

# A robot awoken in a post-apocalyptic world, attempts to build itself a companion.

Zach Hewett

Student ID Number: 1909659

Unit: FGMD7004

**Realisation & Dissemination: Pre-Production** 

#### **Table of Contents**

04	<b>Story Summary</b> Early concept art with story summary Close-ups of concept art	2 5	<b>Gameplay/Mechanics</b> Traversal and environmental challenges
07	Background Story	29	Engine Choice
09	<b>Story Flowchart</b> Flowchart showing progession of major plot points Reasoning behind and clarification of flowchart	31	<b>Target Audience</b> Who the game is for Analysis of audience, gender, income and platform
12	Storyboard Example	35	Moodboard
14	<b>Character Design</b> Character concept art with description	43 47	Inspiration References
20	<b>Environment Design</b> Use of environmental storytelling Design to guide player and progress narrative	47	References

#### STORY SUMMARY

Zero is about a sentient robot who comes online shortly after the extinction of all humanity. The robot is severely damaged and overcome by moss, a biological infection that corrupts its perfect brain, creating consciousness and dramatically changing its perception of self and the surrounding world.

The robot (which refers to itself as Zero) activates near the body of another robot (One) and develops a seemingly emotional connection, becoming obsessed with trying to repair it.

Along the way, whilst hunting for parts, Zero learns of its own origins, creator and intended purpose, as well as the events that led to the end of humanity.

When Zero finally powers up One it discovers how different they are, and attempts to awaken a consciousness, similar to the one created by the moss in its own circuits, inside of One.

ZERO ORIGINAL CONCEPT ART





### **BACKGROUND STORY**

Much like the fall of the Roman Empire, the fall of humanity within the game will be caused by many factors such as global warming, war, disease and falling birth rates. The game will explore all of these and more, looking at the environmental and societal consequences of each and attempting to convey those to the player entirely through the game world and props (not through overtly expositional dialogue or large blocks of text).

For example, the player may be required to travel through a

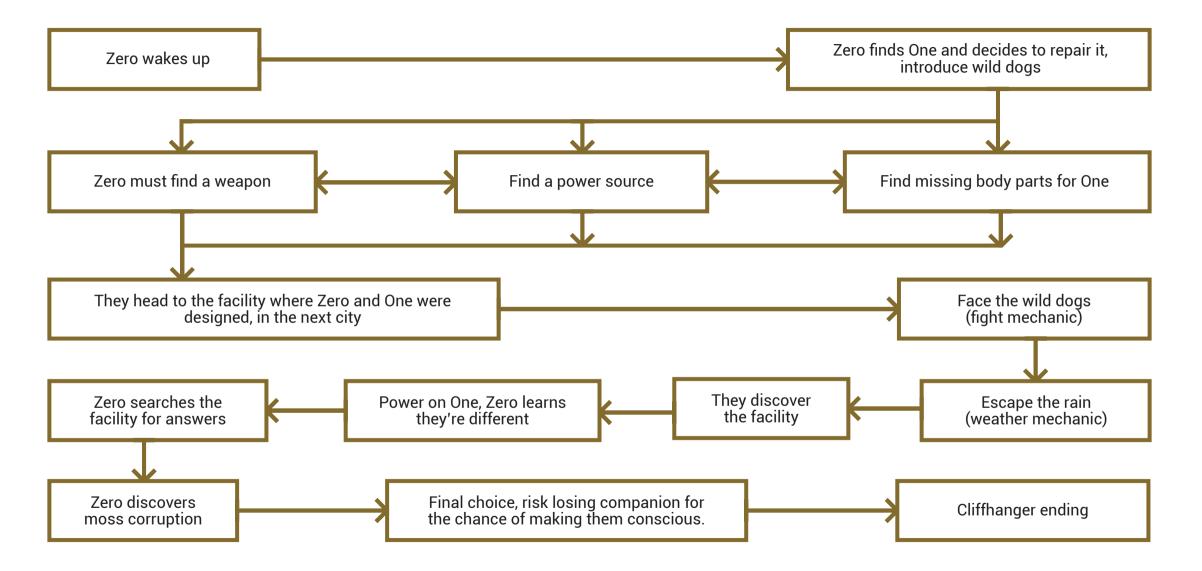
derelict hospital to find a particular part to repair One with. Along the way they may see quarantine checkpoints, national guard tents and piles of clothes, or even bones. This will all allude to the overcrowding and collapse of the hospital in the face of disease, as well as the mass death that had occurred there.

All of this is surplus to the driving narrative of the story, but is designed to offer greater depth, clarity and meaning to the world and the characters within it.



08

### **STORY FLOWCHART**



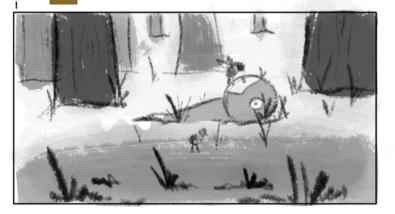
#### **Flowchart Explained**

This flowchart serves as a rough guideline to a vertical slice of a larger story. Whilst I'm confident in the characters, style and gameplay of Zero, the scope of its narrative feels relatively elastic to me, and so I've decided to focus on a heavily stripped back version, showing major plot points and suggesting at how game mechanics will be introduced.

The narrative of Zero is linear. Early on in the game there's a moment where several tasks need to be completed; in this case the player is free to do them in whichever order they like, or discover them first. For example, One needs a new power source, a new set of legs and Zero needs a weapon to protect itself from wild animals. This section of the game will take place in a miniature open world, around which will be clues as to where each of these items are located. The player could follow whichever clues they find first, or randomly explore and discover these items through common sense i.e. the legs will be in some kind of factory or assembly facility. Once they collect all the items, they will be ready to leave the mini open world and move onto the next major goal.

The intention here is to give the player the space to explore the world and the major mechanics before the pace snowballs when the threats are more immediate and unforgiving and narrative picks up speed.

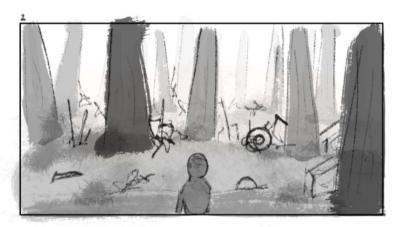
### STORYBOARD EXAMPLE



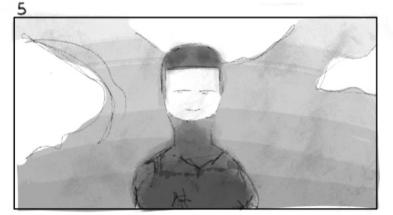
Zero is awoken by a bird pecking at it's face

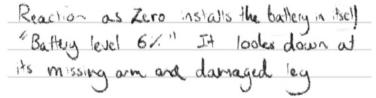


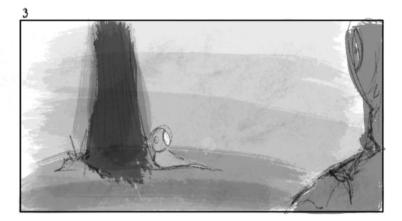
Removes the battery from the chest of the powered down One.



"Battug level critical" - It stands, finds itself in an overgrown junkyard.







Spots One, potential battery source



Zero, carrying One heads out of the overgrown junkyard

### CHARACTER DESIGN







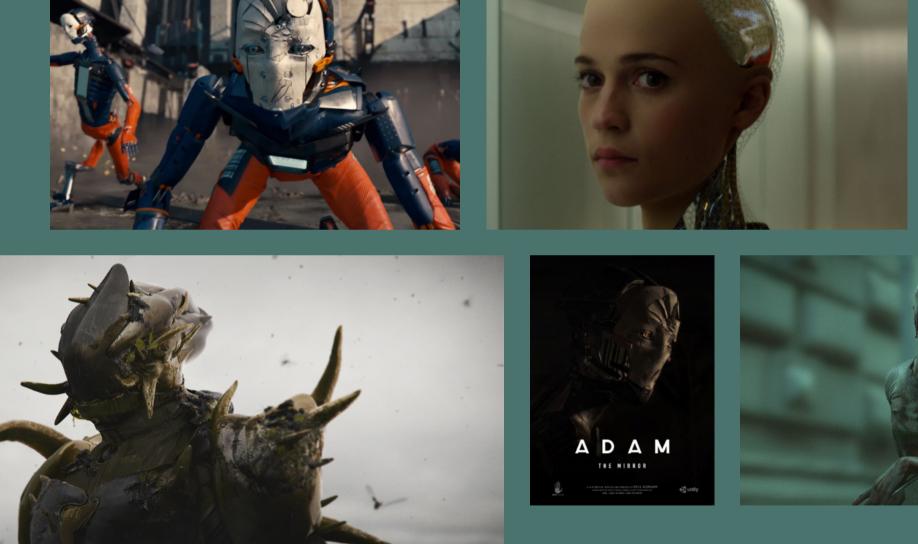






This painting by Simon Stålenhag was a major inspiration for the concept of the game. I imagined the bird waking up the robot, and the sort of the world that the robot would find itself in. What if the world was empty, what would a robot like this do, all alone in an empty world?

From a character standpoint, I loved the idea of a robot covered in moss, there's something thematically interesting about the merging of biological and artificial life in that. I want my character to feel as though they are a part of the larger world, and having the overgrowth of the world spread to the character would add to that.







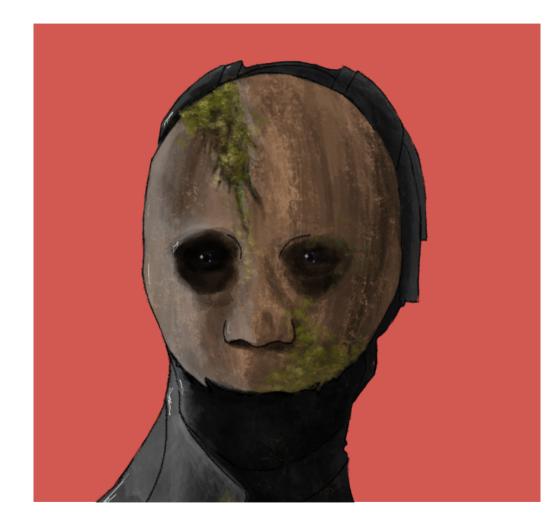
This is an early sketch of Zero, the protagonist of the game. Zero has no prior knowledge of the world it wakes up in, no memories of its origins. It must act fast, to ensure self preservation, find a power source and then begin to repair itself and One.

Zero is designed to embody childlike innocence and the human survival instinct. It will be slowly subjected to the challenges of self preservation as well as the kind of corrupting impulses that children have, like the feeling of power that comes with crushing a bug or lying to somebody.

Lord of the Flies, WALL-E, I am Legend and The Last of Us are all inspirations for Zero's arc. A child in a deeply dangerous and morally ambiguous world, Zero will have to decide how to conduct itself, and develop its own sense of right and wrong.

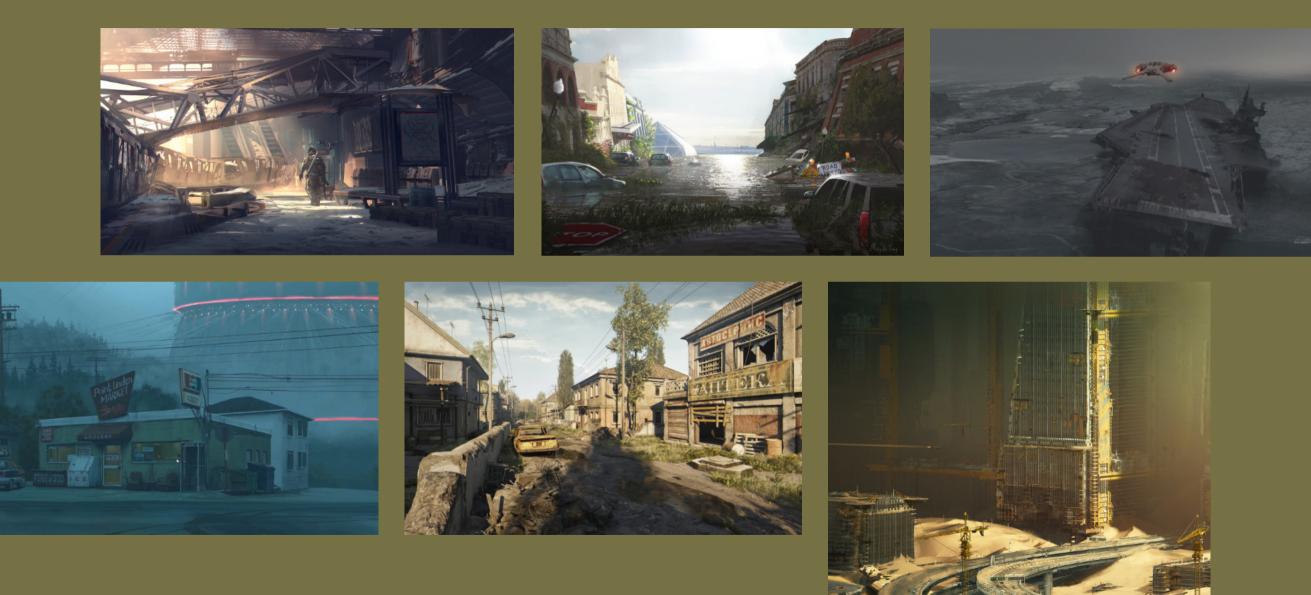
ERO ORIGINAL CONCEPT ART







## ENVIRONMENT DESIGN



Environmental storytelling is a huge part of this game, as it will be the primary way in which Zero learns about the world and its history. Written in the environment of the game will be the ways in which the human race fell and the kind of societies that existed before, during and after that fall.

22

The environment will also have a huge impact on the tone of the game, where environment and lighting design will trigger, shift and enhance the emotional beats of the story.

ROTTINGER

This image is a lighting experiment designed to show how environment and lighting will tell the story of Zero, it's an example and not directly tied to the story or its design style.

The main focal point of this image is the glowing chest, an invitation to the player; there's also the pillars in the centre of the room, in a pool of sunlight. This kind of design will guide the player who will likely pick up an item from the chest and progress to the pillars, intrigued but not actively aware of the designing hand encouraging them.

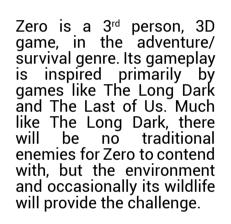
Imagine the contents of the chest are robot body parts, and the pillars a construction lab. All of the objects, logos, small signs and handwritten notes in the scene will reveal information about the intentions of whoever built this place, and thereby show both Zero and the player what sort of world preceded the extinction of the human race.

ZERO ORIGINAL CONCEPT ART USING SEED HUNTER ENVIRONMENT PACK As well as giving a wider context to the world that the story takes place in and adding atmosphere to the experience of playing the game, the environments of Zero and the interactions that take place within them will all serve to drive the plot forward.

To return to the example of the robot body parts in the chest, a lab in which they can be fitted by the pillars, and littered around, clues as to where the next part can be found.

Remembering that Zero's primary focus is to repair One, the player should have a clear goal entering this environment, looking for a specific part, and will leave having achieved that goal, and gathered new information as to where to find the next part.

### GAMEPLAY/MECHANICS



ditille and the and the

26

Acquiring and crafting major components to repair Zero and One will correspond with plot points and push the narrative forward. In between these events the player will have to keep a constant eye out for power sources to keep themselves going, as well avoid treacherous environments which may them further cause damage.



The environmental design in Death Stranding, and the challenges the player must overcome in order to traverse it, are big inspiration to the gameplay of Zero.

The timefall mechanic means that rain causes serious damage to the player and erodes their equipment. In Zero, since the main characters are robots and have already sustained significant damage, rain or water of any kind will prove a challenging obstacle. Players will have to plan alternate routes or craft protection to combat the corrosion.

A Plague Tale: Innocence is another big influence. It takes the kind of looting/ crafting/puzzle solving gameplay of The Last of Us and scales back the combat in favour of introducing a unique mechanic. Implementing a fantastical spin on the plague, player must avoid huge hordes of killer rats. The primary weapon the player has against these rats is light, so they must traverse areas littered with these rats by using fire.

In the future world of Zero, animals will have taken back a hold on the world, and pets and zoo creatures will rule abandoned cities. Zero and One will have to contend with many of these predators along their journey.

### ENGINE CHOICE

The two major engines for consideration here are Unity and Unreal, as they are the two most popular, with extensive support, regular updates and well stocked marketplaces filled with 3rd party assets and tools. The engine which I have the most experience in, and which is taught most extensively at UCA is Unity, so it seems the obvious choice. There are some compelling reasons why Unreal is a better option though.

The recent announcement of Unreal Engine 5 is a huge part of this decision, as it revealed some genuinely groundbreaking tools, that will simultaneously reduce the workload on developers and improve the quality of the finished product. I'm talking mainly here about the dynamic ray-tracing and virtual texturing features which theoretically remove the need for both lightmap and normal baking. Since UE5 isn't even entering public alpha until 2021, it won't be used on Zero, but committing to a platform that is pushing groundbreaking technology and learning the tools that they have available now seems like a good idea to me.

Lighting is both my area of expertise and a major element in the style, atmosphere and storytelling of Zero. I've been using HDRP -Unity's answer to Unreal's superior rendering and post-processing abilities - for a while now, and whilst it can produce stunning results, it's unfinished. I've experienced many crashes, glitches and bugs using HDRP and a game like Zero would need it to reach its true potential. I don't have enough experience with Unreal to say for certain that its more stable, but what I have seen suggests its highest quality rendering and post processing features have been around for longer and so are more robust, and maybe even more capable.

The final factor is code, and my lack of experience with it. Unity has promised visual scripting for several years now, but it's still not available, whereas Unreal's blueprint is a central part of the engine. As an artist with very limited C# skill, visual scripting will enable me to work faster and longer between roadblocks. For these reasons, Zero will be made in Unreal Engine.





### SELLING POINTS/AUDIENCE

Zero wakes up in an overgrown world. The humans are gone and the moss inside its circuits is driving it to build a companion.

#### Who is this game for?

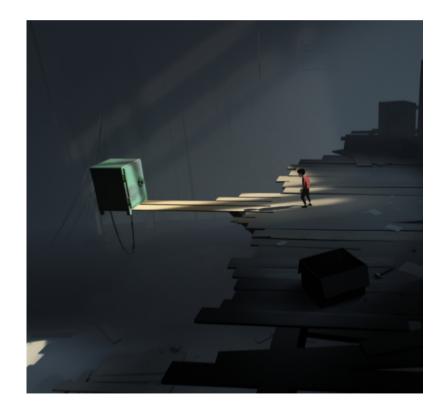
As Zero is a single-player, narrative game, it's targeted primarily at players of similar titles. Lovers of The Last of Us, God of War, Firewatch, The Walking Dead Telltale Series and Horizon Zero Dawn will find Zero to scratch the same itch as those other games.

Dark, atmospheric visuals, complex vegetation and dynamic weather cycles will define the visual style of the game. Players attracted to 2D indie's or games that emphasise vibrant colours and abstract style over realism will likely not be as

#### attracted to Zero.

As the game is in the science fiction genre, and takes a lot of its design cues from movies like Blade Runner 2049, Ex Machina and Children of Men, it will attract fans of sci-fi and those films in particular.

Whilst Zero doesn't actively explore non-binary themes, since the characters are non-human and aren't gendered in the game, it may also attract players who are opposed to stereotypical male leads.



#### What is their gender/income and what platform do they use?

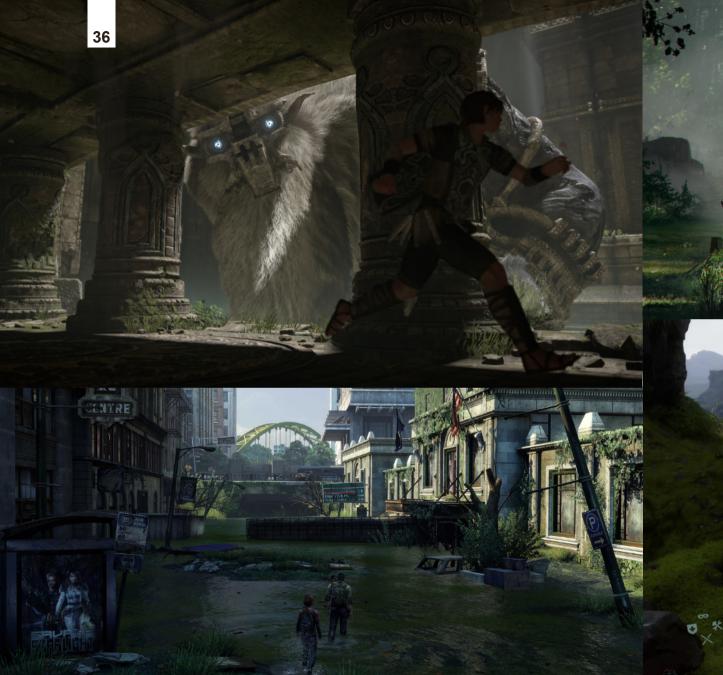


Many studies, like this one from the Global Web Index agree that smart phones rule the roost and that gaming PC's and consoles command relatively similar shares of the market, with the former edging out the latter.

Since Zero is a graphically intensive game and is designed to be played with a controller/ keyboard and mouse, it will be targeted at both PC and console players, but not players using mobile phones.

In this particular market male players outweigh females, but by relatively small margins, particularly on consoles, therefore the game will not target one gender over the other in its design or marketing.

### INSPIRATION



#### Games:

The Last of Us Death Stranding Shadow of the Colossus Nier: Automata A THOROUGH MARVEL' COLSON WHITEHEAD

ANDERMEER

37

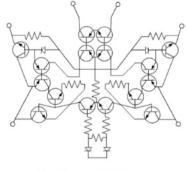
Books:

Borne

Metamorphosis of Prime Intellect

The Road

The Metamorphosis of Prime Intellect A Novel



by Roger Williams



#### Films:

Ex Machina

Moon

Blade Runner 2049

Automata

### REFERENCES

Asobo Productions. (2019). A Plague Tale: Innocence. Available at: https://www.asobostudio.com/games/plague-tale [Accessed 24/05/2020]. Averkin, A. (2020). PUBG: Abandoned Street. Available at: https://www.artstation.com/artwork/BmRmL4 [Accessed 24/05/2020]. Bagnall, R. (2019). Project Terminator Revolutions. Available at: https://www.artstation.com/artwork/4b8J38 [Accessed 24/05/2020]. Björkman, R. (2016). Upgrade Not Available. Available at: https://www.artstation.com/artwork/W8Zb3 [Accessed 24/05/2020]. Blade Runner 2049 (2017). Villeneuve, D. Sony Pictures Releasing. London. Chadeisson, P. (2019). OFF WORLD | Abandoned City. Available at: https://www.artstation.com/artwork/e04lVb [Accessed 24/05/2020]. Epic Games. (2020). A first look at Unreal Engine 5. Available at: https://www.unrealengine.com/en-US/blog/a-first-look-at-unreal-engine-5 [Accessed 24/05/2020]. Ex Machina (2014). Garland, A. Universal Pictures. London. Globalwebindex. (2020). The world of gaming. Available at: https://www.globalwebindex.com/reports/gaming-report [Accessed 24/05/2020]. Gryun, K., Intae, J., Ahn, H. S., Byjin, Yang, J., Echoic Audio. (2019). *Asymmetry Title Sequence*. Available at: https://www.behance.net/gallery/ 89402827/Asymmetry-Title-Sequence [Accessed 24/05/2020]. Guraziu, E. (2015). AlfaForma - Robotics. Available at: https://www.artstation.com/artwork/mD2Ne [Accessed 24/05/2020]. Johnsson, D. (2018). This Dude's into Metal! Available at: https://www.artstation.com/artwork/8lWzBG [Accessed 24/05/2020].

Jokinen, J. (2019). Love Death & Robots - THREE ROBOTS. Available at: https://www.artstation.com/artwork/Z5R4gw [Accessed 24/05/2020].

Kojima Productions. (2019). *Death Stranding.* Available at: https://www.playstation.com/en-gb/games/death-stranding-ps4/ [Accessed 24/05/2020].

Litvishkov, A. (2020). Encounter. Available at: https://www.artstation.com/artwork/aR5B4z [Accessed 25/05/2020].

McCarthy, C. (2006). The Road. New York City, NY. Alfred A. Knopf.

Minasian, H. (2016). Subway Station. Available at: https://www.artstation.com/artwork/4EPRW [Accessed 24/05/2020].

Naughty Dog. (2014). The Last of Us. Available at: https://www.thelastofus.playstation.com/ [Accessed 24/05/2020].

Platinum Games. (2016). Nier: Automata. Available at: https://nier.square-enix-games.com/en-gb/home/ [Accessed: 04/02/2020].

Playdead. (2016). Inside. Available at: https://playdead.com/games/inside/ [Accessed 04/02/2020].

Polygonautic. (2019). Seed Hunter. Available at: https://assetstore.unity.com/packages/3d/environments/seed-hunter-143414 [Accessed 04/02/2020].

Rottinger, B. (2017). Overgrown. Available at: https://www.artstation.com/artwork/8owlw [Accessed 24/05/2020].

Scarlet, T. (2019). Rogue One, K2SO Damaged State. Available at: https://www.artstation.com/artwork/6anZPw [Accessed 24/05/2020].

Sowig, L. (2018). The Sirens - Infected. Available at: https://www.artstation.com/artwork/J1d2a [Accessed 24/05/2020].

Stålenhag, S. (unknown). On the activities of primates and passerines. Available at: https://www.redbubble.com/i/metal-print/On-the-activities-of-primates-and-passerines-by-simonstalenhag/12207126.0JXQP [Accessed 24/05/2020].

Stålenhag, S. (2017). *No wifi in this town.* Available at: https://twitter.com/simonstalenhag/status/919945764658348032/photo/1 [Accessed 24/05/2020].

Tamnev, P. (2016). Adam Character Work. Available at: https://www.artstation.com/artwork/3e1eJ [Accessed 24/05/2020].

Team Ico. (2017). Shadow of the Colossus. Available at: https://www.playstation.com/en-us/games/shadow-of-the-colossus-ps4/ [Accessed 24/05/2020].

Thorpe, A. (2018). EDIFICE. Available at: https://www.behance.net/gallery/61697667/EDIFICE [Accessed 24/05/2020].

Thorpe, A. (2017). WAR FOR THE PLANET OF THE APES. Available at: https://www.behance.net/gallery/55423811/WAR-FOR-THE-PLANET-OF-THE-APES [Accessed 24/05/2020].

Thorpe, A. (2018). *PROJECT 2501 : HOMAGE TO GHOST IN THE SHELL*. Available at: https://www.behance.net/gallery/17250535/PROJECT-2501-HOMAGE-TO-GHOST-IN-THE-SHELL [Accessed 24/05/2020].

Tong, M. (2018). Abandoned Fero. Available at: https://www.artstation.com/artwork/k6r86 [Accessed 24/05/2020].

Williams, R. (2002). The Metamorphosis of Prime Intellect. Available at: http://localroger.com/prime-intellect/ [Accessed 24/05/2020].

Vandermeer, J. (2017). Borne. Available at: https://www.jeffvandermeer.com/book/borne/ [Accessed 24/05/2020].

Zaragoza, G. (2018). Zombie. Available at: https://www.artstation.com/artwork/gJJYEm [Accessed 24/05/2020].

