reconcile the contrasting media of digital games and theatre, as well as to safeguard the aesthetic as it is adapted to a musical production.

In my role as Art Director for *Other World*, I intend to explore the process of creating a rule-based visual style guide for this original MMO world and to use this as the basis for the creation of a key character and environment within the game. I will then explore the design process for the retention of visual integrity for this character and environment as it is translated from its original digital video game context to that of physical theatre.

2.0 CONTENTS

3.0

ACKNOWLEDGEMENTS

Fig. 2

This project would not have been possible without the support of the inspiring *Other World* team, in particular Ann McNamee, Hunter Bell and Jeff Bowen. I also want to convey my particular thanks to Richard Taylor and Tania Rodger of Weta Workshop, ardent champions of both my career over the last 18 years and this project during the last two.

My project supervisors, Tanya Marriot and Paul Tobin, are both owed my sincere gratitude for all the hours they put toward coaching me through my first foray into tertiary study. The Massey College of Creative Arts support team, in particular Kendra Marston, Caitlin Ligo and Paula Andrade, were also dedicated and generous with their time.

The Art of Other World required many wonderful artists to bring it to life. I want most particularly to thank Chris Williamson, Weta's resident genius and all-around good guy, and the masterful Hannah Dockerty, for their personal investment in this project. In addition, concept artists Ben Wootten, Ken Samonte, Greg Tozer, Tahiwi Trenor-Hunt, Adam Middleton, Dane Madgwick, Jeremy Hanna, Vaughan Flanagan, Gus Hunter, Andrew Baker, Iona Brinch and Adam Anderson have all contributed their unique skills to the development of this world.

Finally, I want to thank my amazing parents, Ivo and Sarah, for always assuming I'd succeed, rather than hoping, and for their ever-present encouragement.

4.0

PERSONAL VALUES STATEMENT

Fig. 3

"What is it that seemingly makes the video game and the musical incompatible?..." *(Oborn, 2017)*

4.0

4.1 INTRODUCING *OTHER WORLD*:

A GAME WRAPPED IN A THEATRICAL PACKAGE

This unique project - an original Broadway-bound musical production called *Other World* - is, simplistically summarised, about two people transported into a fictional video game. In development since 2014, it began as an ode to the gaming community and a desire to see the diversity and interests of that community represented in the traditional world of musical theatre. Tony and Drama Desk-nominated writer Hunter Bell teamed up with Broadway Composer/Lyricist Jeff Bowen and Ann McNamee, Professor Emerita of Music Theory at Swarthmore College, to develop an original show about an MMO game with a strong fan following that is to be ended by its creators. For Jeff, this evokes the moment when his beloved game, *City of Heroes* (2004) was likewise prematurely terminated (Morris, 2013).

Combining the social and relational issues of the gaming community with a fantastical Tron-like adventure, the narrative follows the journey of both an ardent gamer and passionate non-gamer and their battle to survive the game they are unwillingly drawn into.
Boundaries between interactive gaming and immersive theatre are beginning to blur, and the use and acceptance of new technologies on stage is transforming the medium(Gardner, 2010). The writing team felt that these factors, along with the strength of complimentary societal and cultural currents, have enabled an encouraging creative climate for *Other World*, a show unlike any on Broadway before it...

Fig. 4. Ann McNamee, 2019

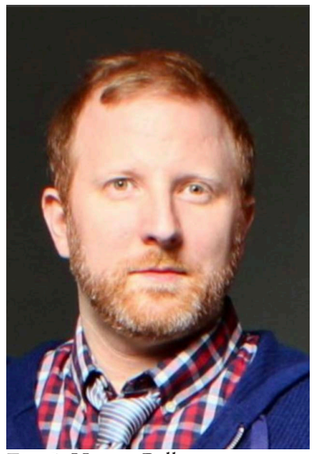


Fig. 5. Hunter Bell

Fig. 6. Jeff Bowen

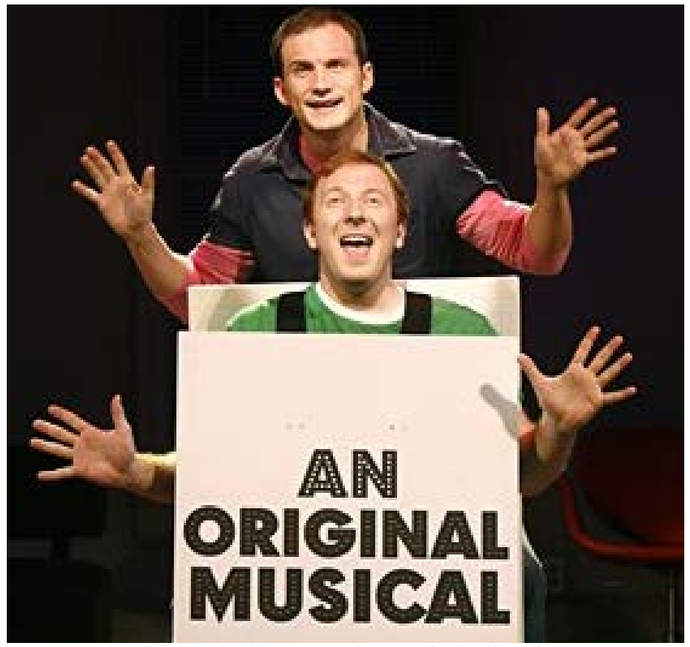


Fig. 7. Hunter Bell and Jeff Bowen perform in *[title of show]* on Broadway, 2008

4.2 THE ULTIMATE OPPORTUNITY FOR A WORLD-BUILDER...

The visual design for the original theatrical musical, *Other World* was never going to be a simple brief. Perhaps if it was a musical based on an established video game, or an established musical with a new video game setting, it might have been reasonably straightforward. However, the combination of an original theatrical narrative and composition, with an original setting, is an exercise with potential that is hugely expansive. Hunter Bell, Jeff Bowen and Ann McNamee knew early in their project that it would require elaborate and polished visuals to bring a believable video game world to life.

An original licence, massive in creative scope, *Other World* is a production unlike others vying for Broadway glory. While various aspects of the game featured in the show

are familiar to fans of the MMO genre, *Other World* is not based on any game in existence yet the narrative has a significant reliance on its distinctive and beautiful visuals. While the story of the show gives us the basic mechanics of the game, there is no precedent for what it looks like. This production needs and deserves a visual source material on which to build a distinctive aesthetic direction, and while this source would be a fictional video game, it must still exist in service to the requirements of the theatrical production.

In other words, the design of *Other World* needed a source aesthetic from which to become a theatrical reinvention of itself. Therefore it made sense to first **design the look of an original video game world, and then to adapt it for the stage.**

While the reasoning and method for this approach will be unpacked in this document, it should first be understood that this is not a game design brief, nor is it purely a theatrical design brief. **This project is about the development of a source aesthetic; a visual style and language that informs the look of both a video game and, once adapted through a theatrical process, a musical production.** The style of the world is presented in the form of a style guide, and the adaptation will involve the transformation of one Non-playable Character (NPC) creature and its environment into a theatrical incarnation.

4.3 ENTER THE CREATORS OF IMAGINARY WORLDS

The creative team behind *Other World* turned to Weta Workshop to consult on the visual development of the show, intrigued by the potential combination of cinematic design methods and practical theatrical magic. They hoped that Weta could help to provide the creative 'blueprint' for the Intellectual Property (IP) based upon the world-building techniques that have been honed for over 25 years in the film industry with clients such as James Cameron, Peter Jackson and Steven Spielberg.

As an Art Director at Weta Workshop, I have been involved in the world-building and visual development of numerous film, television and genre IP projects. I have worked as a Concept Artist in the entertainment industry since 2003, and I have always had a particular passion for the establishment of new properties from a design perspective; creating unique cultures, grounded eco-systems and distinct stylisation for imaginary worlds.

While I have contributed development work for a number of video games, the project *Other World* represents the first time I have designed for live theatre. My role of Art Director is uncommon in a theatrical production, but the clients were open to an innovative approach to their equally innovative musical. In the final phases of this research, I departed from client input into the creative direction, in order to forge an independent design conclusion.

Fig. 8.

Fig. 9.

Fig. 10.

5.0

INTRODUCTION

A SUMMARY OF PROJECT CHALLENGES AND AIMS

Fig.11.

5.0

5.1
AN IP THAT NEEDS A CHAMPION

An original show with no visual source material to draw upon is automatically disadvantaged in the world of musical theatre (Midgley, 2016). Even a show that desires to significantly re-interpret its visual precedent is at least able to determine what it *doesn't* want to be at an early stage in development. Starting with nothing is difficult without a strong and unified vision for the look of the show, as there are too many potential avenues to explore and creative outlooks to satisfy. The traditional hierarchy in American musical theatre does not usually accommodate a production designer, or any creative solely responsible for defining and championing the visuals of the overall production. This responsibility is divided among heads of the various departments, overseen by the Director who has to be equally invested in the non-visual aspects of the production. This system relies on communication and a shared understanding between departments, two things that can be highly effective but are by no means guaranteed. So while creating the IP itself is a significant challenge, preserving the intent of that source material and championing it within the complex and myriad restraints of the theatrical medium is another matter.

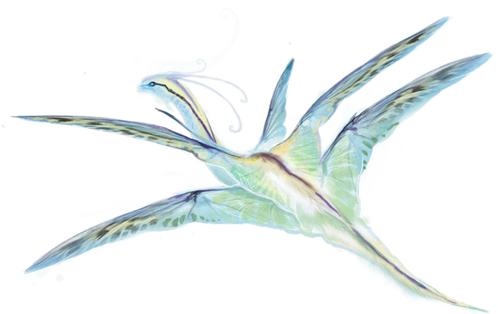


Fig. 12. Hylox Concept by Ben Wootten, 2019.

5.2
ALIGNING TWO VERY DIFFERENT MEDIA

"Games are growing, breaching into other spaces to define their own territory. Theatre is doing the same, snatching at its neighbours, testing its barriers. They make spaces of their own but the overlap is quietly growing."
(McMullan, 2014)

An IP that is created to straddle the divide of two contrasting forms of artistic expression is potentially understood better as transmedia. More specifically in this case, the IP is first a game, and then a theatrical show. *Other World* is an online multiplayer game situated in a purely digital landscape, which defines a key difficulty in this project; the m anifestation of a digital landscape on a physical stage. When considering the existence of a digital world in a stage environment, it seems impossible not to be drawn to the conclusion that digital media, or even virtual reality technology should be employed in its execution. It is clear that using technology just because you can (Love, 2015) can result in an 'often clunky marriage of live and filmed elements' (Love, 2015), and undermine the show's ability to engage its audience with an empathetic or imaginative response. The challenge here is whether there is the potential for technological advances to be made on stage without damaging the integrity of the live performance - in other words, aligning the digital and physical in support of the overall vision within the creative blueprint.

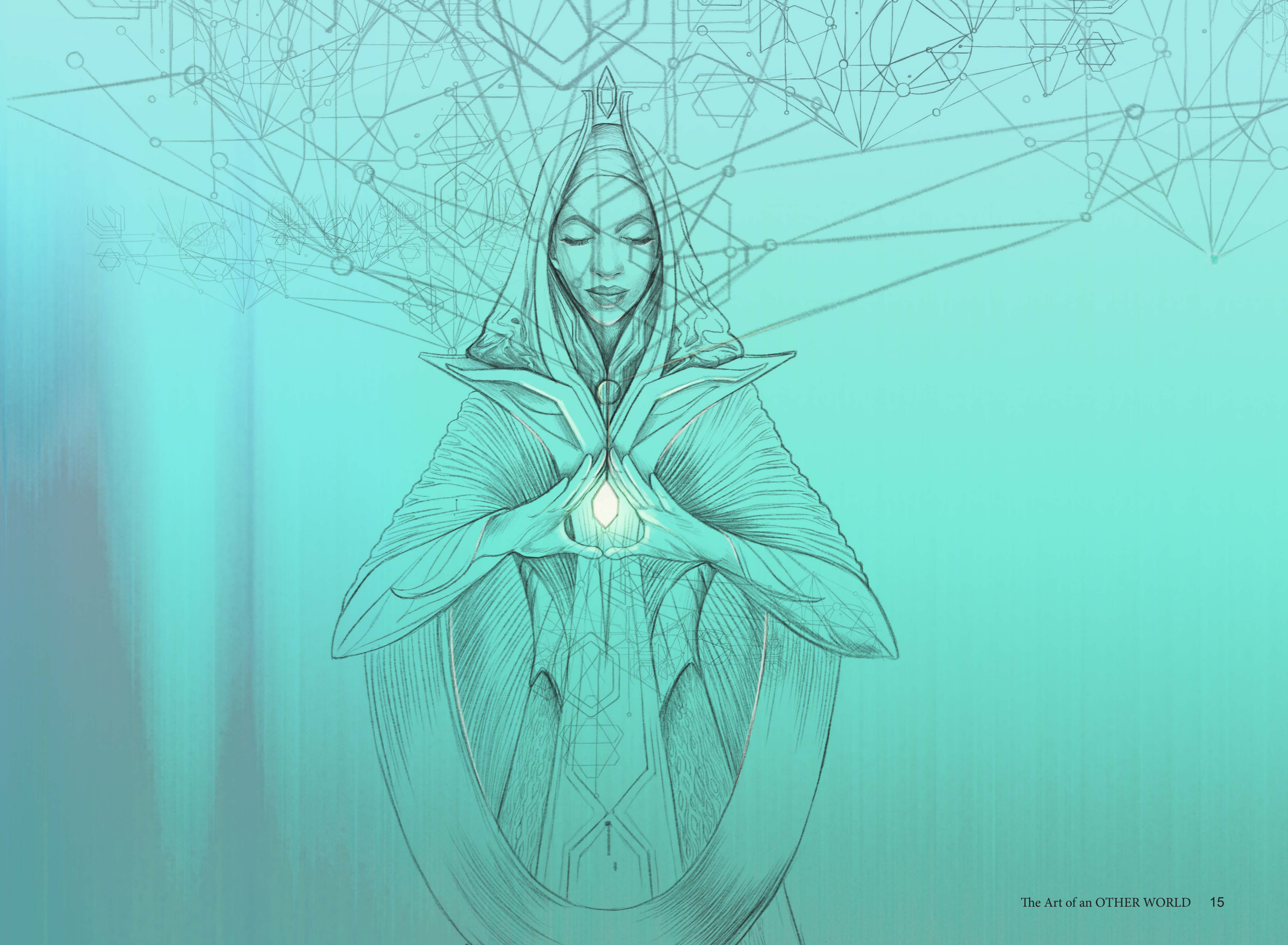
5.3
A SOLUTION THROUGH HOLISTIC VISUAL DEVELOPMENT

ONE

The first aim of this research is to provide a framework for **creating a distinctive and original look** for an imaginary MMO game, in effect to design a visual style for the original IP for *Other World*. While this visual style would be in service to the production itself, it needs a unique language that speaks to a broader design foundation or core design values. This can enable it to transcend a single medium and can create the luxury of an easier transition to a stage environment. This phase of research and design will pose the question – how can a visually consistent and original game aesthetic be created from scratch? The creation of a set of stylistic pillars (world rules) and a style guide for *Other World* will serve to articulate this design journey and attempt to answer this question.

TWO

Secondly, this research will investigate the **application of the style guide** to a key character and environment from the game. Resolving this design will involve building a proof-of-concept for the game to serve as the source material that will be adapted for a theatrical production. For the adaptation, understanding how the design needs to evolve to meet the needs of the theatrical medium will be critical. What are the design challenges, both practical and abstract, unique to the stage environment? This will be illustrated in the final product of this design journey - the presentation of the completed digital game character/ environment alongside its theatrical counterpart.



6.0

LITERATURE

CONTEXT, REFERENCES AND THEORY

Fig. 13.

6.0

6.10 DIGGING INTO THE CONTEXT

6.11 BROADWAY BOUND

A film is more likely to be produced and find success if it features a pre-existing IP, due to it being a known quantity with its own fanbase (Follows, 2018). Likewise a new musical making its Broadway debut in one of 41 professional theatres in the district is typically an adaptation from a beloved source material (Davenport, 2019). There is a marketing advantage for an adaptation, but from a design perspective a show with strong or well-known source material has the added benefit of a ground-level foundation for the visual design. It can be argued that all shows have an element of the adaptive. They all have an existing script, known as a 'book' in a theatrical context which is established before design begins. Beginning that design journey from a more advanced understanding is useful when considering the often limited visual exploration phase in an industry that is known for being a 'permanent floating crap game' (Peyser, 1994). A fully original show, with an IP that has no previous history in any medium is a rarity on a Broadway stage. The journey to a Broadway theatre is a highly competitive, expensive, slow and arduous affair. It is perhaps unsurprising that very few producers are willing to take the risk with untested and experimental material (Davenport, 2016). In the 30 years prior to 2008, only 18% of shows were original, and the average length of tenure in a Broadway theatre for these shows was only half that of adaptations. Davenport goes on to mention that 30% of the original shows were open for less than a month.

In 2016 Cirque du Soleil attempted an ambitious original musical, adding a narrative and songs to their normal skill-base of high-wire acrobatics and trapeze performances. A lack of design foundation in the 'desperately mediocre' (Cote, 2016), *Paramour* was very obvious. Described as an 'artistic muddle,' the entire production was 'consistently baffling' (Soloski, 2016) and despite numerous changes and additions to the script during the run, it ultimately closed much earlier than expected. While there is no specific metric for judging the impact a show's design might have on its tenure in a Broadway theatre, we do know that reviewers and critics 'are not only predictors [of success] but influencers as well' (Reddy, Swaminathan, & Motley, 1998). What a reviewer thinks of the overall visual impact is certainly relevant to a production's longevity.

Fig. 14. *Paramour* on Broadway, photograph by Joan Marcus, 2016

6.12 DIGITAL WORLDS IN A PHYSICAL SPACE

"Theatre shouldn't necessarily try to be a video game, and games shouldn't try to be theatre, but... there are things to learn, techniques to borrow."
(McMullan, 2014)

For the most part, the media of video games and live theatre have remained separate, removed from one another by the distinct barrier between the physical and non-physical. Emergent, user-friendly technologies such as VR and AR erode this barrier due to the way they blend digital imagery and physical movement, but their use in the theatre is still limited to supplementary experiences. While immersive and developmental theatre productions have often been inspired by video game narratives, few examples exist of digital landscapes on a Broadway stage, and those that attempt it have historically taken a very literal approach. In 2015 a stage musical adaptation of the video game series *Resident Evil, Biohazard: The Stage*, and its occasional over-reliance on its digital origins caused the production to 'stray too far from the confines of a stage play' (Smith, 2015), at times.
Eurogamer contributor George Osborn (2017) suggests that, 'The video game musical, or the video game based on the musical, is a thing that - for the most part - doesn't seem to exist'. One of the reasons for this, he explains, is "that few game developers actually know how to use mechanics to create an experience worthy of...theatre" (Osborn, 2017). In 2019's Broadway run of *Be More Chill* (2019) an attempt was made to create a digital entity on

stage, a computer in human form who was ''costumed like Keanu Reeves in his Matrix best' (Travers & Travers, 2019). In 2005, a small-scale video game off-Broadway musical called *Claudio Quest* opened, and had a West Coast run in 2017. The show is a parody of Mario Brothers and similar stylised 8-bit games, in the vein of the 2012 film *Wreck it Ralph*. It transformed 'its three-dimensional audience into the two-dimensional video game world' (Moe, 2017), combining puppets with human performers against a heavy technological backdrop. However Broadway is in general a relative video game virgin, and rarely glimpses depictions of these vivid and imaginative worlds on its boards.

Fig. 15. A performance of *Be More Chill,* photograph by Sara Krulwich.

Fig. 16. A performance of *Claudio Quest,* photograph by Jeremy Daniel.

6.13
WHEN TECHNOLOGY MEETS TRADITION

"So rather than being scared of technology and seeing it as a threat to real-world social interaction, which research increasingly suggests it is not, why don't we embrace these new technologies, and use them to develop new forms of theatre?" (Gardner, 2010)

One of the reasons that there is a lack of mainstream Broadway musicals that cross this media divide might be a technological differential. Broadway as an industry has always been notoriously reticent to embrace technological change, preferring a kind of 'aesthetic conservatism...rooted in...tradition' (Billington, 2010). Reviewer Mark Lawson even went so far as to say that the use of new media on stage was 'killing an art form' (Lawson, 2003). Greg Giesekam (2007) explained that there is a 'long-running tension' between spectacle and the idealised stripped-back approach to theatre, and while many feel that technology is only useful to the former, Lyn Gardner argues that media and digital technologies offer 'theatre-makers and audiences unprecedented new challenges and opportunities' (Gardner, 2010).

After trailing behind live concerts and arena shows, projected content is used frequently in Broadway musicals now, though for years it was viewed with mistrust (Mogol, 2017). Used poorly, it is considered distracting and out-of-place. Often the content needs to be pre-recorded, which is sometimes seen to detract from the 'liveness' and subtle unpredictability that is a theatrical experience. Recently both *Frozen* (2018) and *Anastasia* (2017) opened on Broadway with technology-heavy productions in their dependence on projected content, but this 'leaves nothing to the imagination' (Lee, 2019) and stimulating the imagination is the hallmark of theatrical expression.

This doesn't mean that theatre has nothing to gain in the use of digital technology, particularly when it 'enhances what's already there' (Mathews, 2017). The highly successful *Dear Evan Hansen* (2016) created the illusory effect of the digital 'cloud,' visualising the use of social media in a modern context with simple scrolling text that certainly does enhance both the narrative and the simple set. Projection Designer Finn Ross, who helped to create the magical visuals for *Harry Potter and the Cursed Child* (2016), explains that 'putting technology on display,' isn't the goal; projected content should exist in service to the 'total experience'(Ross, 2019 as cited by Lee). In other words, the technology itself is not the enemy of theatre. Used with consideration to the needs of the medium, it can add depth, credibility and immersion to an already strong theatrical piece.

Fig 17. *Dear Evan Hansen* on Broadway photograph courtesy of M. Murphy, D. Korins.

Fig 18. *Dear Evan Hansen* on Broadway photograph courtesy of M. Murphy, D. Korins.

6.14
VISUAL CONSISTENCY IN A CREATIVE CLOUD

There are a cluster of creative roles employed in the production of a Broadway-bound musical, however when compared to modern film-making, the design and visual creative responsibilities are weighted differently. In a cinematic context, a production designer is responsible for the overall look of a film, and typically artistic heads of departments will report to the production designer directly. In American Musical theatre, each discipline is more distinct, with an autonomous head of department (HOD) responsible for their creative territory. The director has ultimate say over each department, and is in charge of correlating and unifying the artistic vision across departments.

If a theatrical director possesses a strong understanding of the design and how to best represent the material visually, this can be effective. A good example is found in the critical involvement of Director Julie Taymor in the Broadway adaptation of *The Lion King* (1997). A theatrical visionary, Taymor had an unusal degree of creative oversight, including making masks and costumes herself. She collaborated well with other departments, and made '95%' of visual artistic choices (Stephens, 2015) achieving a vital consistency in the 'minimalist look' (Greaux,1998). The best-selling musical of all time, 'her 'deeply human' vision for *The Lion King* has seen it become a worldwide hit, crossing cultural boundaries' (Stephens, 2015). Where there is poor communication between departments, or a director who relies too much on the autonomous operation of these departments, an incoherent style can emerge. In his *New York Times* review for *The Little Mermaid*, (2007) Ben Brantley called the set 'distracted," the costumes, 'inconvenient,' as well as summing the whole production up as an 'unfocused spectacle' - that the creators had, rather than add a dimension to the 2d cartoon, stripped its depth away instead (Brantley, 2008). Despite *The Little Mermaid* having a strong source material, this lack of design cohesion was highlighted as a significant failing of the piece. The research suggests that it is ideal to have a design foundation, however this advantage is unlikely to matter if the vision for how it should be adapted is inconsistent and the responsible designers are unable to tap into a consistent source material.

Fig. 19. The Lion King on Broadway, photograph by Joan Marcus, 2016

6.20 LAYING THE STYLISTIC FOUNDATION

6.21 THE SOURCE CODE

How production designers and directors have created the look for their stylised game or animated film depends on a large variety of factors, and is typically driven by the needs of the narrative. When the game narrative is not a central driver for the design, other underlying theories can help to define the visual direction.

Foundational pillars are established in the game design process for their importance in creating 'coherence,' as well as in 'making informed design decisions' (Pears, 2017). They are established to define the core visual interest, uniqueness and values for the work, and are the starting point for the design journey of this project. Creating a fresh visual language using pillars - or world rules - was inspired by the foundation of video games themselves; computer programming. A programming language is driven by a source code, the central law governing how a computer behaves, and in much the same way, I wanted the rules of aesthetics to become the underlying directive for how the world manifested.

In *Coding Guidelines: Finding the Art in the Science* (2011), which discusses the coding language Python; 'the invention of an entire programming language built around a concrete set of ideals...where the focus lies on beauty, simplicity, readability, and reliability' (Green & Ledgard, 2011, p. 57-63). This set of principles, known as *The Zen of Python*, features design rules such as 'simple is better than complex' (Peters, 1999), yet 'complex is better than complicated.' The open-source nature of Python requires specific guidelines to unify its usage among a vast array of coders with different problems to solve, and adherence to these rules creates cohesion and consistency in the language. The same principle is true in game design, where establishing pillars allow for an easier development process because they help 'teammates understand the overall picture,' of the game (Pears, 2017).

6.22 MAKING CHOICES AND STICKING TO THEM

"The key to consistent style is making consistent choices."
(Walvoord, 2018, p. 2)

Effective world-building that culminates in a property with a unique visual style is demonstrated by the *DreamWorks* animated film *How to Train your Dragon* (2010), and its sequels. Making early choices around which design principles to use, and how they are combined and prioritised is what Lighting Designer Dave Walvoord believes enabled *DreamWorks* to create a look that served 'the story and the vision of how it needs to be told' (Walvoord 2018, p. 2). He believes, 'the key to consistent style is making consistent choices.' While the three films in this franchise all look different because of advances in technology across a decade of production, the design principles are consistent and unwavering. Exaggerated scale was one pillar that *DreamWorks* used when trying to evoke the child-like sense of wonder in their visuals. 'Seen

Fig. 20. Screenshot from *How to Train Your Dragon* (2010).

Fig. 21. Screenshot from *How to Train Your Dragon 2* (2014).

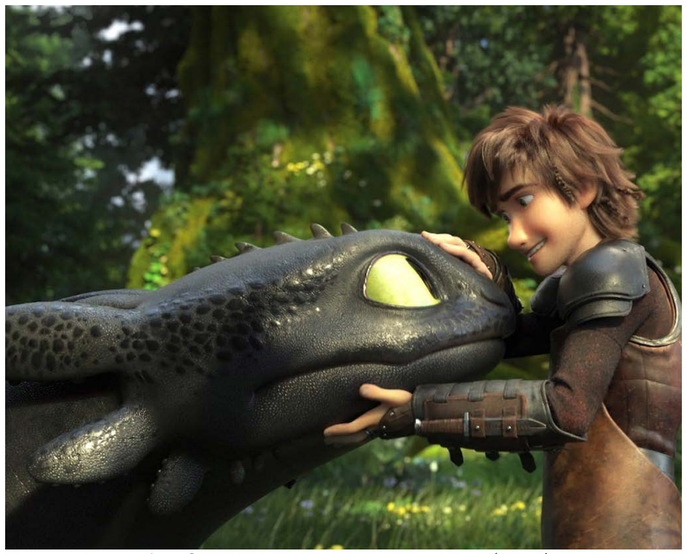


Fig. 22. Screenshot from *How to Train Your Dragon 3* (2019).

through the eyes of a child,' the world is 'at a different scale than it is for adults,' (p. 4) for example, 'a doorknob is at eye level'. In the case of *How to Train your Dragon*, this disproportionate scale difference is a key design feature.

In terms of world-building, the method of developing a holistic set of world rules can often be very organic and not overly process-driven. However for stop-motion film-makers *Laika*, everything must be physically constructed, and their work on *Paranorman* (2013) necessitated an almost 'God-like level of control' (Alger, 2012, p. 30), over the design as a whole. One way in which they exerted this control over the finished piece was in the area of colour. A limited palette was particularly important in giving it a 'consistent feel, an identifiable 'look' (p. 84). Making a limited series of colour selections early in the look-development process of *Paranorman*, and being specific and deliberate about where certain colours were used was an important part of creating this distinctive film.

Another great example of the use of definitive and consistent design decisions is found in the sandbox-style game, *No Man's Sky* (2016). Exploration is procedurally generated and unlimited, yet there is a cohesion within the visual style and takes inspiration from retro science fiction book covers and television. Artists Chris Foss, Moebius, John Harris and Ralph Mcquarrie made a huge impact on the visualisation of science fiction worlds. Project lead Sean Murray and Grant Duncan, artist for *No Man's Sky* made an analysis of the distinguishing features of these artists' work and developed several important visual markers which became core pillars of their game (Robinson, 2015). For example, the colour black is avoided entirely, allowing all dark areas to be tonal variants of the rich and vivid colours the world is known for. In order to stand out, and retain its own unique sense of aesthetic, *Other World* must take inspiration from these world-builders and the parameters and constraints of the design must be clearly defined.

Fig. 23. Environment in *No Man's Sky* (2016).

6.30 BUILDING UPWARDS: DESIGNING THE WORLD

6.31 A SPACE OF POSSIBILITY

"....game designers...design the structures and contexts in which play takes place, indirectly shaping the actions of the players. We call the space of future action implied by a game design the space of possibility." (Salen, Zimmerman, 2004, p. 79)

Katie Salen, author of *Rules of Play: Game Design Fundamentals* (2004), sets out various concepts that are important to consider when creating meaningful gaming experiences, and these ideas influenced my selection of visual aesthetics for this project. The concept of the 'Space of Possibility' (p. 79), is of particular use to the area of environment/scenic design for *Other World*. It is my goal to create spaces that feel convincingly representative of compelling game architecture that create anticipation for the 'possibilities' of the space.

The look of the world must encourage the idea that one exists in a space where they can affect changes and play can be meaningful. When designing game environments, even if they exist physically, there always needs to be a consideration for how structures, shapes, colours and textures could be coordinated to give the impression to the viewer/player that the environment is configured this way for a reason. John Sharp (*Works of Game: On the Aesthetics of Games and Art*, 2015) draws on the relationship between contemporary art and games, and uses the concept of affordances to begin thinking about the ways that both games and art are 'conceptualised, created, experienced and evaluated' (p. 4). Affordances are essentially the qualities something possesses to suggest its use, and what 'people expect' (Sharp, 2015) of an object or environment. Experiential affordances are described as the anticipation of how one might experience the object, as well as the experience the object inspires. How we see the object, and the context in which we see it are very important. For example, in a game realm, how an 'escape-path lighting' style for stepping stones, suggests to the viewer that they should jump onto the successive stones to go somewhere new. The experiential affordance is enhanced by the distant vision of a shiny artifact at the top of the pathway – creating anticipation of a reward. Understanding how to create experiential anticipation in the design aesthetic and representation of the world is pivotal for the environmental design for *Other World*.

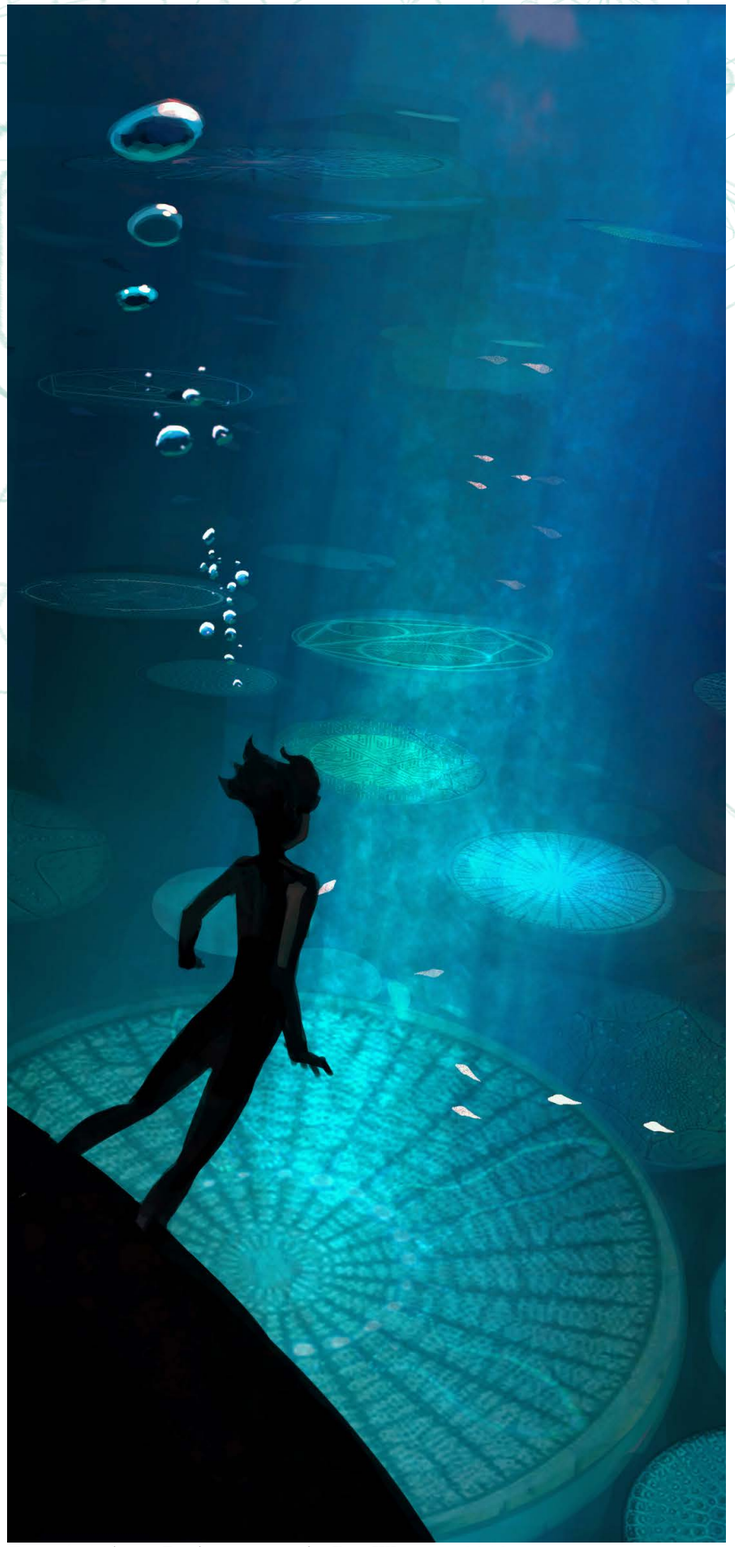


Fig. 24. Aphotic Realm concept, by Ben Wootten, 2019

6.32 TECHNO-HISTORICAL INFLUENCES

Historically, the aesthetics of video games were somewhat defined by the available computing power of the time. There was a need to avoid the complex and realistic procedurally generated landscapes and lighting we see today in games, because they were simply too difficult to produce. Andrew Hutchison, researcher for *Making the Water Move: Techno-Historic limits in the Game Aesthetics of Myst and Doom* (2008), suggests that 'Doom did not have cartoon style characters due to a lack of imagination or technical skill on the part of the designers at id Software' but was in fact beholden to 'the enormous technical limitations of the early 1990s' (Hutchison, 2008).
While game engines and graphics capabilities have improved exponentially over the intervening years, *Myst, Doom*, and many early large-scale video game worlds are associated with aesthetics, Hutchison explains, that demonstrated the requirement to reduce 'the quality of the image...to almost almost abstractly low level.'
Other World, in the theatrical narrative, is a game that is representative of a beloved IP that has existed over several iterations of technological progress, and this passage of time could be effectively demonstrated by elements of its aesthetic that were originally created from necessity, for example the simplification of shapes as they recede into the background. Sometimes game aesthetics are even less than a design decision based on limited options - they are a mistake. Author of *Works of Game: On the Aesthetics of Games and Art* (2015), John Sharp speaks specifically to the example of Julian Oliver's 'ioq3aPaint' manipulating a 'bug in...'*Quake 3*'...to create visual artifacts that blurred and almost smeared the 3Dd objects within the game engine, in the process creating near-abstract images' (p. 24). Glitches and operational faults in the game from a visual perspective can have an important impact on the game landscape, and I want to exploit the potential of this in *Other World*, adding to the texture and realism of the game and creating an aesthetic that feels like it could have been an impressive technical achievement of its time, but also a retrospective work of art.

Fig. 25. Screenshot from *Myst (*1993).

6.33 EMOTIONAL RESONANCE

Where there is less reliance or emphasis placed on a specific narrative journey in a game, visuals can play a part in communicating the depth and emotion that a player needs to feel to be immersed in the world. In the absence of narrative altogether, a strong understanding of how and why emotions can be effected through design choices is critical. Donald Norman, author of *Emotional Design : Why We Love (or Hate) Everyday Things* (2007), discusses the power in appealing to emotions in design. He identifies conditions which can create 'positive affect' in our emotional state, in particular; 'warm, comfortably lit places, bright highly saturated hues...symmetrical objects, rounded, smooth objects...' etc. For negative affect, "looming' objects...darkness...sharp objects, harsh, abrupt sounds...' (p. 29-30). The M.C. Escher- inspired visuals of *Monument Valley* (2014) epitomise the artistic resonance that video games can have today. The narrative is vague and metaphorical, with each level more focussed on enabling the player to feel the emotional strength of that particular stage of the journey, rather than crafting explicit linear story beats. This was intentional, as Ken Wong, Designer and Artist for the game, wanted to develop more of an 'emotional setting,' 'where your imagination is a strong force' (Diver, 2014). He believes you don't need exact knowledge of a backstory to understand the world and 'connect to it on a greater emotional level.' Each frame of *Monument Valley* is carefully constructed with a strong command of colour and shape, particularly to highlight focal points or to add complexity to an otherwise simple landscape. Coloured tonal gradients are used to great effect, enabling a simple background to become an atmosphere, which is something the environments in *Other World* can also benefit from.

Fig. 26. Screenshot from *Monument Valley* (2014).

6.40 POPULATING THE WORLD

6.41 CONNECTING THROUGH CHARACTER

"So to create a really good character, you have to control all of the visual clues that people use to judge each other and establish a clear, unified message to make players interested in - and ultimately like - your character."
(Gard, 2000)

While the design pillars still apply to any and all facets of the game look, it was important to understand the specific needs of character and costume design, because relating to a character and its performance is a large part of the enjoyment derived from modern games. Toby Gard, creator of Lara Croft, and author of *Building Character* (2000), discusses the 'powerful subconscious mechanisms,' that we use to judge the visual appearance of the character, and therefore form an assumption about its intent. We use our 'personal set of stereotypes,' to judge visual cues,

Fig. 27.

so it is important to exploit tropes as a shorthand to understanding our characters personality. Researchers in the field of evolutionary aesthetics have found that 'humans respond positively to any aesthetic stimuli experienced as being conducive to survival and reproduction' (Schwind et al., 2018, p. 46), meaning that child-like features can often be used to 'create affinity,' for a character. Larger head-to-body ratio, large eyes and less angularity are traits we judge to be aesthetically attractive, because they 'elicit protective instincts and feelings of care-taking' (p. 46).
When it comes to creating video game characters, in particular avoiding the uncanny valley is an important goal, particularly in light of technological progress in this industry, and stylisation is often cited as the key to achieving this. Gard argues that because games can never depict reality successfully, in order to have the 'greatest impact, we have to caricature' and 'amplify the aspects we want players to focus on.' Schwind, Wolf and Henze, authors of *Avoiding the Uncanny Valley in Virtual Character Design* (2018), affirm that overly realistic depictions of characters, particularly if they exhibit non-human features, can create this undesirable phenomenon. Using atypical features that might have benefits for the representation of the character; unnaturally large eyes, for example can have a negative impact unless there is reduced realism overall. Sometimes the goal, however, is to create an eerie, discomforting effect, used with success in the character of Golum, in Peter Jackson's *Lord of the Rings,* where the discomfort created in the atypical realism 'underlines the nature of the character' (p. 48).

The way a character moves, and how that movement shows an awareness of its environment, is an ironclad way to achieve realism in a video game character, according to Gard. A believable character must have 'some element about them that makes them especially suited to their world,' and this could manifest in the way they move and react to that word. This awareness can have more success in achieving realism and believeability than appearance.

Fig. 28.

6.42
THE IMPACT OF COSTUME

Another feature that enables game characters to feel more authentic to the player is how their dress or costume is handled. Thomas Makryniotis (*Fashion and Costume Design in Electronic Entertainment—Bridging the Gap between Character and Fashion Design*, 2018) draws attention to the fact that costume has historically been an under-considered element in video game design. Game companies have not usually hired designers who specialise in costume and fabrication, even though this would likely 'raise production values' of games, because they have an 'understanding of costume history, garment construction, and clothing psychology' (Makryniotis, 2017, p. 111). Emmy winner Lyn Paolo has experience in designing garments for video games, and designed the clothing for *Rockstar Games', Grand Theft Auto 5* (2013). Paraphrased by Makryniotis, Paolo notes that 'fit is not as important in games, and that things such as color and texture can be tweaked retrospectively' (p. 111), meaning that garments can function as a second-skin without regard to whether they restrict movement or bunch in unseemly ways. Being able to create the design without reference to what can be achieved physically is a freeing prospect. In a sense, this freedom enables a designer to take liberties with costume and amplify the abstract or key shape language. Taylor (*Living Digitally: Embodiment in Virtual Worlds. In R. Schroeder (Ed.), The Social Life of Avatars: Presence and Interaction in Shared Virtual Environments*, 2002) describes this as 'a cue to identity' (p. 40–62) and Gard affirms its ability to 'help symbolize the character's essence' (Gard, 2000). So while it is important to use costume to add a level of relatability to a game entity, it is also an opportunity to make a garment subject to aesthetic rules that may not be compatible with physical construction.

Fig. 29. Early concept sketches for the Vendor, by Ken Samonte, 2019.

6.43
THE PUPPET AS AN AESTHETIC ARCHETYPE

"Puppets automatically distance you...You can focus on the essence of character or emotion."
(Schwartz, Skipitares, Taymor, & Jenner, 1983, p. 115)

The theatrical discipline of puppetry can be the embodiment of abstraction, metaphor, expression and physicality, and the use of puppets in conveying the essence of an aesthetic is well documented. Julie Taymor speaks about the power of puppets to act as a gateway to theatricality itself, calling them, 'ideographs, emblems either of character, state of mind, or emotion...they become archetypes, ideas' (Schwartz et al. 1983, p. 115). Theatrical Puppet Designer, Bruce D. Schwartz has been writing scripts, making puppets, and performing since he was nine years old, and he mentions his desire to inhabit characters that he cannot become himself - limited to his human dimensions and abilities - and he meets 'the audience... in the abstract figure of the puppet' (p. 106). The human performer can supersede his or her own limitations, and become something 'other' than what is humanly possible and transmit 'precise visual meaning' (Posner, Orenstein, & Bell, 2014, p. 4). In representing the IP of *Other World* in a theatrical context, it becomes clear that this representative must transcend the physical confines of an actor on a stage, and become the embodiment of a digital creature.

Fig. 30.

6.50
THE THEORY OF THE THEATRE

"I want my imagination to be stimulated by what I see on stage..."

(Jones, 2004, p. 3)

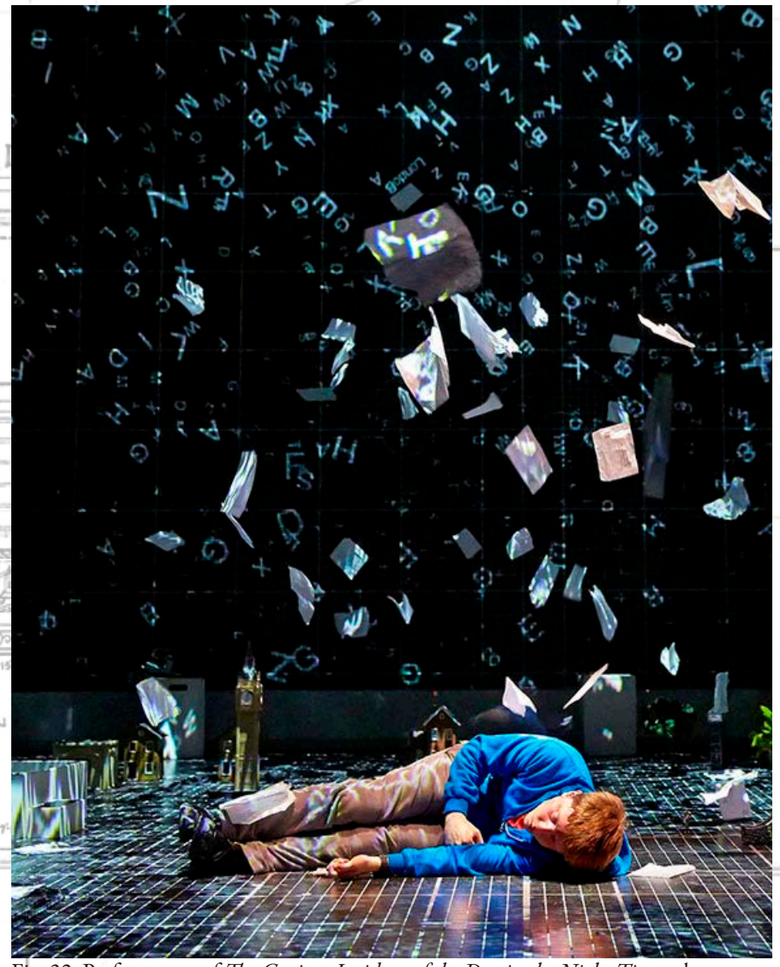


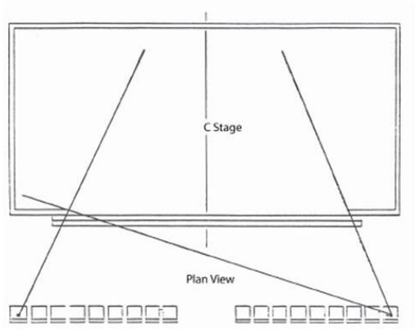
Fig. 32. Performance of *The Curious Incident of the Dog in the Night Time*, photo courtesy of Brinkhoff/Moegenburg.

Fig. 31. Loew's Kings Theatre - Blueprints for the Auditorium. Historic photographs and blueprints are from the archival collections of the Theatre Historical Society of America

6.51
THE EXPERIENCE OF THE CONTENT

In a theatre, the spectator experience is defined by the parameters of the physical environment in question, despite the audience being able to choose their own point of particular focus. In contrast, when playing a video game, the player is able to choose both a location and a point of view that will enable the ideal experience of playing the game, and therefore the best possible outcome. The theatrical design has to account for factors that are, for the most part, beyond the control of the viewer. In particular, the distance from the stage, and angle to the stage. Angles from which the audience are situated relative to the stage are better known as the sightlines, which need to be considered on both the horizontal and vertical axes. In order for all spectators to see something at all times, it must be situated inside a sweet spot of sightlines and the exact size and shape of this area is theatre-specific.

The distance from the stage has an impact on the scale of the key features of the design. The design needs to retain a readability from the farthest distance from which it might be viewed. Minute and intricate details will be unseen by a large portion of the audience, and any busyness in the texture, the shapes or the silhouette will be reduced to noise. The silhouette itself becomes a very important tool for distinguishing between a character or a landscape, because, where it has significant intent and strength, it is recognisable at a distance. Stage lighting has an impact on how content is experienced in a theatre, and its use must be calculated into a design. Colours, textural depth, make-up and fabric choices should all be made with reference to the lighting conditions that will be present, and, if specialty embedded lighting is to be used, it is important to understand how it will work alongside the key stage lights.



Sightlines of the stage.

Fig. 33.

6.52
METAMORPHOSIS AND METAPHOR:

"Because if theatre is going to survive, it has to do what it does best. What it does best is the non-literal...To compete, theatre must be more theatrical."
(Schwartz et al. 1983, p. 112)

Robert Edmund Jones (*The Dramatic Imagination: Reflections and Speculations on the Art of the Theatre*, 2004) calls for a non-literal approach to realising the scenic design for the theatre. He states, 'there is no...reason for a room on stage to be an actual room...Everything that is actual must undergo a strange metamorphosis...before it can become truth in the theatre' (p. 4). Theatrical design is inextricably intertwined with the abstract, and finding the abstract interpretation of a source material often requires stripping back external details to expose the underlying structure of the design. It is important to discover the intrinsic and defining features of the IP, and to realise them whilst retaining the freedom to create a piece of design that suits the stage environment. Julie Taymor frequently asked what the 'minimal architecture' (Greaux, 1998) was to create the impression of the source character or animal, while Michael Curry, Puppet Designer for *The Lion King*, mentioned that, 'the least information was always the best choice.'

When tasked with adapting a property, it is evidently possible to bore the audience with too much adherence to the known and expected source material. Julie Taymor describes her non-literal approach to adaptation, saying that people always make a mistake when they are producing, by

thinking that you have to give the audience what they want. Rather, it's important to take 'people to a place they didn't know they wanted to go...and, when they get there, it has to be a revelation' (Stephens, 2015). In its two-star review of *Frozen, the musical*, the *New York Post* said the industry had 'robbed *Frozen* of its heart and fun,' by, among many things, having, 'the plot follow...the film as closely as a stalker' (Oleksinski, 2008). The transfer of design from a game/film to a theatrical application is not altogether direct, and involves reinterpreting the material through an abstract lens.

Fig. 34. The set from *Hamilton*, photo courtesy of David Korins, 2016

Fig. 35. Performance of Hadestown, featuring Persephone, whose character is used as an extended metaphor for the coming of Spring. Photograph by M. Murphy, 2019.

"Within the context of metaphor many explorations of what theatre does can be found. The constant conflict and dissonance caused by at once being metaphoric and mimetic enables theatre to profit from this shape-shifting, to at once be real and also spectacular." (White, 2009, p. 163)

The metaphor, or conceit, is often central to a theatrical experience. It is a complex device used by playwrights to draw a comparison between two seemingly dissimilar things. Arthur Miller's *The Crucible* (1953), for example creates an enlightened view of McCarthy-era anti-communist politics in the light of the Salem Witch Trials. An extended and holistic form of symbolism, the use of the metaphor can add depth and communicate an agenda without blunt exposition. The metaphor does not have to be a narrative device and we very often find a visual form of metaphor in the design of a production. A potent visual metaphor is found in the set of Broadway darling, *Hamilton* (2015). Set Designer David Korins created a set that is essentially 'wooden scaffolding wrapped around these double brick walls' (Catlin, 2018), which was designed to tell 'the story of the people who built the scaffolding from which the foundation of our country is built.' The unfinished nature of the naked wooden beams is offset by the permanent, foundational quality of the brickwork. In the case of *Other World,* the audience needs to be convinced that what they are seeing on stage is a digital world; an elaborate combination of zeros and ones. This can be achieved through the use of an extended visual metaphor. Visual attributes associated with digital imagery such as pixelation, glitching or wireframes can be created in a physical way to assist in creating a parallel between two different dimensions.

6.60 PRESENTING THE WORLD

6.61 THE SPECTATOR BECOMES THE PLAYER

'What do theatrical plays and games have in common, for their producers and their spectators? And what can we learn about gaming and about theater by uncovering the links between these media forms?' (Bloom, 2018, p. 2)

Bloom (*Gaming the Stage: Playable Media and the Rise of English Commercial Theater*, 2018) notes that the recent developments in embodied gaming – and indeed full-body platforms as well as fully immersive platforms – have begun to blur the lines between performance and individual play. She draws historical connections between how theatrical plays were once experienced by the audience in the 16th and 17th centuries, and in fact, the name 'Ludus,' in Latin, referred to both a game and a play. Spectators were intertwined in the experience of the play, and felt involved in the narrative – though sometimes this was achieved solely by betting on the outcome – and the proverbial fourth-wall was commonly abandoned (Bloom, 2018, p. 1). While *Other World* is a musical spectacular and has a traditional linear narrative that doesn't call for audience participation, it is worth understanding the links between performing and gaming, and how the audience might feel like a player rather than merely a spectator. It is this participatory nature that opens the door to an inclusive gaming environment, and therefore I have decided to present the designs for *Other World*, in an immersive VR environment, in which the 'player' can control from which angle and how close they want to view the scene. The choice in this instance does not alter the design itself, but alters the viewer's perception of that environment and a moment of real-time shared space is created.

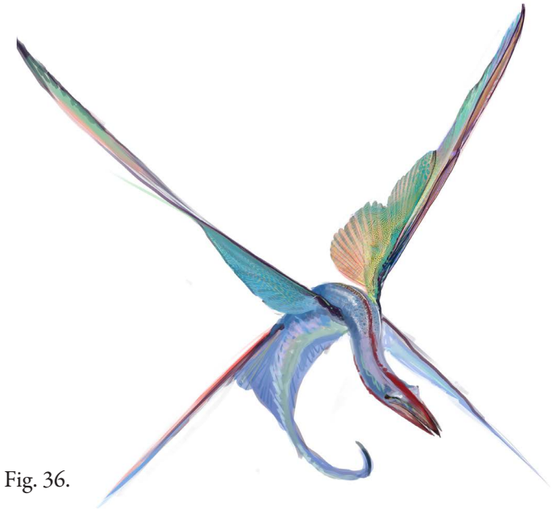


Fig. 36.

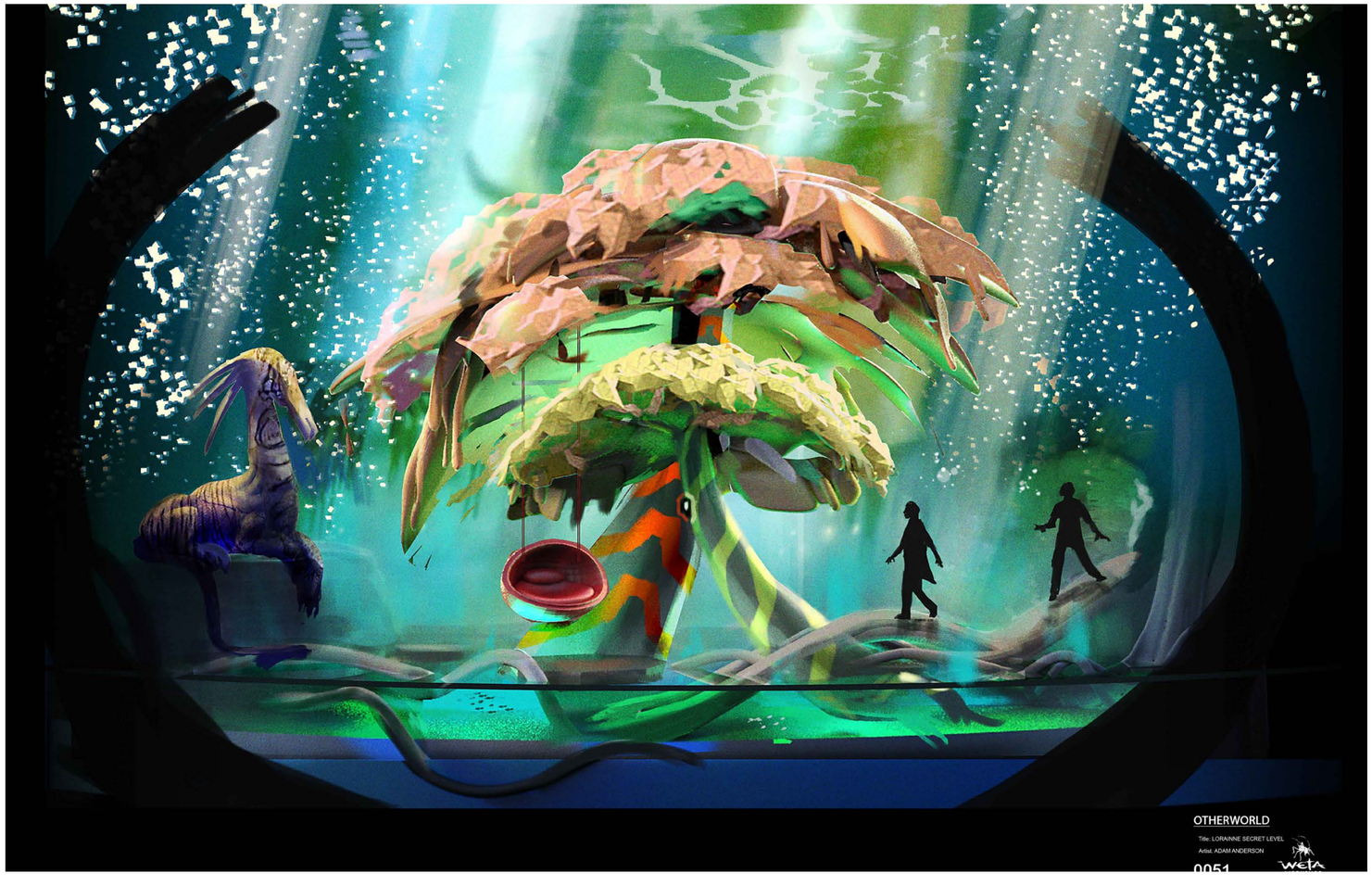


Fig. 37.

7.0

PROCESS & PRACTICE

Fig. 38.

7.0

7.10 CASE STUDIES

Due to the lack of formal published research in many relevant areas, the need for case studies has been a consistent feature for the development of this project. Creating case studies was important when choosing artistic influences for *Other World*, as it allows an exploration of the impact and importance of the examples, and their potential value to the project. In the theatrical medium, the experience of the piece is vital to creating a useful case study. Therefore a significant amount of empirical research was gathered by going to shows as well as noting how they were received by audiences and critics, and documenting their design details.

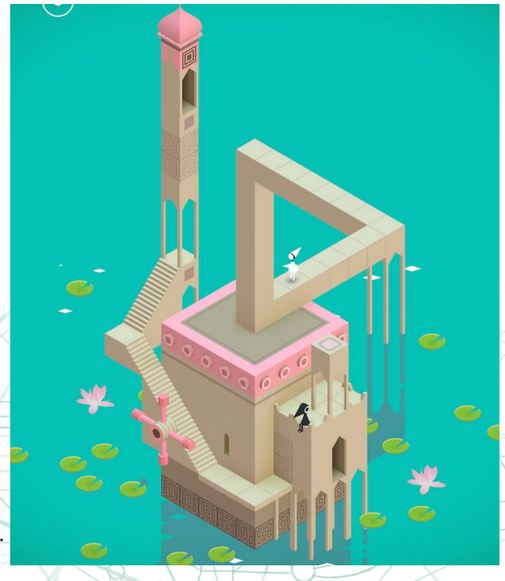


Fig. 39.

7.11 FORMAL ANALYSIS

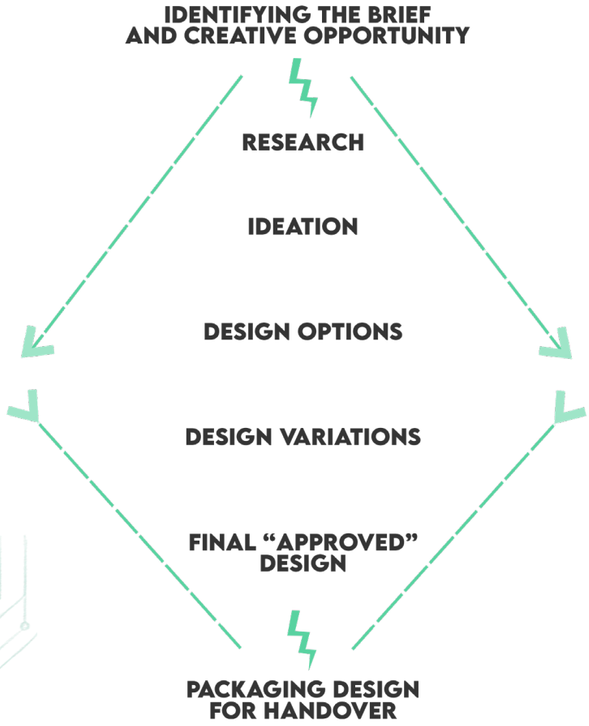
Several key pieces of art have served to inspire and generate ideas for this project, and early on an objective breakdown of their artistic components was created. This formal analysis becomes foundational for the design pillars that were established, and provided consistent grounding for any artistic expression that happened within these boundaries. In the case of this project, the formal analysis was focussed around the following observations in particular :

Palette – the use/absence/control of colour.
Form – the use of shape language, the relationship between shapes/bodies.
Lighting – the use of contrast, tone, shadow or lighting effects.
Composition – the positioning of elements and the organisation of space (both 2d and 3d)
Surface/texture – the outward layer or 'skin' of the elements.

While there are many observations that can be made under this method, those mentioned above are useful because none of these need be lost in a transition to a theatrical medium, such as 'line' for example. Knowing that the IP needed to become a theatrical show in its later form, there was a focus on areas thatcould be retained during the adaptation.

7.12 THE WETA METHOD

Weta Workshop have been creating new worlds for film, television, games and location-based experiences for almost 30 years. Their design department have developed a consistent approach for building worlds and for ensuring that an iterative design work flow produces original and innovative visuals.



7.13 REFLECTION-IN-ACTION

During the course of the design process for *Other World,* and whilst employing the Weta Method where appropriate, there was a reliance on a 'reflection-in-action' practioner style. This has been characterised as a continuous reflection on what one is creating, and in the process, 'evolving their way of doing it' (Cross, 1982). When creating, there were times to apply research-based theories and techniques, however the design process for this project more often made use of my personal experience as a designer, and the use of tacit recognitions, critical judgment and the learned skills of that experience. Reflecting on these during the design phases was important to gaining a more complete view of the work, and improving it where possible.

7.14 EMBODIED RESEARCH

While presenting the world in VR was considered in the first phases of the project, using VR as an embodied research method was a technique used in the design practice. In VR the body becomes an essential tool for the gaining of visual information and understanding of the work. Sculpting in a virtual plane requires a series of physical gestures to create 3-dimensional shapes and edit these shapes. Gravity Sketch was used as part of the character design process to explore shapes and silhouettes, as well as being understand the scale of the character relative to a player or audience member.

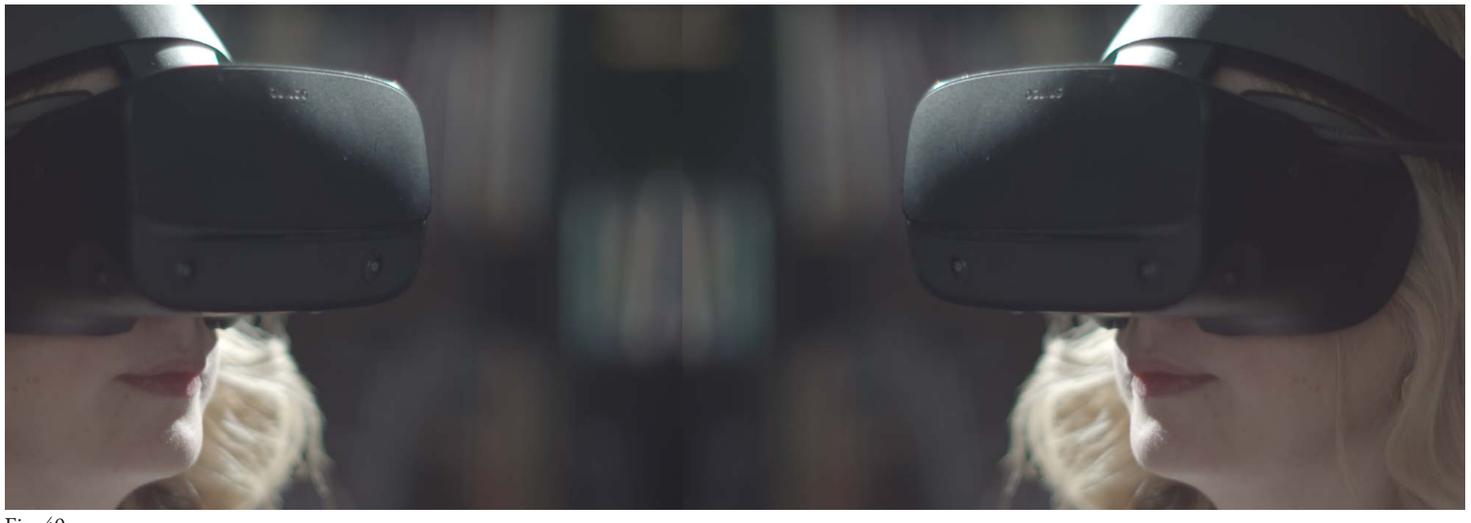
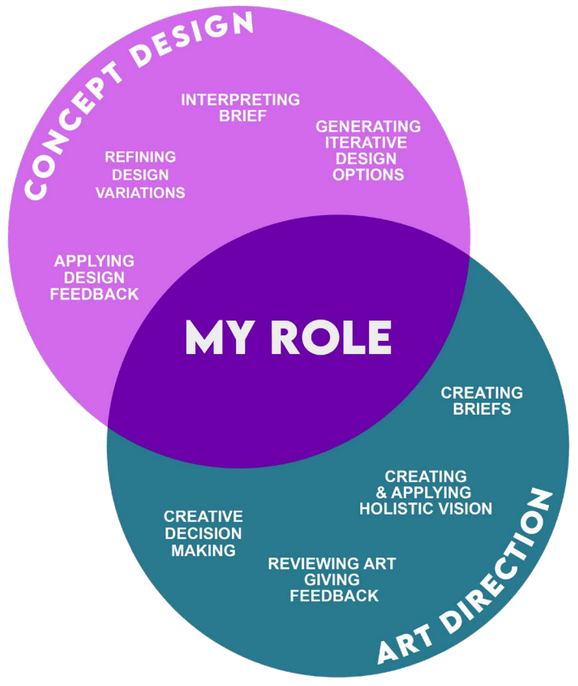


Fig. 40.

7.15 MY ROLE

My role on *Other World* has consistently been difficult to define. As an Art Director, I have at times directed a team of artists, as well as being an artist on a significant number of briefs. In addition to the designs I created myself, I was a contributor to most of the art of *Other World*, either by creating a compositional study that was completed by another artist, or by adding additional details or finishing touches to someone else's otherwise successful design.



8.0

METHOD

PHASE 1

CREATIVE OPPORTUNITY

1 2 3 4 5

PROJECT BEGINS...

DELIVERABLE #1
STYLISTIC PILLARS

PHASE 2

6 7 8 9 10

DELIVERABLE #2
STYLE GUIDE

PHASE 3

11 12 13 14 15 16

DELIVERABLE #3

CORYPHEE GAME DESIGN

PHASE 4

17 18 19 20 21

DELIVERABLE #4
FINAL PROOF OF CONCEPT FOR GAME AND THEATRE

TASK KEY

- BREAKING DOWN THE BRIEF
- CASE STUDIES / INSPIRATION
- VISUAL RESEARCH
- DESIGN EXPLORATION
- ADAPTIVE DESIGN / DESIGN FOR BUILD
- MILESTONES

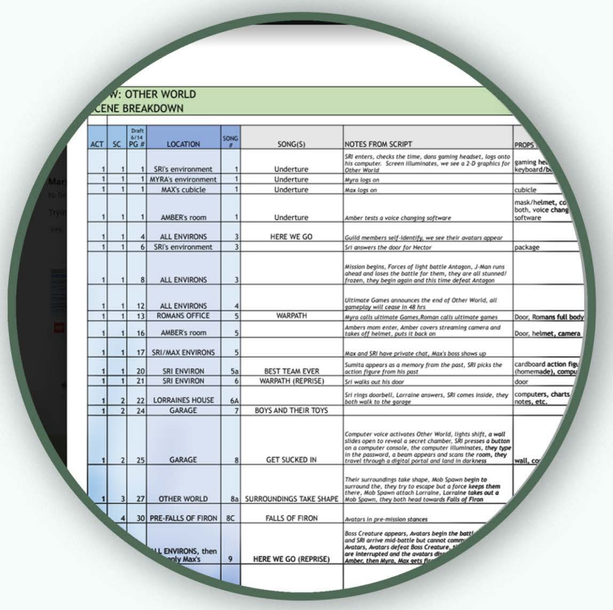
PHASE 1

1

2

FULL SCRIPT BREAKDOWN

Before any design can begin, a complete understanding of the requirements of the script is needed. Even though the first part of this design journey is to create a game, the book for the theatrical show of *Other World* is the basis for understanding what the game needs to bring to life. A full scene by scene breakdown of the narrative was created with the ultimate view to identifying all the environments, characters, costumes, props, and mechanics that the game *Other World* needs to have to fulfil the requirements of the story. These script-specific requirements will form the design briefs for which an original and specific aesthetic must be created.



W: OTHER WORLD
CENE BREAKDOWN

ACT	SC	Draft 6/14 PG #	LOCATION	SONG #	SONG(S)	NOTES FROM SCRIPT	PROPS
1	1	1	SRI's environment	1	Underture	SRI enters, checks the time, dons gaming headset, logs onto his computer. Screen illuminates, we see a 2-D graphics for Other World	gaming he keyboard/
1	1	1	MYRA's environment	1	Underture	Myra logs on	
1	1	1	MAX's cubicle	1	Underture	Max logs on	cubicle
1	1	1	AMBER's room	1	Underture	Amber tests a voice changing software	mask/helmet, co both, voice chang software
1	1	4	ALL ENVIRONS	3	HERE WE GO	Guild members self-identify, we see their avatars appear.	
1	1	6	SRI's environment	3		Sri answers the door for Hector	package
1	1	8	ALL ENVIRONS	3		Mission begins, Forces of light battle Antagon, J-Man runs ahead and loses the battle for them, they are all stunned/ frozen, they begin again and this time defeat Antagon	
1	1	12	ALL ENVIRONS	4		Ultimate Games announces the end of Other World, all gameplay will cease in 48 hrs	
1	1	13	ROMANS OFFICE	5	WARPATH	Myra calls ultimate Games.Roman calls ultimate games	Door, Romans full body
1	1	16	AMBER's room	5		Ambers mom enter, Amber covers streaming camera and takes off helmet, puts it back on	Door, helmet, camera
1	1	17	SRI/MAX ENVIRONS	5		Max and SRI have private chat, Max's boss shows up	
1	1	20	SRI ENVIRON	5a	BEST TEAM EVER	Sumita appears as a memory from the past, SRI picks the action figure from his past	cardboard action figu (homemade), compu
1	1	21	SRI ENVIRON	6	WARPATH (REPRISE)	Sri walks out his door	door
1	2	22	LORRAINES HOUSE	6A		Sri rings doorbell, Lorraine answers, SRI comes inside, they both walk to the garage	computers, charts notes, etc.
1	2	24	GARAGE	7	BOYS AND THEIR TOYS		
1	2	25	GARAGE	8	GET SUCKED IN	Computer voice activates Other World, lights shift, a wall slides open to reveal a secret chamber, SRI presses a button on a computer console, the computer illuminates, they type in the password, a beam appears and scans the room, they travel through a digital portal and land in darkness	wall, co
1	3	27	OTHER WORLD	8a	SURROUNDINGS TAKE SHAPE	Their surroundings take shape, Mob Spawn begin to surround the, they try to escape but a force keeps them there, Mob Spawn attach Lorraine, Lorraine takes out a Mob Spawn, they both head towards Falls of Firon	
	4	30	PRE-FALLS OF FIRON	8C	FALLS OF FIRON	Avatars in pre-mission stances	
			LL ENVIRONS, then mply Max's	9	HERE WE GO (REPRISE)	Boss Creature appears, Avatars begin the battle and SRI arrive mid-battle but cannot compete. Avatars, Avatars defeat Boss Creature, are interrupted and the avatars disa Amber, then Myra, Max sets fr	

Fig. 42.

CASE STUDY EXAMPLE: PARANORMAN (2013)

Fig. 41.

Paranorman is a great example of a strongly distinctive piece of visual design. The creators explored a large variety of options for the type of stylisation they wanted before a single artist, Heidi Smith was able to create character designs that both the director and writers felt perfectly captured the essence and emotional core of the world (Alger, 2012). Smith's designs were used as a foundation for the style of the piece as a whole - informing all creative decisions that followed, and defining a strong and unique look.

Fig. 43

CREATING BRIEFS

Using the relevant information from the breakdown, individual briefs for environments, characters, props and game mechanics can be devised. The story implies a much bigger world than it is possible to see within the context of the show, so while it was important to know what needed to be designed, it was also necessary to look beyond that so that the foundation didn't feel too contained. The first brief that needed to be executed was establishing the foundation itself.

3

ANALYSIS OF KEY ARTISTIC REFERENCES

- M.C. ESCHER
- MONUMENT VALLEY
- NO MAN'S SKY
- GRIS
- KUBO AND THE TWO STRINGS

Fig. 44

While visual illusions didn't have a significant role to play in the aesthetics of *Other World*, I was interested in the various ways that **Escher** uses repetition to create a visual journey. A monochromatic or very limited palette is also key to enhancing the effect of the repetition. I wanted to explore the idea of using repetition as a form of construction in *Other World*, reminiscent of the building blocks of computer generated visuals - pixels - or the very code that underpins all digital creation.

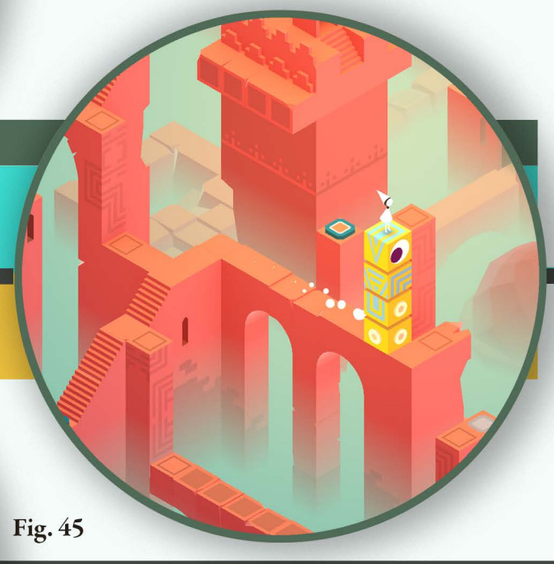


Fig. 45

Monument Valley is an example of an existing game being directly inspired by M.C. Escher's work in visual illusions through forced perspective. It is a puzzle game with a very limited and vague narrative, but it creates a significant emotional resonance through carefully crafted use of colour, sound, shape language and visual interest. Tonal gradients are used to great effect as nothing is outlined or constructed out of anything other than colours and tones.

In the game ***No Man's Sky,*** the visuals need to reinforce the players desire to explore - to 'fill' the landscape 'with questions' (Robinson, 2015). Unusual analogous colour combinations, landscapes derived from both familiar and unfamiliar geography, and bold use of simplistic forms are elements that I was interested in.

Fig. 46

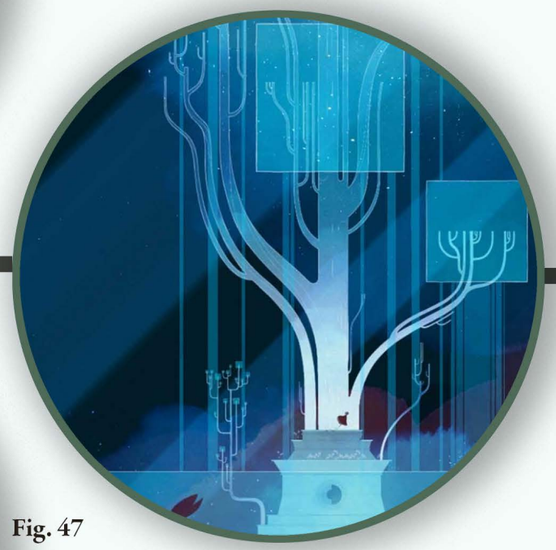


Fig. 47

Gris (2018) is a recently released indie game, with highly stylised visuals. There is a very controlled palette used here, with frequent use of only analogous colour combinations, as well as bright complimentary accents. The lighting is a design element in itself, with bold shaft lighting used to reveal accent colours and focal points. A key point of interest is found in the use of bold simple shapes, often as a dominant feature of the composition.

Fig. 48

Kubo and the Two Strings (2016) is a highly stylised stop-motion animated film by Laika, and the characters and creatures have some visual qualities that I wanted to emulate for *Other World*. Faces have a high degree of mask-like stylisation; elongated noses, wide mouths and large eyes. The characters as a whole are very symmetrical and are often segmented with repeating forms.

4

FRAMEWORK FOR THE STYLISTIC PILLARS

5

DESIGNING THE RULES

PALETTE

The palette for *Other World* is **controlled.** Colours are not true to life or naturalistic. The range of colours is **analogous,** with specific complementary accents. Key features are represented in **tertiary** hues, with occasional secondary hues. Black and white also don't feature in *Other World.*

SHAPE/FORM

Simple geometric shapes form the basis for the geography in *Other World.* In most cases, these shapes are **repeated** at multiple scales or amounts to create interesting faceted forms. Any complexity in these shapes fade as they recede into the background.

TEXTURE/SURFACE

While the silhouettes and overall forms of *Other World* are very simple, the surface textures may be highly **complex.** Featuring a digital filter, textures and patterns are derived from underlying **natural fractals,** and are applied to surfaces in often repetitive fashion - like a **wallpaper**.

LIGHTING

The lighting in *Other World* is always **ethereal** and used to create a sense of fantasy. It is not naturalistic or broad, and there is often **minimal** ambient light. Directional shaft lighting is used, and smaller spot or accent lighting illuminates important details in the game, such as portals.

COMPOSITION

Large **symmetrical** shapes form important focal points in the environments. The geographical architecture formed by **repeating shapes** also has a degree of symmetry.

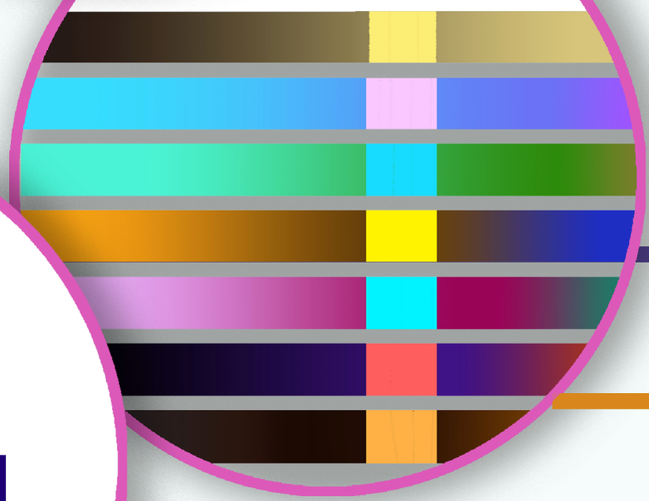
FORM/SHAPE

TONAL RANGE

There is a high range of saturation and chroma in *Other World,* and pale pastels may sit comfortably alongside highly saturated colours. Both tonal and hue gradients feature consistently - all skies and backgrounds feature a gradient shift.

PALETTE

ACCENT COLOURS



ANALOGOUS COLOUR SERIES

Analogous colours sit alongside one another in the colour wheel, and together create a series that feels both sympathetic and playful. Analogous colours encourage the mixing of primary, secondary and tertiary colours, which feels modern and dynamic.

SHAPE LANGUAGE ALPHABET

Different ranges of colours represent the classes of beings in *Other World*, with cooler tones and darker shades generally representing the Army of Korberac, while warmer tones and paler shades generally represent the Forces of Light. The shapes played into this as well, with rounded, fuller shapes contrasting with angular, acute shapes.

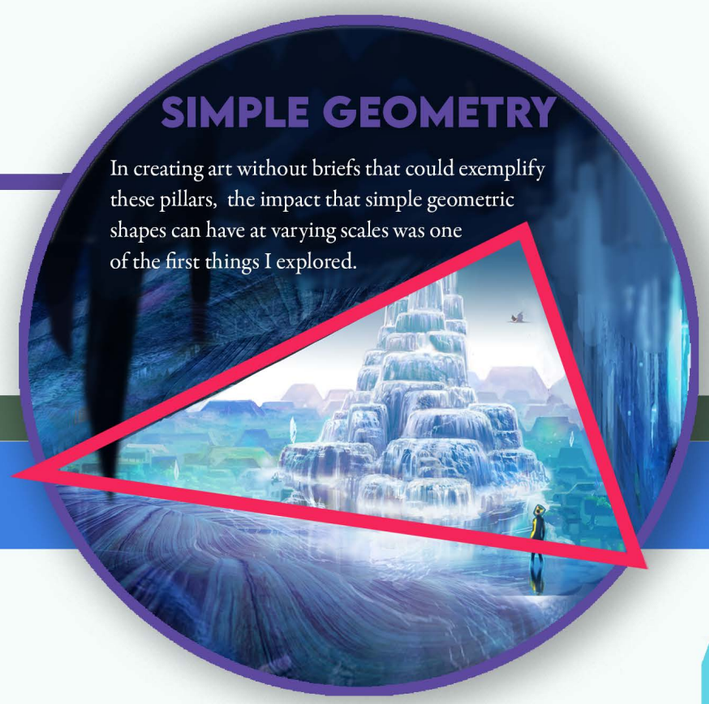
FORCES OF LIGHT

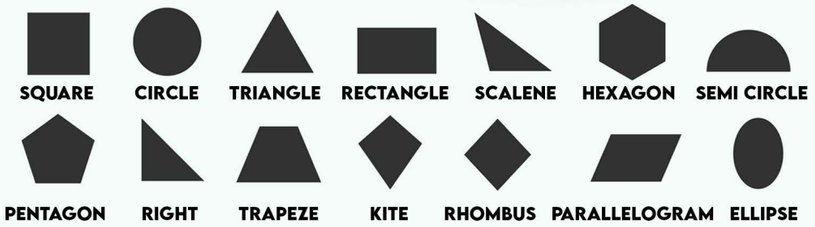
PLAYER CHARACTERS

KORBERAC

SIMPLE GEOMETRY

In creating art without briefs that could exemplify these pillars, the impact that simple geometric shapes can have at varying scales was one of the first things I explored.





COMPOSITION

When visiting this kind of game world, a player would not be locked into one point of view or perspective, however, I liked the idea that landscapes might always be punctuated by dominant simple shapes. While there could be an unnatural degree of symmetry present, nothing was ever *only* symmetrical, and it felt more calming and welcoming to offset that symmetry with some natural disorder.

LIGHTING

While there needs to be a broad range of lighting scenarios in a game with diverse environments, I explored the idea of consistency in the 'directional' and strong quality that accent lighting could add. Shaft lighting became a good way to introduce a complimentary accent colour into the analogous colour series. Always having a sense of soft illumination, the 'twilight' tonal gradient at the horizon, enhanced a feeling of fantasy and beauty.

SURFACE / TEXTURE

While outer edges of shapes were defined by simple geometry, visual interest could still be present in the form of textures and patterns within those confined siloutettes. Using repeating textures, as wallpaper, or dense natural fractals, or abstract versions of the actual materiality felt like a good way to create a world that was techno-historically limited. As it takes considerably more render power to manifest a complex form than it does a complex texture, I decided to weight any complexity in the visuals towards the surfaces, not the structures.

Fig. 49

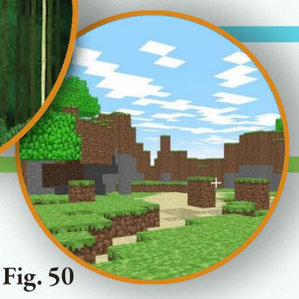


Fig. 50

PHASE 2

6

BRIEFING THE ARTISTS

A key reason to create stylistic pillars is to provide a platform for other artists to utilise. If all artists are using the same source to create their images, the chance that their pieces feel of the same world is much higher. Given that different artists possess their own individual styles, unifying their output is essential. Phase two began with a thorough briefing of all artists who might need to work on the project, and involved a simple visual communication of the pillars using found examples.

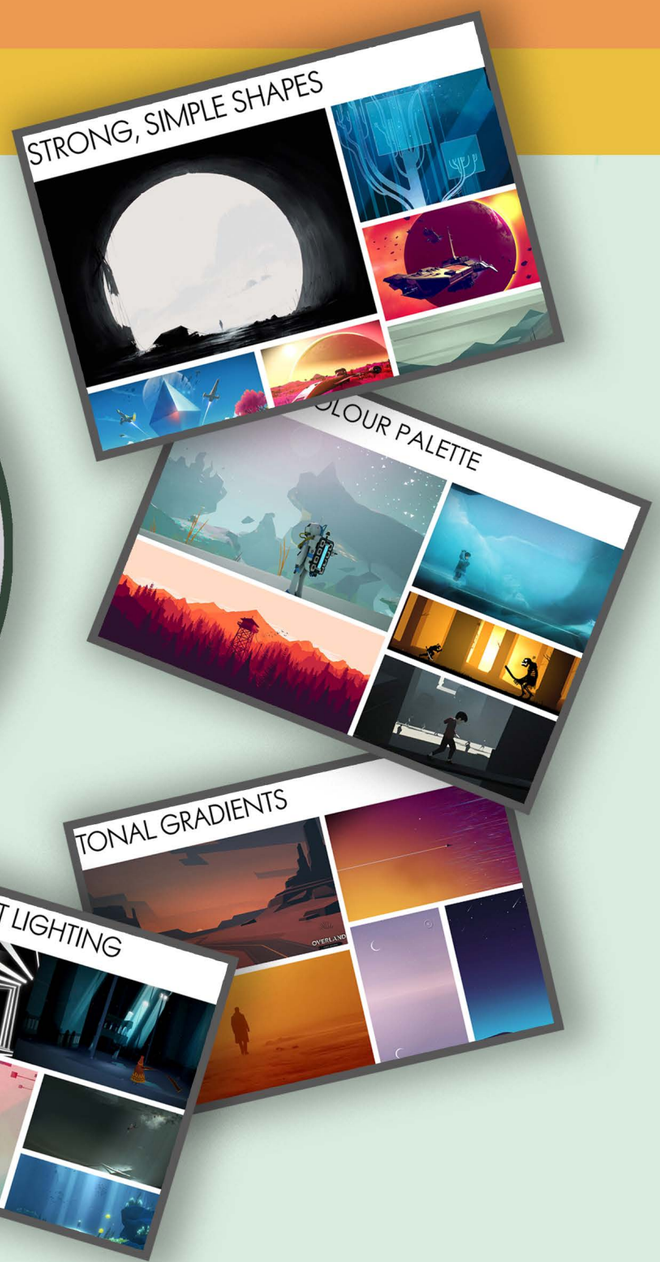


Fig. 51.

CASE STUDY EXAMPLE: JOURNEY (2012)

Journey is an indie adventure game without a guided narrative but with an emphasis on emotional resonance through evocative visuals and music. A key feature of the aesthetic is the horizon, and how it is designed to draw the player towards it. A controlled colour palette, and simple, unadorned forms craft a meditative, and clear sense of space. This game provided an interesting case study for the establishment of a distinctive and even iconic visual property that is quite stripped back and uncluttered.

Fig. 52.

7

KEY ENVIRONMENT DESIGN

Environment design began with a simple thumbnail composition.

The concept artist was given the rough environment that I created in order to do a finished illustration, featuring textural and content details not found in the original sketch.

8

KEY CHARACTER DESIGN

Three groups of characters exist in *Other World*, and while all would need to adhere to the stylistic pillars established in Phase 1, they also needed additional guidelines to be differentiated by type. I assigned a different set of shape language and colours to each type, and began the development of the player characters (avatars) initially, as the range of options was most significant.

Fig. 53.

Fig. 55.

Ken Samonte created a large range of individual character studies for each of the player characters, and he also experienced with them as a group, to confirm that their silhouettes fitted well together.

Fig. 56.

Once there was an established direction for each character, colour studies were created. Design was also refined in this stage, and textures/patterns were added. Each character was finalised in an illustration which was incorporated with one of the previously designed environments, to understand its effect in context.

Fig. 54.

Character designs began with loose thumbnail sketches in black and white, in order to generate a large number of options.

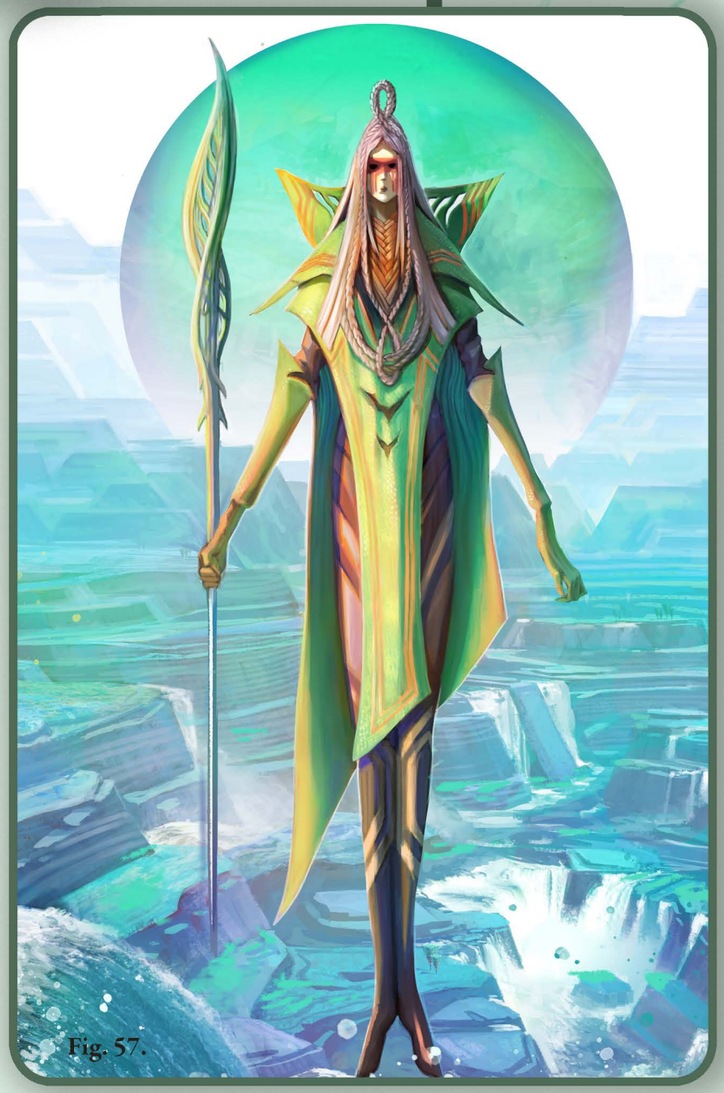
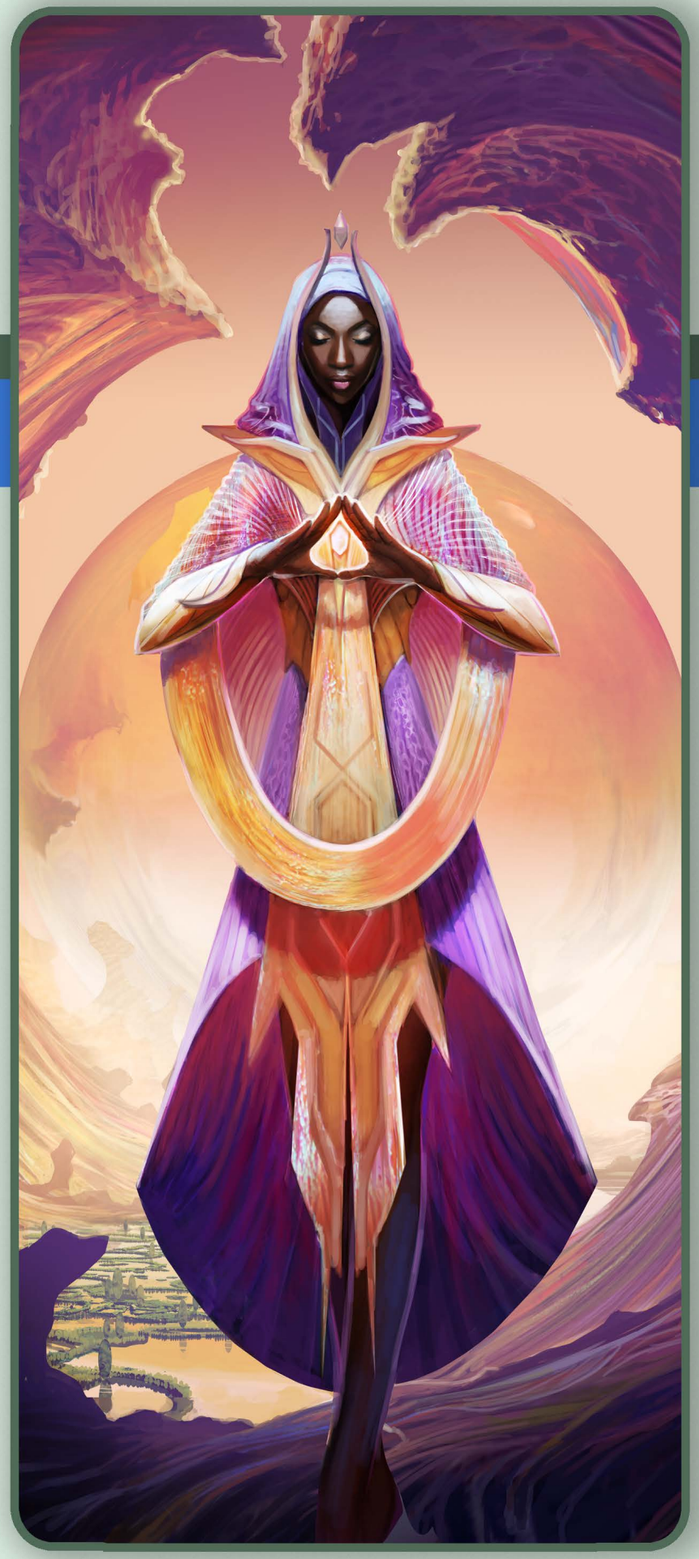


Fig. 57.



The design language and example of a ‘Forces of Light’ NPC character, Temula

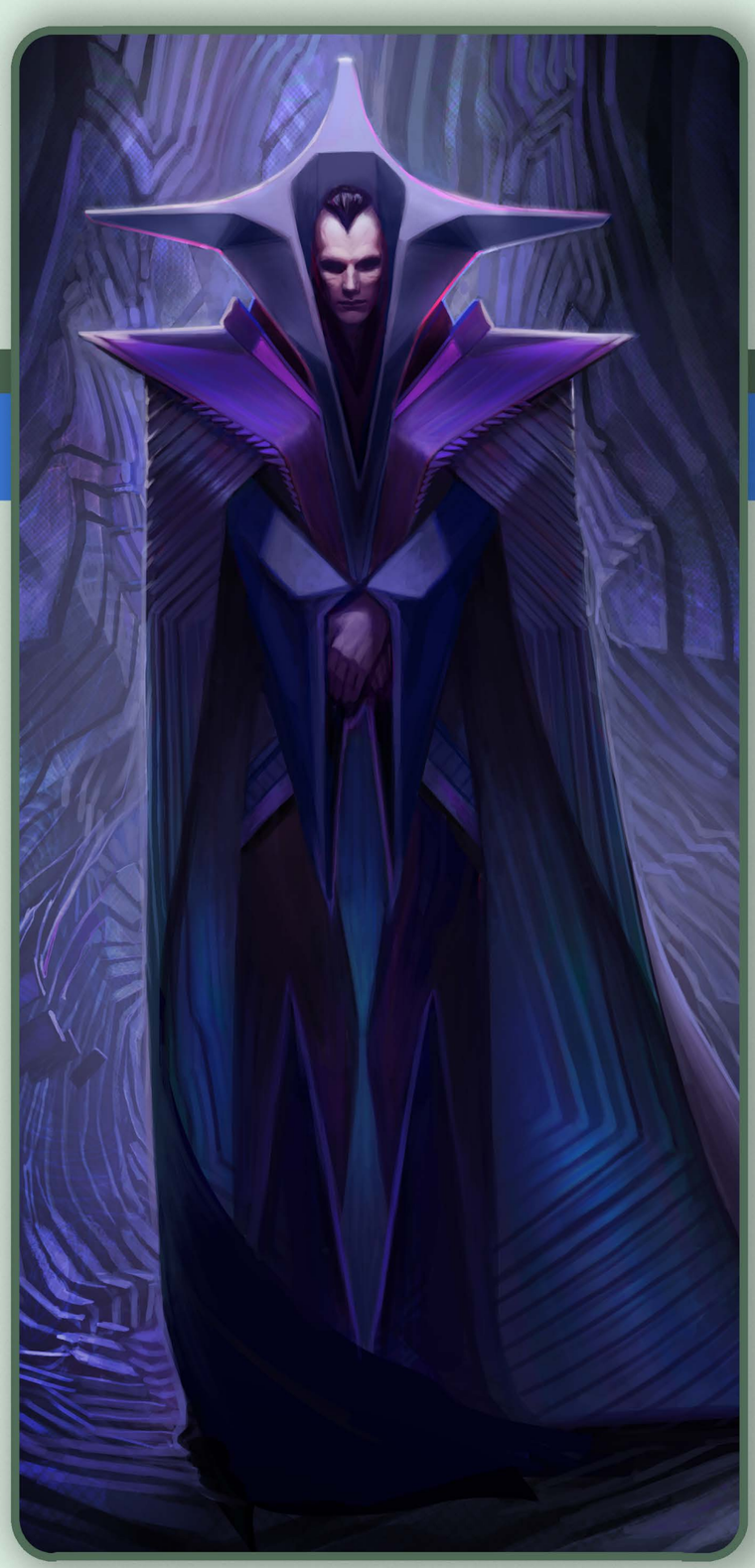


Fig. 58.

The design language and example of an ‘Army of Korberac’ NPC character, Antagon.

9

UI AND MAP DESIGN

While not a functioning game, I wanted to give the impression that *Other World* was more than just a visually distinctive world - that it was a game that required an interface to engage with, and was wrapped in a believeable presentation package with imagery that made sense for the lore and purpose of the game.

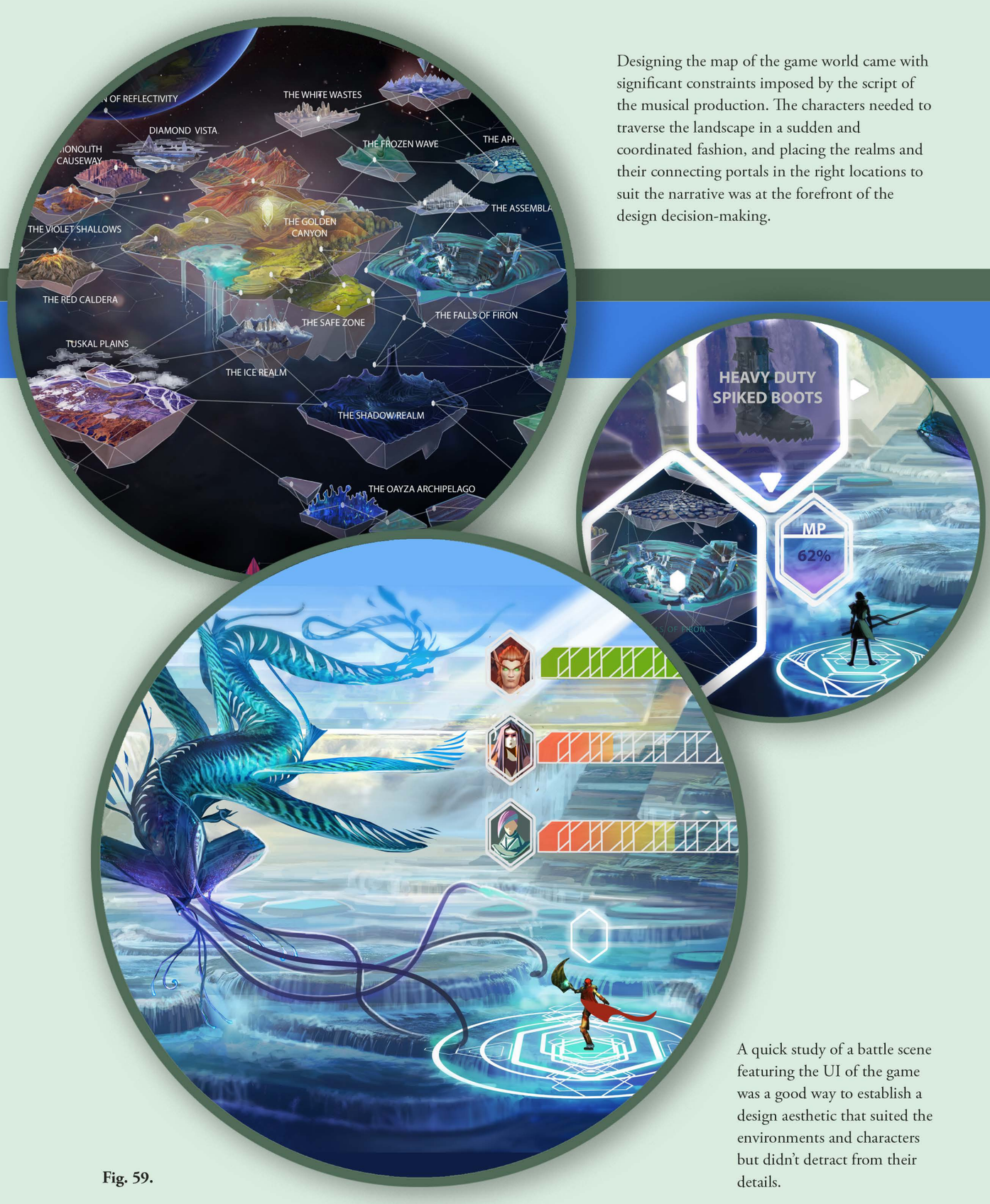


Fig. 59.

Designing the map of the game world came with significant constraints imposed by the script of the musical production. The characters needed to traverse the landscape in a sudden and coordinated fashion, and placing the realms and their connecting portals in the right locations to suit the narrative was at the forefront of the design decision-making.

A quick study of a battle scene featuring the UI of the game was a good way to establish a design aesthetic that suited the environments and characters but didn't detract from their details.

10

FINAL STYLE GUIDE

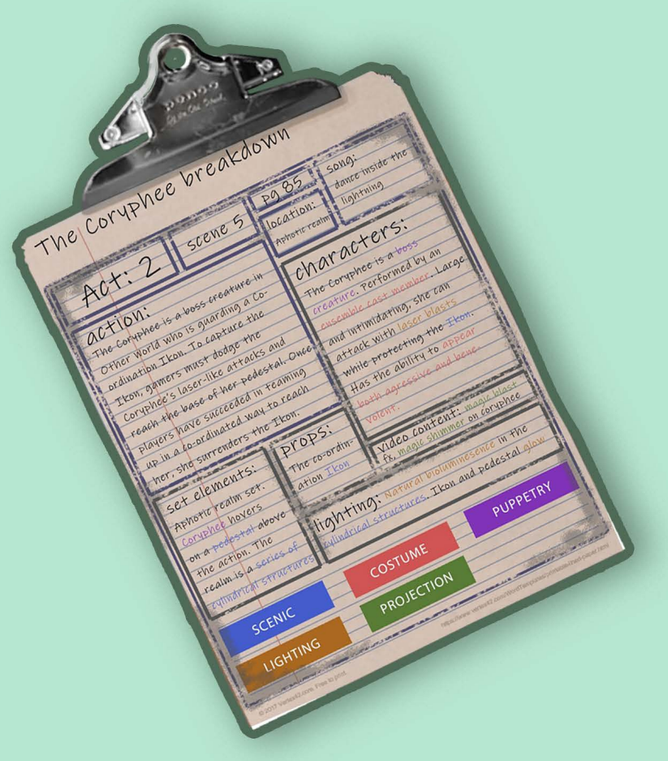
The culmination of Phase 2 of design was the collation and presentation of the finished Style Guide. This featured the world design at a holistic level, as well as documenting each key environment and each key character as featured in the narrative. Combining all the design together into a single guide was also helpful for giving anyone new to the project an at-a-glance view of the aesthetic and vision for the world.

PHASE 3

11

CREATING THE BRIEF FOR THE CREATURE/CHARACTER

The Style Guide for *Other World* formed the basis for the environments and key characters found in the world, and phase 3 began with the development of an ancillary character - or boss creature. Called the Coryphee, this creature is a keeper of a Coordination Ikon, and players must pass a test to earn the Ikon.



CASE STUDY EXAMPLE: GREY GOO (2015)

During the design development process for ***Grey Goo***, myself and the other designers at Weta Workshop developed a cultural aesthetic for a race of humanoid aliens called the Beta. In a similar fashion to the creation of a shape language for *Other World*, I created a visually-driven written language in the form of tattoos that all Beta wear. The shapes and ways of containing and placing them on the body became stylistically applicable to everything in Beta culture - from their architecture, to their clothing, to the shapes of their ploughed fields.

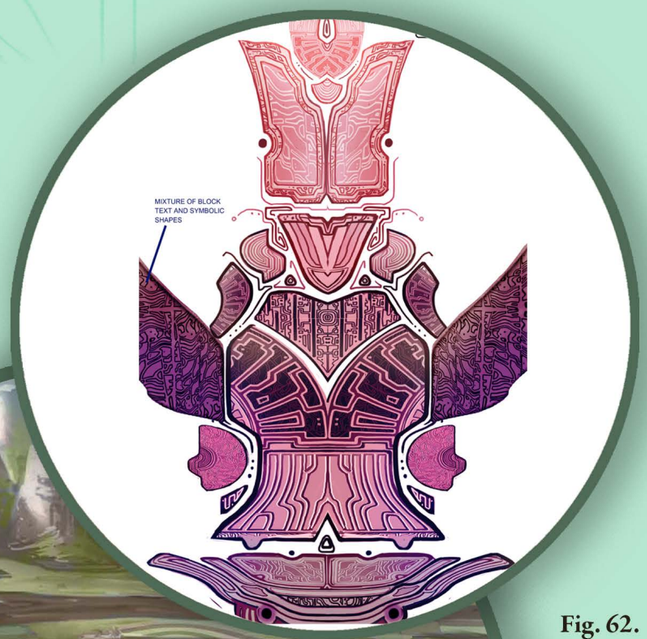


Fig. 62.

Fig. 60.

Fig. 61.

12

VISUAL RESEARCH

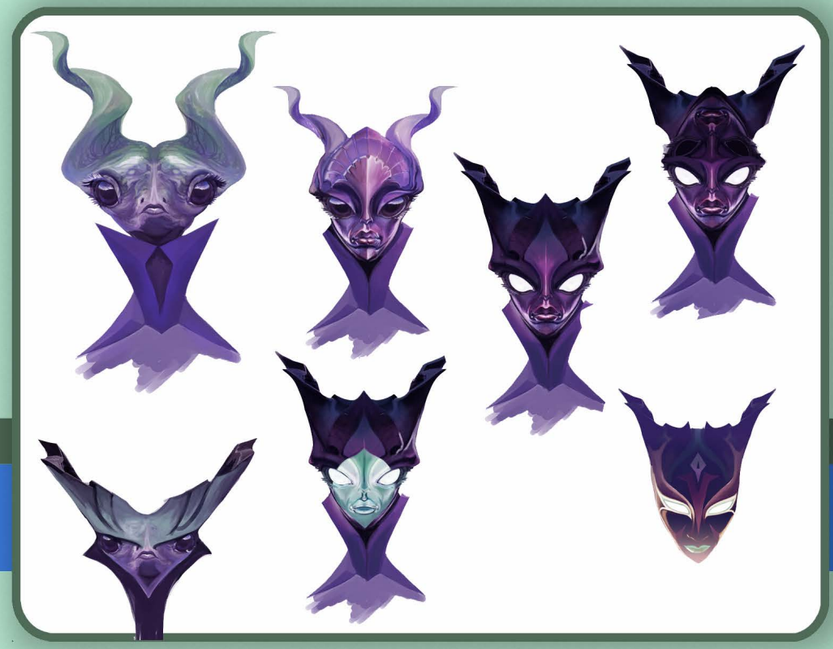
When beginning any new brief, even if there is stylistic precedent, a new round of visual research needs to be undertaken. As well as researching successful stage puppets of recent times, and what made them successful, I also had to look to the natural world for creatures that evoked the kind of character traits I was looking for.

Fig. 63.

13

DESIGN ROUND 1: ITERATIVE OPTIONS

Design began with loose iterative design options that relied heaviy on the shape language and colour way for the Army of Korborac group. These features were combined with traits I had established in my research phase as well as the literature on stylised character and costume design for games. As well as various bodytypes, I experimented with a large number of head/face options.



14

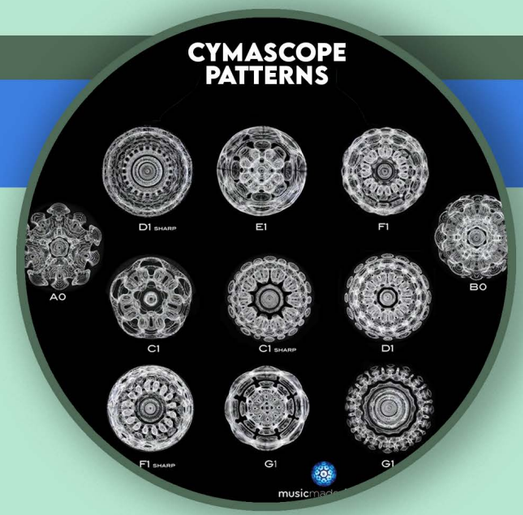
DESIGN ROUND 2: VARIATIONS

Being aware that, at least initially, the Coryphee was a game character, rather than a puppet, I experimented with gravity and physics-defying ideas, as well as body types that were based more on the utilisation of the shape language alphabet than real-world anatomy for similar types of creatures.

In some cases, refinement was about combining different features of the first round designs in different ways. Trying different faces with different bodies, trying designs with multiple sets of limbs, and swapping textural components were all part of a round-robin of design options.

Feedback from the client, as well as design instincts lead me to refine upon several different body types and faces establishing the previous round of design. These second round refinements were more detailed and polished. A key word for the Coryphee became 'ethereal,' and the idea of floating, shifting fabrics, and a lighter-than-air feel to the design influenced the direction.

15



As the pedestal surfacing detail, I decided to use cymascopic images, which represent the shape of water when exposed to specific frequencies. This was a subtle way to acknowledge the role moving to music has in playing the game and earning the Ikon.

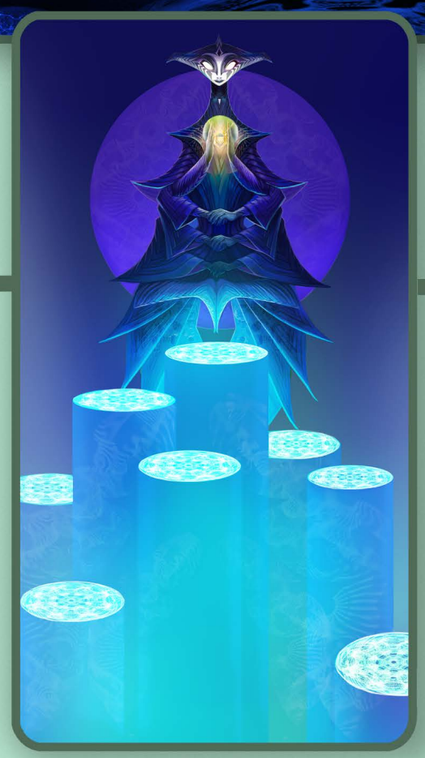
DESIGN ROUND 3: REFINMENT IN CONTEXT

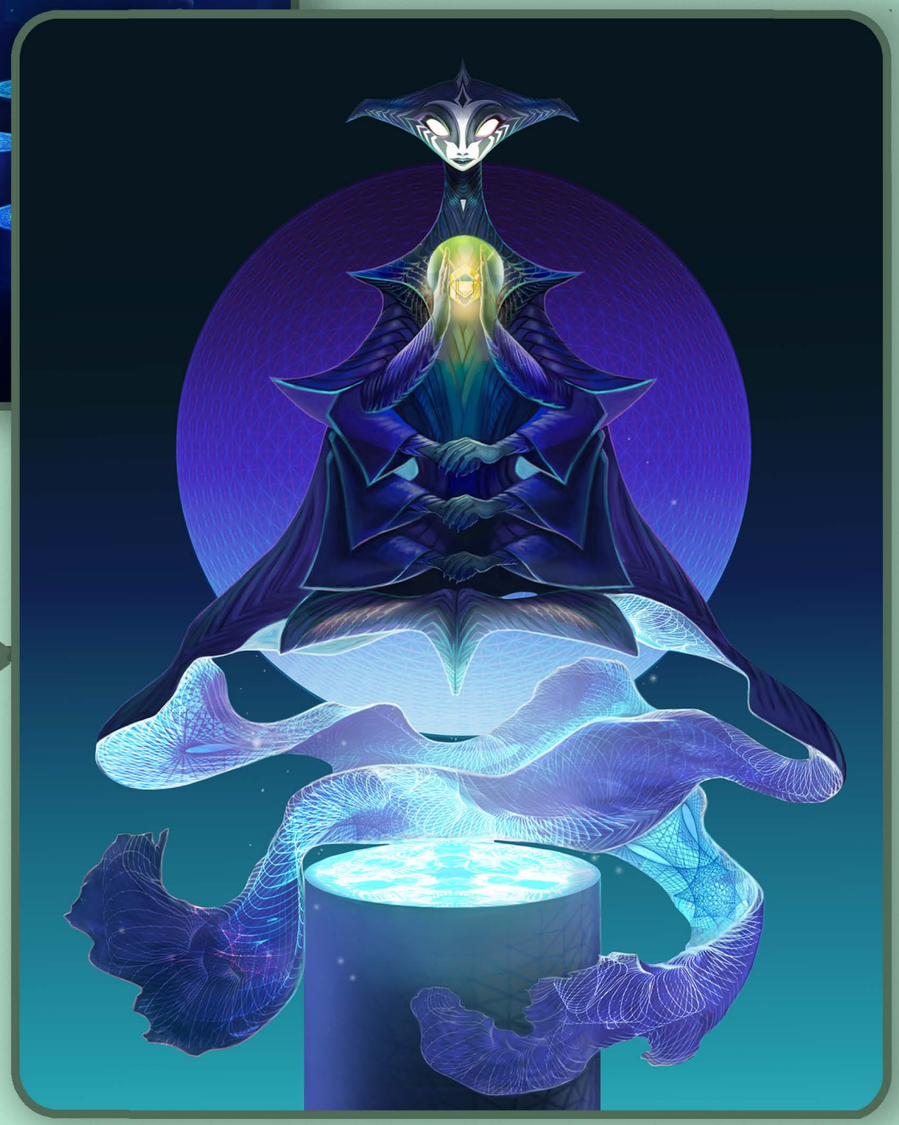
In round 3 I continued the process of choosing components that most appealed to the core essence of the character, and tried combining them in a large number of different ways, as well as adding in further detail and rendering technique.

Having designed the Coryphee's natural environment in the previous phase - the Aphotic Realm - the next step for the character design was to test it out in the established entvironment and make sure they were sympathetic to eachother. In addition - creating a believable character requires a level of awareness and suitability to its

16

THE FINAL DESIGN





Adding the character into the environment required a re-framing of the environment itself, and a process of composing its structure around the character. In order to visually enhance the affordances of the level design, I experimented with the heights and widths of the pedestals, as well as how the character interacted with them.

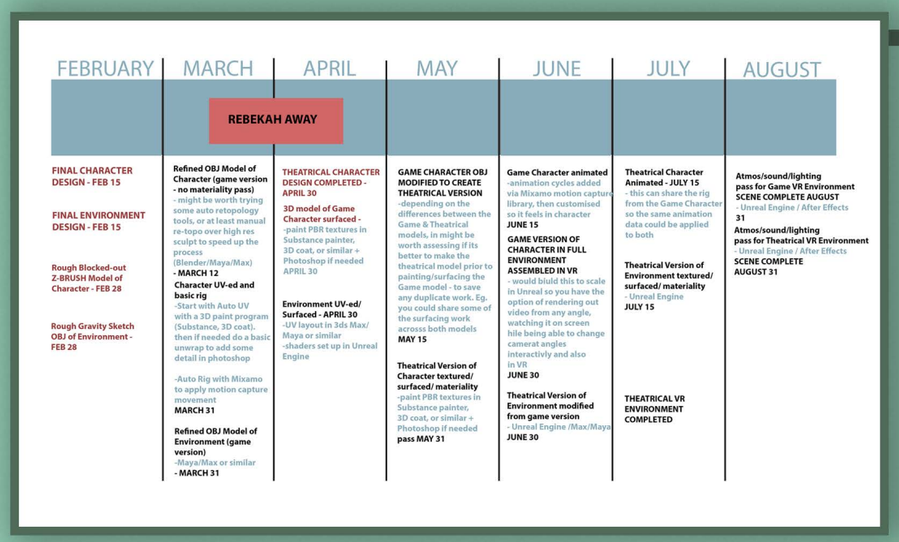
The final character design is framed by the moon and central pedestal, and I reverted to a previous option that conveyed the 'ethereal' nature of the flowing fabric.

PHASE 4

17

ART DIRECTING THE BUILD

Art directing the build for the proof of concept was a different process to art directing the previous phases of design. I have much less knowledge of the steps required in the modelling process, and could only suggest a visual direction, not a technical one. I put in place a schedule, but this was re-written by the Unreal Engine technician, so that it could incorporate the right pipeline.



18

MODELLING

Art Directing the 3D build of the Coryphee, produced in Z-brush, mostly involved paintovers of progress renders. Having created the initial design as only a front view, a lot of the paintovers were required to resolve the sides and back of the character. Seeing the character from alternate angles created unanticiapted design challenges that needed to be resolved in the model.

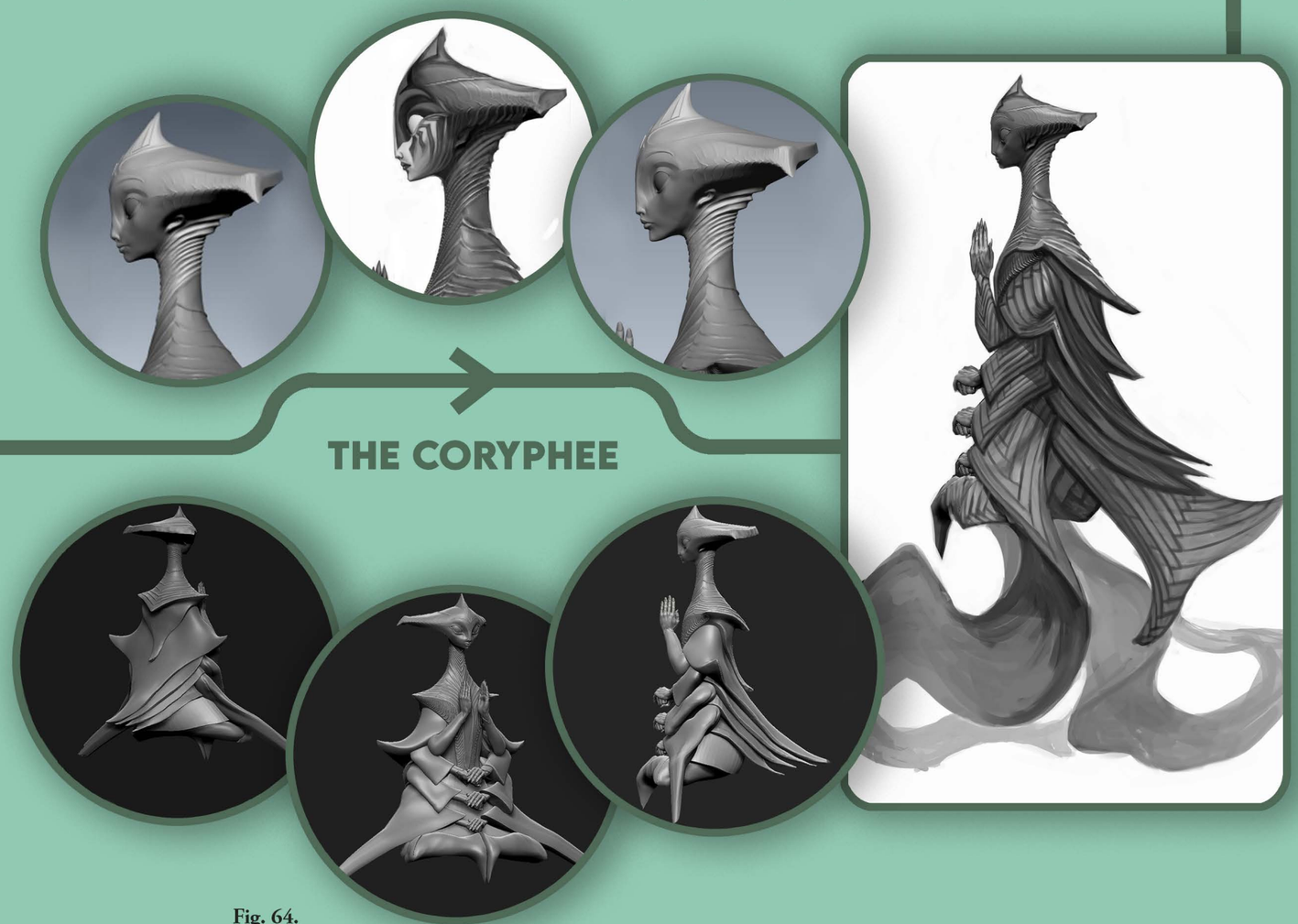


Fig. 64.

Fig. 65.

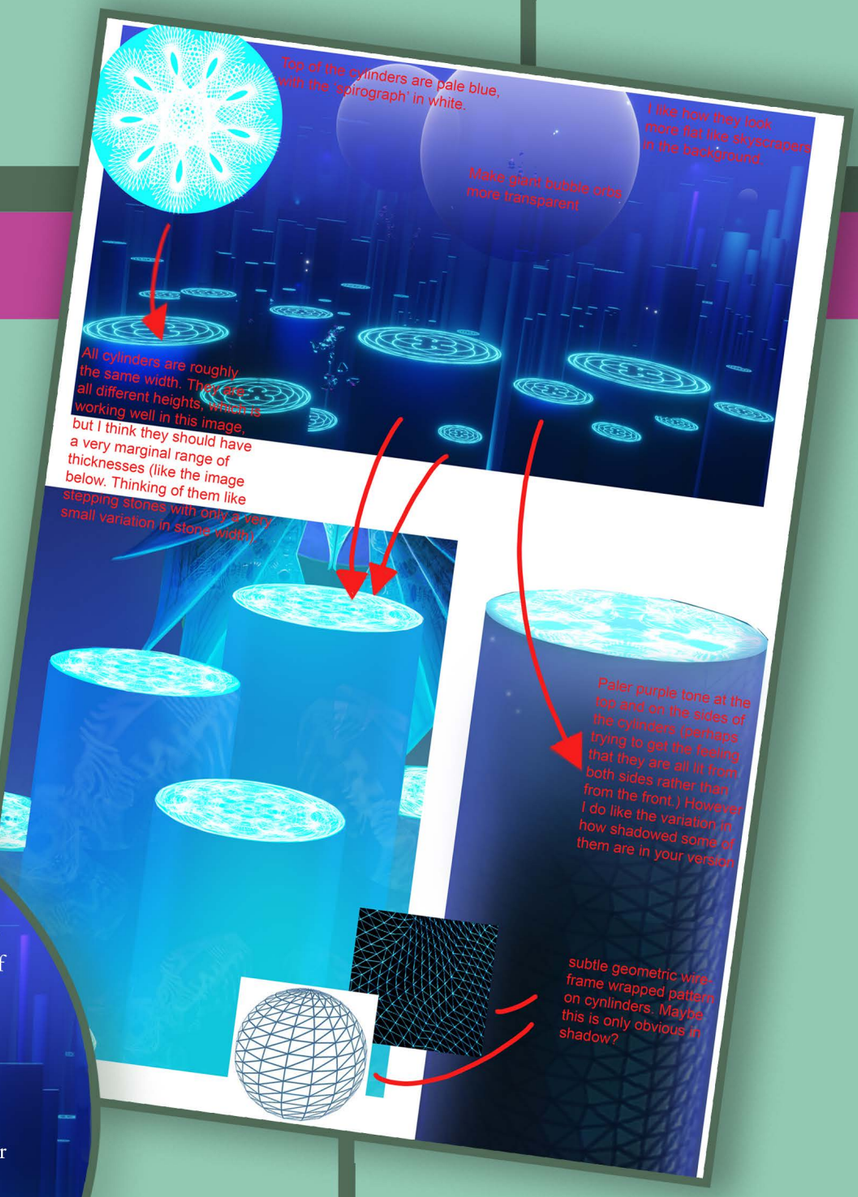
Fig. 66.

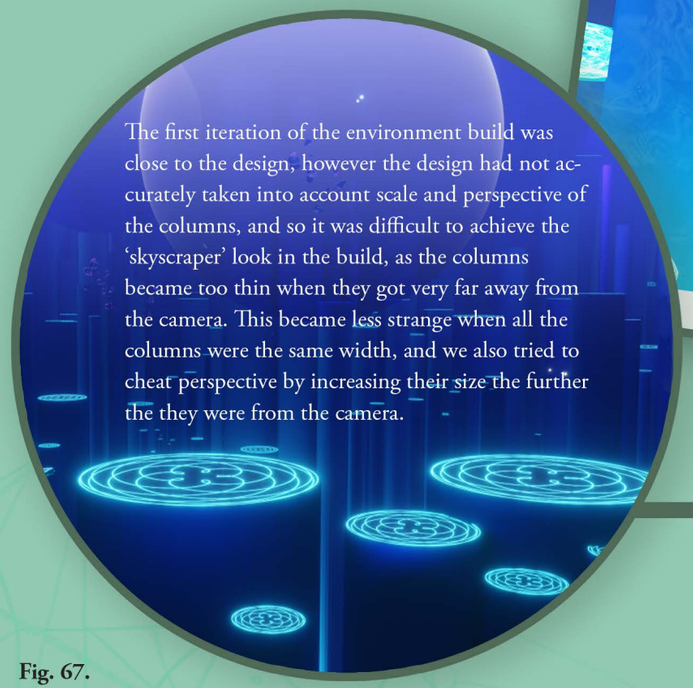
As the 3d model of the character began to resemble the design in structure, it became clear that the design had limitations in a flat and greyscale mode. Once colour and pattern were added, as well as deliberate 'make-up'-like gradient effects in the paint, the character came to life.

19

THE APHOTIC REALM

In a similar way to the character build, the environment build required paintovers to communicate to the technician where changes should be made. In some cases, I simply created a breakdown of the render to show what textures or colours should be applied to certain areas (such as the image on the right).





The first iteration of the environment build was close to the design, however the design had not accurately taken into account scale and perspective of the columns, and so it was difficult to achieve the 'skyscraper' look in the build, as the columns became too thin when they got very far away from the camera. This became less strange when all the columns were the same width, and we also tried to cheat perspective by increasing their size the further the they were from the camera.

Fig. 67.

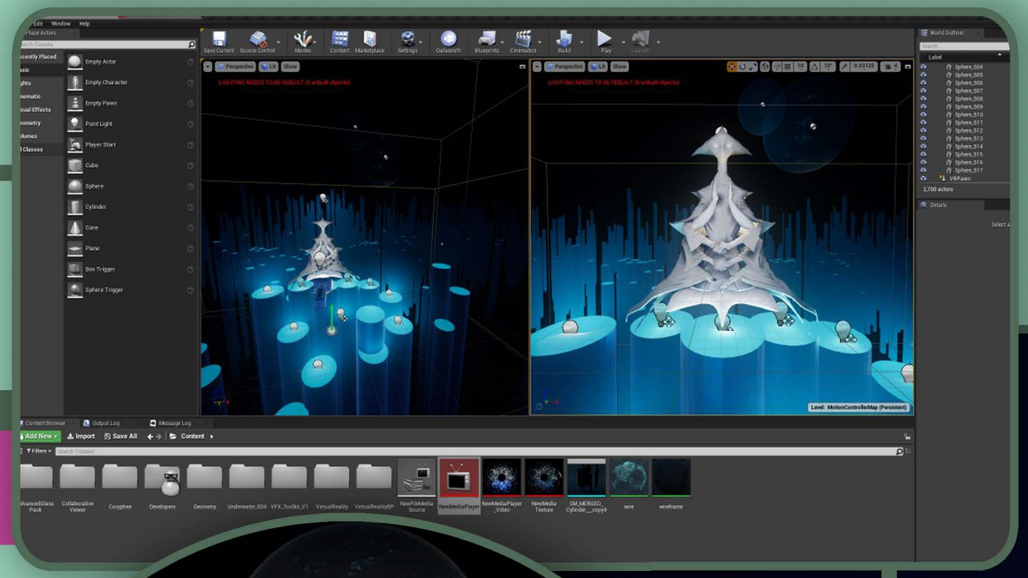


Fig. 68.

Fig. 69.

One of the final paintovers in the process was when the model of the Coryphee was placed into the environment, and needed to feel nested and centered in the space. We also tested the environment in VR to monitor how the light sources and atmosphere were adding to the character's presence.

The experience of the character in VR required subtle animation of the Coryphee to feel believable. We tried to keep this minimal - like sharing the space with a living breathing character who is passive but very present. This proof of concept is meant to highlight the aesthetic of the game, not the functionality, but this movement was important to the emotional resonance of the world.

THE FINAL GAME CHARACTER AND ENVIRONMENT

Fig. 70.

The final Coryphee in her seated position in the environmer

CASE STUDY EXAMPLE: THE LION KING

The Lion King fused puppets and performers together in a very powerful way. Not attempting to hide the actor, but embracing the visual qualites they brought to the performance was a very interesting way of adapting a stylised source material. While the Coryphee in ***Other World*** does need to act and sing, I felt that using the body to aid the performance, but not be visually obvious was necessary to retain the scale and non-human qualities of the design.

Fig. 71.

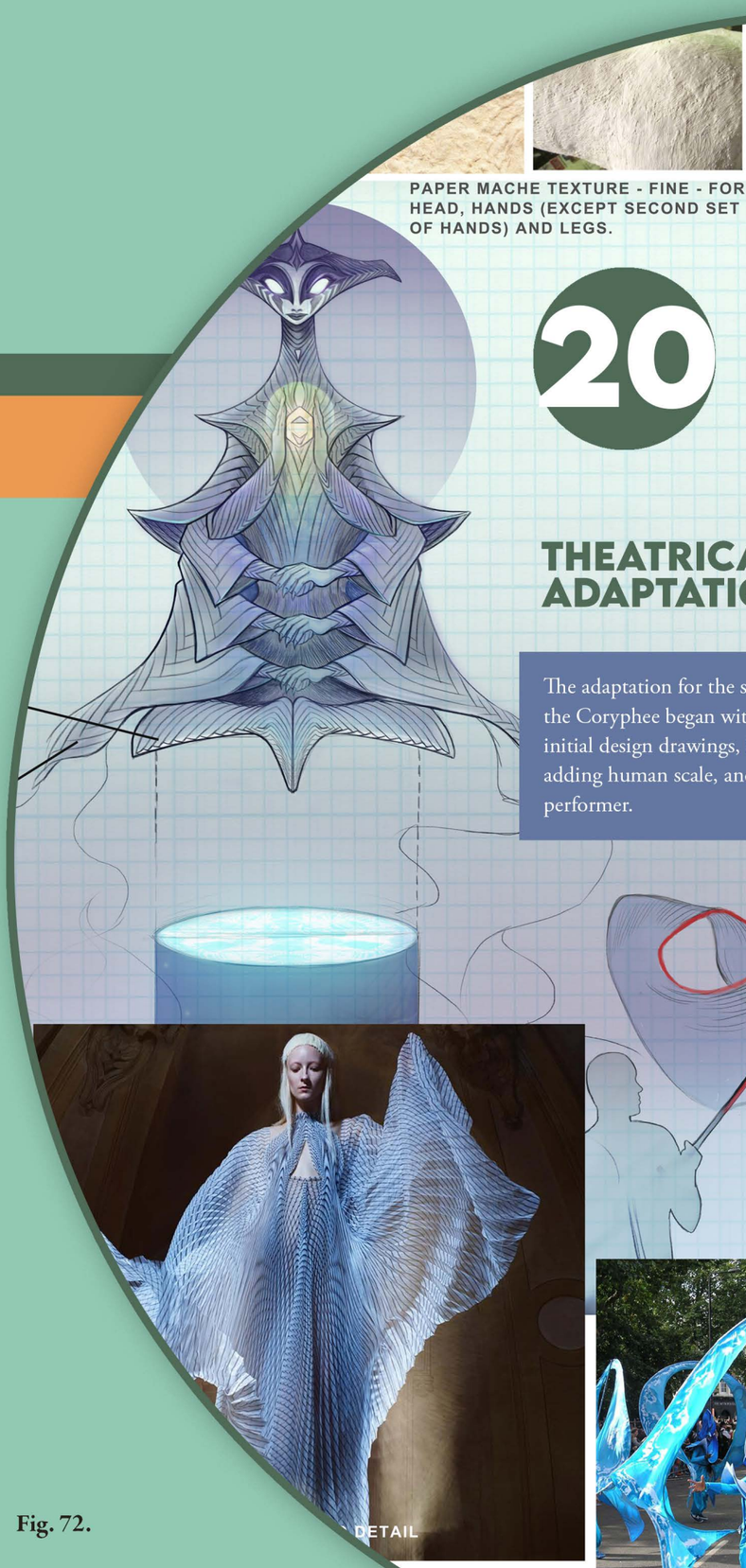
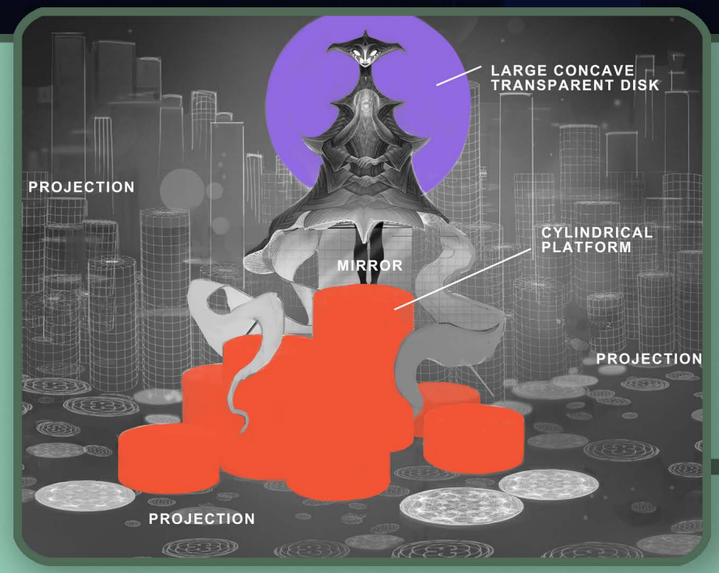


Fig. 72.

21

THE FINAL THEATRICAL DESIGN



Creating the stage setting for the Aphotic realm was a 'stripped back' version of the design, incorporating minimal physical architecture on stage. The projections that make up the bulk of the environment are also further stylised from the game renders, retaining the wireframes of the columns, and the cymascopic caps on the pillars. In some cases only outlines of the blocky distant forms are present.

Fig. 73.

9.0

FINDINGS & CONCLUSION

Fig. 74.

Fig. 75.

Designing source material for an original piece of theatre may seem to some like going backwards, as though retroactively filling a void that shouldn't have been there. However when faced with such ambitious scope, back-filling the complex character-driven narrative with visual context was a vital task for a show with the odds already stacked against it. It is a story about an established, beloved game with a loyal fan-following, and creating credibility when this game is fictional, and novel to the audience, is something that a strong design language can assist with. Creating and applying this language had the ultimate impact of, at the very least, giving the theatrical design journey a starting position and an aspirational example to follow.

Creating the style guide and being the champion of this visual material was the full scope of my role on Other World as Art Director, and though I created a theatrical proof of concept for the translation of the guide, this was outside my purview on the live job itself. The traditional hierarchy gives each HOD autonomy over their interpretation of the source material, and the Director of *Other World* Adrienne Campbell-Holt, maintained close lines of communication with the designers and their associates. All the designers, feeding the style guide material through their own filters of theatrical design understanding and experience, were able to reference elements of the visual aesthetic I created. Having this consistent point of reference was an important addition to the normal design process for theatre, and while it did not change the designers' individual methods or goals for their work, it could be seen as a common thread between their approaches.

This was the first time as a designer that I have ventured into the world of live theatre, and focussing the bulk of my design journey on world-building, character and environment design for a video game made the most sense from the perspective of my previous experience. But because this project was never ultimately a game design deliverable, understanding how the needs of the theatre might influence my creative decisions was an important opportunity to adapt and grow as a designer.

In early March 2020, *Other World* was due to begin its first out-of-town run at Bucks County Playhouse, PA. On the eve of its inaugural performance to a paying audience, the decision was made to close the theatre to prevent further spread of Covid-19 in the local area. On March 12, all theatres in the Broadway district closed, and the New York Times reported that they will remain closed for the remainder of the year (Paulson, 2020). Even though theatre is considered 'an industry of optimists' (Lewis, 2020), its practitioners are beginning to concede that the impact of Covid-19 might be insurmountable, and Helen Lewis of the Atlantic asks, 'when will we want to be in a room full of strangers again?' The nature of social distancing means that the shared experience of a live performance is no longer an option for those seeking this brand of entertainment. Our understanding of what constitutes a shared experience might need to evolve, and this evolution could perhaps create a deeper divergence of technology and abstract performance.

The technology required for an individual to be immersed in a pre-recorded or even live performance exists today, however the atmosphere derived from being in the physical presence of others is a difficult thing to replicate in VR. Platforms for VR engines are actively working on ways to share common experiences virtually, and concert performers are experimenting with how they can still perform for their fans while in lockdown themselves. *Other World* is in the arguably unique position in the theatre world of having a production that is inextricably linked with a digital reality. The show creators and producers are still considering ways in which this could be exploited in the post-Covid climate, and further integrating VR or AR in a social-distancing-friendly fashion is at the forefront of the discussion. Creating *Other World* the game has put this endeavour in a better position, because digital assets can be generated from the existing designs.

While the future of theatre is uncertain, the future of the online gaming industry looks bright. As people stay in the seclusion of their own homes, MMO video games have become one of the few unchanged ways in which people can continue to engage with others. This engagement with strangers is a core device in the narrative of *Other World*, and it isn't the only element of the show that is increasingly relevant. Music has always been an important part of a video game experience, but the genre of the Broadway-style musical is starting to find more of a home in games. At Pax Australia, 2019, Summerfall Studios announced they were making an 'adventure' musical video game called Chorus and Disney franchise Kingdom Hearts is going to release a music and rhythm based game later this year.

Ironically, two media that had been largely separate, and even considered incompatible, might find a way forward together in a virtual and a socially separate world.


THE CRYSTAL DELTA
THE WHITE WASTES
THE MOON OF REFLECTIVITY
DIAMOND VISTA
MONOLITH CAUSEWAY
THE FROZEN WAVE
THE APHOTIC
GLOWER CAVES
THE ROVING REALM
OUTERLAND
THE ASSEMBLAGE
THE EMERALD VALLEY
THE VIOLET SHALLOWS
THE SAFE ZONE
THE GOLDEN CANYON
METAMORPHIA
THE RED CALDERA
THE FALLS OF FIRON
THE SEVEN SUNS
TUSKAL PLAINS
THE ICE REALM
THE SHADOW REALM
AMBIGU ISLE
THE OAYZA ARCHIPELAGO

10.0 BIBLIOGRAPHY

Alger, J. (2012). The Art and Making of ParaNorman. Chronicle Books.

Billington, M. (2010). Enron's failure shows Broadway's flaws | Stage | The Guardian. https://www.theguardian.com/stage/theatreblog/2010/may/05/enron-broadway-close-early

Bloom, G. (2018). Gaming the stage. Playable media and the rise of English commercial theater. Ann Arbor: The University of Michigan Press.

Catlin, R. (2018). Hamilton's David Korins Explains What Makes the Smash Hit's Design So Versatile. Smithsonian. https://www.smithsonianmag.com/smithsonian-institution/hamiltons-david-korins-explains-what-makes-smash-hit-design-so-versitle-180969135/

Cote, D. (n.d.). Cirque du Soleil Paramour | Theater in New York. Time Out New York. https://www.timeout.com/newyork/theater/cirque-du-soleil-paramour

Cross, N. (1982). Designerly ways of knowing. Design Studies, 3(4), 221–227. https://doi.org/10.1016/0142-694X(82)90040-0

Davenport, K. (2014). Some startling new statistics on Broadway Musical Adaptations vs. Original Shows. | | The Producer's Perspective. https://www.theproducersperspective.com/my_weblog/2014/05/some-startling-new-statistics-on-broadway-musical-adaptations-vs-original-shows.html

Diver, M. (2014). The Making Of Monument Valley | Kotaku Australia. https://www.kotaku.com.au/2014/06/the-making-of-monument-valley/

Follows, S. (2018, April 30). The prevalence of sequels, remakes and original movies. Stephen Follows. https://stephenfollows.com/the-prevalence-of-sequels-remakes-and-original-movies/

Gard, T. (2000). Toby Gard 2000 Building Character | Narration | Animation. Scribd. https://www.scribd.com/document/321423675/Toby-Gard-2000-Building-Character

Gardner, L. (2010, March 24). A new stage age: Why theatres should embrace digital technology | Lyn Gardner. The Guardian. https://www.theguardian.com/stage/theatreblog/2010/mar/23/stage-theatre-digital-technology-ished

Giesekam, G. (2007). Staging the Screen: The Use of Film and Video in Theatre. Macmillan International Higher Education.

Greaux, E. L. (1998). It's good to be king. TCI: Theatre Crafts International, 32(3), 42.

Green, R., & Ledgard, H. (2011). Coding guidelines: Finding the art in the science. Communications of the ACM, 54(12), 57–63. https://doi.org/10.1145/2043174.2043191

Hutchison, A. (2008). Making the water move: Techno-historic limits in the game aesthetics of Myst and Doom. Game Studies: The International Journal of Computer Game Research, 8(1). https://espace.curtin.edu.au/handle/20.500.11937/10418

(IN-TEXT REFERENCES)

Jones, R. E. (2004). The Dramatic Imagination: Reflections and Speculations on the Art of the Theatre. Taylor & Francis.

Lawson, M. (2003). Mark Lawson: Recorded delivery | Art and design | The Guardian. https://www.theguardian.com/artanddesign/2003/apr/05/art.artsfeatures

Lee, A. (2019). Projection design is reinventing theater, and not just Broadway. National tours too. Los Angeles Times. https://www.latimes.com/entertainment-arts/story/2019-10-05/projection-design-theater-national-tours

Lewis, H. (2020). Theater Might Not Survive the Coronavirus—The Atlantic. https://www.theatlantic.com/international/archive/2020/05/theater-survive-coronavirus-art-west-end-broadway/611338/

Love, C. (2015). The challenges of using video in live theatre. The Stage. https://www.thestage.co.uk/features/the-challenges-of-using-video-in-live-theatre

Makryniotis, T. (2018). Fashion and Costume Design in Electronic Entertainment—Bridging the Gap between Character and Fashion Design. Fashion Practice, 10(1), 99–118. https://doi.org/10.1080/17569370.2017.1412595

McMullan, T. (2014, May 20). The immersed audience: How theatre is taking its cue from video games. The Guardian. https://www.theguardian.com/technology/2014/may/20/how-theatre-is-taking-its-cue-from-video-games

Midgley, G. (n.d.). Broadway's Big Problem: Introducing the Collaborator's Corner. OnStage Blog. https://www.onstageblog.com/columns/2016/2/1/broadways-big-problem-introducing-the-collaborators-corner

Moe, J. (2017). Musical 'Claudio Quest' based on video game. Orange County Register. https://www.ocregister.com/articles/pailet-742812-game-video.html

Morris, C. (2013). Behind the Scenes of the Paragon Studios Shutdown. https://www.gamasutra.com/view/feature/189896/behind_the_scenes_of_the_paragon_.php

Norris, M. (2008). The Little Mermaid, Heeling Hard to Broadway Port. All Things Considered (NPR). http://ezproxy.massey.ac.nz/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=nfh&AN=6XN20080111 2109&site=eds-live&scope=site

Norman, D. (2007). Emotional Design: Why We Love (or Hate) Everyday Things. Basic Books. http://ebookcentral.proquest.com/lib/massey/detail.action?docID=876410

Oleksinski, J. (2018). Broadway has robbed 'Frozen' of its heart and fun. https://nypost.com/2018/03/22/broadway-has-robbed-frozen-of-its-heart-and-fun/

Osborn, G. (2017). The case for a video game musical. Eurogamer. https://www.eurogamer.net/articles/2017-02-24-the-case-for-a-video-game-musical

Paulson, M. (2020, June 29). Broadway Will Remain Closed Through the Rest of the Year. The New York Times. https://www.nytimes.com/2020/06/29/theater/when-broadway-reopening-coronavirus.html

Pears, M. (2017). Design Pillars - The Core of Your Game. https://www.gamasutra.com/blogs/MaxPears/20171012/307469/Design_Pillars__The_Core_of_Your_Game.php

Peyser, M. (1994). Beauty and the bucks. Newsweek, 123(17), 65.

(IN-TEXT REFERENCES)

Posner, D. N., Orenstein, C., & Bell, J. (2014). The Routledge Companion to Puppetry and Material Performance. Routledge.

Reddy, S. K., Swaminathan, V., & Motley, C. M. (1998). Exploring the Determinants of Broadway Show Success. Journal of Marketing Research, 35(3), 370–383. https://doi.org/10.1177/002224379803500307

Robinson, M. (2015, March 20). The art of No Man's Sky. Eurogamer. https://www.eurogamer.net/articles/2015-03-20-the-art-of-no-mans-sky

Salen, K., Tekinbaş, K. S., & Zimmerman, E. (2004). Rules of Play: Game Design Fundamentals. MIT Press.
Schwartz, Theodora Skipitares, Julie Taymor, & C. Lee Jenner. (1983). Interview: Working with Puppets. Performing Arts Journal, 1, 103. https://doi.org/10.2307/3245302

Schwind, V., Wolf, K., & Henze, N. (2018). Avoiding the uncanny valley in virtual character design. Association for Computing Machinery. http://doi.org/10.1145/3236673

Sharp, J. (2015). Works of Game: On the Aesthetics of Games and Art. MIT Press.

Smith, M. (2015). "Resident Evil" the play is better than I expected. Engadget. https://www.engadget.com/2015-11-09-resident-evil-biohazard-the-stage-is-better-than-i-expected.html

Soloski, A. (2016, May 26). Cirque du Soleil's Paramour review – muddle, miscalculation and mayhem. The Guardian. https://www.theguardian.com/stage/2016/may/26/cirque-de-soleil-paramour-review-muddle-miscalculation-mayhem

Stephens. (2015). The lion queen. Age, The (Melbourne), 8.

Taylor, T. L. (2002). Living Digitally: Embodiment in Virtual Worlds. In R. Schroeder (Ed.), The Social Life of Avatars: Presence and Interaction in Shared Virtual Environments (pp. 40–62). Springer. https://doi.org/10.1007/978-1-4471-0277-9_3

Travers, P. (2019, March 11). 'Be More Chill' Brings Its Jagged Little Teen Pill to Broadway. Rolling Stone. https://www.rollingstone.com/culture/culture-news/be-more-chill-broadway-theater-review-806375/

White, C. A. (2009). Directors and designers. [Electronic resource] (Internet). Bristol : Intellect Books ; Chicago : University of Chicago Press, 2009.

Walvoord, D (2019). Lighting Design for Stylized Animation. DreamWorks Animation. SIGGRAPH '19 Courses, Los Angeles, CA, USA.

11.0 FIGURES

If not listed below, images featured in this document are the original work of Rebekah Tisch.

Figure 1. Wootten, B., Tisch, R., Hunter G. (2019). [Unknown realm in *Other World*]. Weta Workshop, Wellington, New Zealand.

Figure 2. Wootten, B., Hunter G. (2019). [Red Caldera realm in *Other World*]. Weta Workshop, Wellington, New Zealand.

Figure 3. Wootten, B., Tisch, R. (2019). [Unknown realm in *Other World*]. Weta Workshop, Wellington, New Zealand.

Figure 4. Smolan, R. (2019). [Portrait of Ann McNamee].

Figure 5. Dirty Sugar Photos. (n.d.). [Portrait of Hunter Bell].

Figure 6. Ennis, B. (n.d.). [Portrait of Jeff Bowen].

Figure 7. Rosegg, C. (2008). [Hunter Bell and Jeff Bowen perform in *[title of show]* on Broadway]. Playbill. https://www.playbill.com/article/part-of-it-all-title-of-show-opens-on-broadway-july-17-com-151676

Figure 8. Buddo, M. (2018). [Portrait of Rebekah Tisch]. Weta Workshop, Wellington, New Zealand.

Figure 9. Fraser-Allen, J. (2007). [Cartoon caricature sketch of Rebekah Tisch].

Figure 10. McKinnon, M. (2018). [Rebekah speaking at a panel at the Neuchatel International Fantastic Film Festival, Neuchatel, Switzerland.]

Figure 11. Wootten, B. (2019). [Falls of Firon realm in *Other World*]. Weta Workshop, Wellington, New Zealand.

Figure 12. Wootten, B. (2019). [Hylox creature concept]. Weta Workshop, Wellington, New Zealand

Figure 13. Wootten, B., Tisch, R. (2019). [Golden Canyon realm in *Other World*]. Weta Workshop, Wellington, New Zealand.

Figure 14. Marcus, J. (2016). [Performer in *Paramour* on Broadway]. Variety. https://variety.com/2016/legit/news/paramour-cirque-du-soleil-changes-broadway-1201836435/

Figure 15. Krulwich, S. (2019). [*Be More Chill* on Broadway]. The New York Times. https://www.nytimes.com/2019/03/10/theater/review-be-more-chill-joe-iconis.html

Figure 16. Daniel, J. (2015). [*Claudio Quest*]. StageBuddy. https://stagebuddy.com/theater/theater-review/review-claudio-quest

Figure 17. Murphy, M., Korins, D. (n.d.). JAPHY WEIDEMAN DESIGN INC. http://www.japhyweideman.com/electra-epidaurus-greece-2

Figure 18. Murphy, M., Korins, D. (n.d.). JAPHY WEIDEMAN DESIGN INC. http://www.japhyweideman.com/electra-epidaurus-greece-2

Figure 19. Marcus, J. (2016). [*The Lion King* on Broadway]. Broadway.com. https://www.broadway.com/photos/gallery/137/show-photos-the-lion-king/

Figure 20. DreamWorks Animation. (2010). [Still from *How to Train your Dragon*]. https://www.wallpaperflare.com/how-to-train-your-dragon-1-movie-still-how-to-train-your-dragon-dreamworks-movies-animated-movies-wallpaper-246011

Figure 21. DreamWorks Animation. (2014) [Still from *How to Train your Dragon 2*]. Time. https://time.com/102678/how-to-train-your-dragon-2-review-cannes/

Figure 22. Universal/Dreamworks. (2019). [Still from H*ow to Train your Dragon 3: Hidden World*]. The Insider. https://www.insider.com/how-to-train-your-dragon-hidden-world-review-2019-2

Figure 23. Hello Games. (2018). [Screenshot from *No Man's Sky*]. https://www.reddit.com/r/NoMansSkyTheGame/comments/91r52g/yep_this_is_the_no_mans_sky_i_dreamed_of_thank/

Figure 24. Wootten, B. (2019). [Aphotic realm concept for *Other World*]. Weta Workshop, Wellington, New Zealand.

Figure 25. Miller, R., Miller, R. (1993). [Screenshot from Myst]. MoMA. https://www.moma.org/collection/works/164918

Figure 26. Ustwo Games. (2014). [Screenshot from *Monument Valley*]. https://www.pocketgamer.com/games/021601/monument-valley/screenshots/

Figure 27. Tozer, G., Brinch, I., Flanagan, V., Anderson, A. (2020). [Unpainted 3d models of the 4 avatars]. Weta Workshop, Wellington, New Zealand.

Figure 28. Samonte, K. (2019). [Costume concept for the vendor in *Other World*]. Weta Workshop, Wellington, New Zealand.

Figure 29. Samonte, K. (2019). [Costume options for the vendor]. Weta Workshop, Wellington, New Zealand.

Figure 30. Disney. (2020). [Photographs from a new *Beauty and the Beast* stage show in development]. https://chipandco.com/new-beauty-beast-stage-show-premieres-disney-dream-288251/

Figure 31. [Loew's Kings Theatre - Blueprints for the Auditorium]. (n.d.). Theatre Historical Society of America.

Figure 32. Boneau, C., Bryan-Brown, A. (2014). [A performance of *The Curious Incident of the Dog in the Night-Time*]. Time. https://time.com/3475874/curious-incident-dog-night-time-theater-review/

Figure 33. Weta Workshop. (2017). [Still taken during a development workshop for *Other World*]. Weta Workshop, Wellington, New Zealand.

Figure 34. Korins, D. (2016). [*Hamilton* set designed by David Korins]. Vogue. https://www.vogue.com/article/hamilton-set-designer-david-korins

Figure 35. Murphy, M. (2019). [Persephone performing in *Hadestown* on Broadway]. The New Yorker. https://www.newyorker.com/culture/culture-desk/amber-grays-ferocious-twist-on-the-goddess-persephone-in-hadestown.

Figure 36. Wootten, B. (2019). [Hylox creature concept]. Weta Workshop, Wellington, New Zealand.

Figure 37. Anderson, A. (2018). [Concept for the garden of stars in *Other World*]. Weta Workshop, Wellington, New Zealand.

Figure 38. Wootten, B. (2019). [Aphotic realm concept for *Other World*]. Weta Workshop, Wellington, New Zealand.

Figure 39. Ustwo Games. (2014). [Screenshot from *Monument Valley*]. Idownloadblog. https://www.idownloadblog.com/2014/04/03/monument-valley/

Figure 40. Tran, A. (2020). [Still of Rebekah Tisch using the Oculus headset]. Weta Workshop, Wellington, New Zealand.

Figure 41. Laika. (2012). [Still from *Paranorman*]. New York Times. https://www.nytimes.https://www.nytimes.com/2012/08/17/movies/movie-review-paranorman-about-a-boy-and-zombies-with-elaine-stritch.html

Figure 42. Laika. (2012). [Still from *Paranorman*]

Figure 43. Smith, H. (2012). [Character design for *Paranorman*]. Character Design References. https://characterdesignreferences.com/art-of-animation-6/art-of-paranorman

Figure 44. Escher, M. Fish and Scales. (1959).[Woodcut of fish]. M.C. Escher Foundation & The M.C Escher Company. https://mcescher.com/gallery/transformation-prints/#iLightbox[gallery_image_1]/9

Figure 45. Ustwo Games. [Screenshot from *Monument Valley*]. JeuMobi.com https://www.jeumobi.com/en/blog/monument-valley-3-in-development-at-ustwo-games/

Figure 46. Hello Games. (2016). [Screenshot from *No Man's Sky*]. Eurogamer. https://www.eurogamer.net/articles/2016-09-28-advertising-standards-launches-investigation-into-no-mans-sky

Figure 47. Nomada Studio. (2018). [Screenshot from *Gris*]. Rock Paper Shotgun. https://www.rockpapershotgun.com/2018/12/17/a-gallery-of-ways-that-gris-is-beautiful/

Figure 48. Laika. (2016). [Screenshot from *Kubo and the Two Strings*]. Laika Wiki. https://laika-entertainment.fandom.com/wiki/The_Sisters

Figure 49. Cartoon Saloon. (2009). [Screenshot of the forest from *Secret of Kells*]. https://thesecretofkells.fandom.com/wiki/The_Forest

Figure 50. Mojang Studios, Sony Interactive Entertainment, Xbox Game Studios. (2009). [Screenshot from *Minecraft*]. The Verge. https://www.theverge.com/2019/5/7/18535625/minecraft-classic-anniversary-browser-game

Figure 51. Thatgamecompany. (2012). [Screenshot from *Journey*].

Figure 52. Thatgamecompany.(2012). [Screenshot from *Journey*]. The New Yorker. https://www.newyorker.com/tech/annals-of-technology/a-journey-to-make-video-games-into-art.

Figure 53. Samonte, K. (2019). [Rough character design options for the avatars]. Weta Workshop, Wellington, New Zealand.

Figure 54. Samonte, K. (2019). [Rough character design options for the avatars]. Weta Workshop, Wellington, New Zealand.

Figure 55. Samonte, K. (2019). [Rough character design options for the avatars]. Weta Workshop, Wellington, New Zealand.

Figure 56. Samonte, K. (2019). [Colour study options for the Draz]. Weta Workshop, Wellington, New Zealand.

Figure 57. Samonte, K., Tisch, R., Trenor-Hunt, T., Wootten, B. (2019). [The Draz character design, with the Falls of Firon in the background]. Weta Workshop, Wellington, New Zealand.

Figure 58. Middleton, A., Wootten, B., Tisch, R. (2019). [Antagon character design]. Weta Workshop, Wellington, New Zealand.

Figure 59. Tisch, R., Wootten, B. (2019). [Battle Scene featuring Ben Wootten's creature design]. Weta Workshop, Wellington, New Zealand.

Figure 60. Tisch, R., Baker, A. (2014). [Tattoo designs placed onto the Beta Alien for *Grey Goo*]. Petroglyph Games. Weta Workshop, Wellington, New Zealand.

Figure 61. Tisch, R. (2014). [Landscape colour study for *Grey Goo*]. Petroglyph Games. Weta Workshop, Wellington, New Zealand.

Figure 62. Tisch, R. (2014). [Tattoo and Beta language design]. Petroglyph Games. Weta Workshop, Wellington, New Zealand.

Figure 63. [Google Search Moodboard]. (2020).

Figure 64. Docherty, H. (2020). [Renders of Coryphee 3d model concept].

Figure 65. Docherty, H. (2020). [Renders of Coryphee 3d model concept].

Figure 66. Docherty, H. (2020). [Renders of Coryphee 3d model concept].

Figure 67. Williamson, C. (2020). [Screenshot of aphotic realm environment in Unreal Engine with Coryphee model stand-in].

Figure 68. Williamson, C. (2020). [Screenshot of aphotic realm environment in Unreal Engine with Coryphee model stand-in].

Figure 69. Williamson, C. (2020). [Screenshot of aphotic realm environment in Unreal Engine with Coryphee model stand-in].

Figure 70. Williamson, C. (2020). [Final render of game environment in Unreal Engine].

Figure 71. Marcus, J. (2012). [J. Anthony Crane as 'Scar,' in the national tour of *The Lion King*]. Richmond Times-Dispatch. https://richmond.com/entertainment/puppets-and-people-become-one-in-the-lion-king/article_2ad452e7-a1a8-5424-9b8b-721848c079c3.html

Figure 72. [Google Search Moodboard #2]. (2020).

Figure 73. Williamson, C. (2020). [Final render of theatrical environment in Unreal Engine].

Figure 74. Wootten, B. (2019). [Antagon's Lair concept for *Other World*]. Weta Workshop, Wellington, New Zealand.

Figure 75. [*Other World* on stage at Bucks County Playhouse]. (2020). Alchemy Production Group, New York, NY, United States.

ADDITIONAL REFERENCES (SOURCES NOT DIRECTLY CITED)

Arelleno, C. (2014). Costume Design and Illustration. Design Studio Press.

Bacher, H. (2012). Dream Worlds: Production Design for Animation. CRC Press.

Bancroft, T. (2016). Creating Characters with Personality. Potter/Ten Speed/Harmony/Rodale.

Barnwell, J. (2004). Production Design: Architects of the Screen. Wallflower Press.

Beene, L. (2018). Digital Costume Design and Collaboration: Applications in Academia, Theatre, and Film. TD&T: Theatre Design & Technology, 54(1), 66–67.

Bellman, W. F. (2001). Lighting the stage: Art and practice. Broadway Press.

Berger, G. (2013). Song of Spider-Man: The Inside Story of the Most Controversial Musical in Broadway History. Simon and Schuster.

Block, B. A. (2001). The visual story: Seeing the structure of film, TV, and new media. Focal Press.

Blom, P. V. (1984). Tanya Moiseiwitsch, costume designer: The creative process (Wellington 792.026092 MOI Blo). Ann Arbor, Mich. : UMI, c1982.

Brewster, K., & Shafer, M. (2011). Fundamentals of Theatrical Design: A Guide to the Basics of Scenic, Costume, and Lighting Design. Skyhorse Publishing, Inc.

Caines, M. (2014, August 26). Interview with Ben Glover, digital theatre masters student | Tech talk. The Guardian. https://www.theguardian.com/culture-professionals-network/culture-professionals-blog/2014/aug/26/ben-glover-digital-theatre-tech-talk

Calhoun, J. (2002). Clothes that go pop (William Ivey Long's race-defining, class-defining and character-defining costumes for the Broadway musical 'Hairspray'). ENTERTAINMENT DESIGN, 36(11), 26.

Carter, M. C., & Beaty, B. (2011). Tribute to Julie Taymor's Lion King Costumes. Arts & Activities, 149(4), 24.

Cerratto-Pargman, T., Rossitto, C., & Barkhuus, L. (2014). Understanding Audience Participation in an Interactive Theater Performance. Proceedings of the 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational, 608–617. https://doi.org/10.1145/2639189.2641213

Chang, J. (2018). Frozen: The Broadway Musical. Good Morning America (ABC), 1.

Channick, J. (2003). Turn Around at the Roundabout: An Artistic Director Explains How He Led a Theatre from Bankruptcy to Broadway. American Theatre, 20(3).

ADDITIONAL REFERENCES (SOURCES NOT DIRECTLY CITED)

Clawson, K. (2018). Review: “Aladdin” soars with showstopping stage magic. Akron Beacon Journal (OH). http://ezproxy.massey.ac.nz/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=nfh&AN=2W64140774629&site=eds-live&scope=site

Cohen, D. S. (2015). Deborah Cook. Variety, 330(10), 90.

Cross, N. (2011). Design Thinking: Understanding How Designers Think and Work. Berg.

Cunningham, R. (2009). The magic garment: Principles of costume design (Wellington 792.026 Cun). Long Grove, IL : Waveland Press, c2009.

Del Valle, T., Bynum, N., & Merrick, M. (2006). Producing for the theatre: The dreamers and the builders (Internet). Los Angeles, CA : TMW Media Group, 2006.

Derschowitz, J. (2016). A Tale as Old as 25. Entertainment Weekly, 1430, 46–47.

Edsall, R., & Larson, K. L. (n.d.). Decision making in a virtual environment: Effectiveness of a semi-immersive “Decision Theater” in understanding and assessing human-environment interactions. 11.

Flusser, V. (2013). Shape of Things: A Philosophy of Design. Reaktion Books.

Frasca, G. (2013, October 8). Simulation versus Narrative: Introduction to Ludology. The Video Game Theory Reader. https://doi.org/10.4324/9780203700457-17

Fullerton, T., Swain, C., & Hoffman, S. (2004). Game Design Workshop: Designing, Prototyping, & Playtesting Games. CRC Press.

Green, A. M. (2018). Storytelling in video games: The art of the digital narrative (Internet). Jefferson, North Carolina : McFarland & Company, Inc., Publishers, [2018].

Hamilton, K. (2012, August 17). One Day Soon, We’ll Have A Real Video Game Musical. Kotaku Australia. https://www.kotaku.com.au/2012/08/one-day-soon-well-have-a-real-video-game-musical/

Hasham, A. (n.d.). Creating ParaNorman. Toronto Star (Canada). http://ezproxy.massey.ac.nz/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=anh&AN=6FP0349241490&site=eds-live&scope=site

Hays, D. (2017). Setting the Stage: What We Do, How We Do It, and Why. Wesleyan.

Healy, P. (2011). “Spider-Man” Isn’t Just the Talk of Broadway, It’s the Punch Line. New York Times, 160(55308), 1.

Hefner, D., Klimmt, C., & Vorderer, P. (2007). Identification with the Player Character as Determinant of Video Game Enjoyment. In L. Ma, M. Rauterberg, & R. Nakatsu (Eds.), Entertainment Computing – ICEC 2007 (pp. 39–48). Springer Berlin Heidelberg.

Heller, S., & Vienne, V. (2006). The education of an art director (Wellington 707.11 Edu). New York, NY : Allworth Press, c2006.

ADDITIONAL REFERENCES (SOURCES NOT DIRECTLY CITED)

Hewitt, C. (2017). How to create “Aladdin’s” showstopper on stage? Start with the movie ... Saint Paul Pioneer Press (MN). http://ezproxy.massey.ac.nz/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=nfh&AN=2W618831003 41&site=eds-live&scope=site

Hopkins, M., & Netto, C. (2018). Gargantuan: The Thrills and Challenges of Creating Immersive Theatre. CANADIAN THEATRE REVIEW, 173, 53–58. https://doi.org/10.3138/ctr.173.009

Ifeanyi, K. (2017). Inside The Creative Problem Solving Of Broadway Film Adaptations. https://www.fastcompany.com/40419304/inside-the-creative-problem-solving-of-broadway-film-adaptations

Isbister, K. (2006). Player-Characters. In Better Game Characters by Design (pp. 203–223). Elsevier. https://doi.org/10.1016/B978-1-55860-921-1.50019-3

Isbister, K., & Schafer, T. (2006). Better Game Characters by Design: A Psychological Approach. CRC Press.

Jia, S. (2013). Stage design: Concerts, events, ceremonies and theate (Wellington 792.025 Sta). Berkeley, CA : Gingko Press, Inc., 2013.

Johnson, M. R. (2017, October 24). The History of Cyberspace Aesthetics in Video Games. Cyberpunk and Visual Culture. https://doi.org/10.4324/9781315161372-10

Judge, A. (2019, February 8). “Playable shows are the future”: What Punchdrunk theatre learned from games. The Guardian. https://www.theguardian.com/games/2019/feb/08/playable-shows-are-the-future-what-punchdrunk-theatre-learned-from-video-games

Fricker, K. (2017). Tale’s heart beats loud and clear. Toronto Star (Canada). http://ezproxy.massey.ac.nz/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=anh&AN=6FPTS2017111444172017&site=eds-live&scope=site

Kazuschyk, K. (2018). Embracing the Chaos: Creating Costumes for Devised Work. Theatre Symposium, 26, 58–71. https://doi.org/10.1353/tsy.2018.0004

Kennedy, F. (2011, June 6). Can video games help theatre reach the next level? | Fin Kennedy. The Guardian. https://www.theguardian.com/stage/theatreblog/2011/jun/06/video-games-theatre-technology

Kenyon, N. (2009, November 24). Digital technology and the arts: All the world’s a screen. The Guardian. https://www.theguardian.com/stage/2009/nov/24/digital-technology-live-performance

Krebs, K. (2013). Translation and Adaptation in Theatre and Film. Routledge.

Kroll, J. (1997). A magic kingdom. Bulletin with Newsweek, 116(6100), 70.

Kucharski, J. (2017). Curating the Character’s Closet. Stage Directions, 30(8), 20.

Lassell, M. (2007). Tarzan: The Broadway Adventure. Disney Editions.

ADDITIONAL REFERENCES (SOURCES NOT DIRECTLY CITED)

Laurel, B. (2003). Design Research: Methods and Perspectives. MIT Press.

Leba Hertz. (2010). “Beauty” shifts deftly from film to stage. San Francisco Chronicle (10/1/2007 to Present), F1.

Lefebvre, E. (n.d.). Perfect Ten: MMORPGs with distinct visual styles | Massively Overpowered. Retrieved April 17, 2019, from https://massivelyop.com/2016/06/10/perfect-ten-mmorpgs-with-distinct-visual-styles/

LoBrutto, V. (2002). The Filmmaker’s Guide to Production Design. Skyhorse Publishing, Inc.

Malloy, K. (2014). The Art of Theatrical Design: Elements of Visual Composition, Methods, and Practice. CRC Press.

Marner, M. R., Haren, S., Gardiner, M., & Thomas, B. H. (2012). Exploring interactivity and augmented reality in theater: A case study of Half Real. 2012 IEEE International Symposium on Mixed and Augmented Reality - Arts, Media, and Humanities (ISMAR-AMH), 81–86. https://doi.org/10.1109/ISMAR-AMH.2012.6483993

Mavridis, N., & Hanson, D. (2009). The IbnSina interactive theater: Where humans, robots and virtual characters meet. RO-MAN 2009 - The 18th IEEE International Symposium on Robot and Human Interactive Communication, 213–213. https://doi.org/10.1109/ROMAN.2009.5326144

McGonigal, J. (2011). Reality is broken: Why games make us better and how they can change the world. Penguin Press.

Merrick, M., Casale, G., Ritchie, M., & Carroll, B. (2005). Producing for the theatre: The forces who run the theatre (Internet). Los Angeles, CA : TMW Media Group, 2005.

Milton, A., & Rodgers, P. (2013). Research methods for product design (Wellington 745.2072 Mil). Laurence King Publishing.

Mitchell, A. (n.d.). Making the Familiar Unfamiliar: Techniques for Creating Poetic Gameplay. 16.

Mulay, J. (2018). Andrew Hungerford: Art & Science. American Theatre, 35(6), 22.

Neher, E. (2016). The New Immersive Theater. The Hudson Review, 69(1), 108.

Newmark, J. (2017). “The Lion King” fills the Fox with glorious theatricality. St. Louis Post-Dispatch (MO). http://ezproxy.massey.ac.nz/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=nfh&AN=2W620944 79607&site=eds-live&scope=site

Nitsche, M. (2008). Video Game Spaces: Image, Play, and Structure in 3D Worlds. MIT Press.

Ohler, J. (n.d.). The World of Digital Storytelling. 6.

ADDITIONAL REFERENCES (SOURCES NOT DIRECTLY CITED)

Patmore, C. (2005). Character design: Create cutting-edge cartoon figures for comic books, computer games and graphic novels (Wellington 741.5 Pat). London : A. & C. Black, 2005.

Perlin, K., & Goldberg, A. (1996). Improv: A System for Scripting Interactive Actors in Virtual Worlds. Proceedings of the 23rd Annual Conference on Computer Graphics and Interactive Techniques, 205–216. https://doi.org/10.1145/237170.237258

Polson, T. (2013). The Noble Approach: Maurice Noble and the Zen of Animation Design. Chronicle Books.

Purves, B. (2014). Stop-motion animation: Frame by frame film-making with puppets and models (Wellington 777.7 Pur). London, UK : Fairchild Books, an imprint of Bloomsbury Publishing Plc, 2014.

Rizzo, M. (2013). The Art Direction Handbook for Film. Routledge. https://doi.org/10.4324/9780080472027

Robertson, S. (2015). How to Design: Concept Design Process, Styling, Inspiration, and Methodology. Design Studio Press.

Rowe, C. P. (2007). Drawing & rendering for theatre: A practical course for scenic, costume, and lighting designers (Wellington 792.025 Row). Amsterdam ; Boston : Focal Press, c2007.

Rozario, R.-A. D. (2004). Reanimating the Animated: Disney's Theatrical Productions. TDR: The Drama Review: A Journal of Performance Studies, 48(1 [T181]), 164–177.

Schell, J. (2014). The Art of Game Design: A Book of Lenses, Second Edition. A K Peters/CRC Press. https://doi.org/10.1201/b17723

Schön, D. A. (2017). The Reflective Practitioner: How Professionals Think in Action. Routledge. https://doi.org/10.4324/9781315237473

Swink, S. (2008). Game Feel: A Game Designer's Guide to Virtual Sensation. CRC Press. https://doi.org/10.1201/9781482267334

Taymor, J. (2017). The Lion King: Pride Rock on Broadway. Disney Editions.

Tschang, F. T. (2007). Balancing the Tensions Between Rationalization and Creativity in the Video Games Industry. Organization Science, 18(6), 989–1005. https://doi.org/10.1287/orsc.1070.0299

Wands, B. (2007). Art of the Digital Age. Thames & Hudson.

Zillmann, D., & Vorderer, P. (2000). Media Entertainment: The Psychology of Its Appeal. Routledge.