

# Valley of the Cyborgs

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A posthuman re-imagining of the Surrealist representation of the female form

**Varina Sydow**

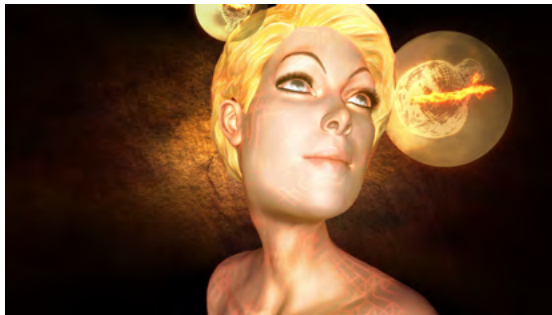
**MA&D**

2016

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**Varina Sydow**

An exegesis submitted to the Auckland University of Technology  
in partial fulfilment of the requirements for the degree of Master of Art and Design (MA&D)

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## ABSTRACT

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This digital animation project responds to the representation of the female form presented as a passive, entrapped entity in the *Mannequin Street* installation from the 1938 *International Surrealism Exposition* in Paris.

Donna Haraway's *A Cyborg Manifesto* offers a Feminist posthuman vision of disrupting traditional dualities of man and machine, woman and nature, body and mind as a means of transcending the limitations of the human body or prejudicial restrictions imposed by society. By reconfiguring the mannequin as the boundary crossing cyborg this project offers an alternative depiction of the female figure free to move in a virtual digital space, given agency by being animated.

The mannequin is inhuman yet human, the 3D human character model is animate, yet inanimate - both are uncanny. Aspects of the Uncanny Valley phenomenon are explored through the incorporation of Adobe Fuse 'ready-made' 3D human models and animations. The effect of the uncanny has been deliberately heightened in the presentation of the characters and their movements as well as by incorporating the flaws in human-like representation and behaviour that current limitations of the software generate.

How can the digital ready-made be customised through evidence of the artist's hand to offer an alternate vision of female empowerment rather than subjugation?

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### **ATTESTATION OF AUTHORSHIP**

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I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institute of higher learning.



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Thanks to Karen Bates, my sister Astrid, my aunt Felicity and to family and friends for their support.

### **INTELLECTUAL PROPERTY RIGHTS**

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I retain copyright over all works generated by me as the artist.

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## INTRODUCTION

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*“On the globe of the eye slips the Noble Mannequin in a Milky Way dress. Her antennae and her dreams will carry her straight to man’s innermost secret.”<sup>1</sup>*

– René Crevel

The mannequin held a particular fascination for the Surrealist artists, culminating in the installation *Mannequin Street*, at the 1938 Surrealism Exposition in Paris. Artists who participated included prominent members of the surrealist art circle, Salvador Dali, Marcel Duchamp and Man Ray.

This project undertakes to re-imagine this early installation artwork as digital media, animating the mannequins offers them agency, beginning with the simple act of returning the gaze, rather than just being looked at, enabling them to become active rather than passive. Haraway’s *A Cyborg Manifesto* offers a Feminist framework with which to present an alternative reading of the mannequin as a cyborg.

The use of electricity in some of the mannequins in the installation was my starting point for reinterpreting the mannequin as the

cyborg but further research led to the realization that the uncanny nature of both is their strongest connection.

Advances in the 3D animation of human characters is making this software more readily accessible and user friendly, so there is continuing interest in the life-like representation of the human in digital media, by creating characters that fully embody their uncanniness this project aims to add to this knowledge.

Depictions of the female cyborg are still created predominantly by men; this project contributes to an alternative envisioning of the digital female by women artists.

This exegesis outlines the creative process undertaken to create *Valley of the Cyborgs*, beginning by positioning the researcher. The Contextual Review discusses the role of the cyborg, both its significance and its representation. The cyborg is then placed within theories of the uncanny, from studies beginning in psychology through to robotics and 3D Animation. Depiction of the female form is also considered, in both analogue and digital media. A detailed analysis of *Mannequin Street* has been undertaken to contextualize it within relevant social and political frameworks and to demonstrate its relationship to both historical and contemporary artworks. The methodology of the project is then reviewed with analysis of the process undertaken to create the initial tests and final animations. Concluding reflections on the work are then presented.

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<sup>1</sup> (Ades, Richardson, and Fijałkowski 2015), 45

CHAPTER 1

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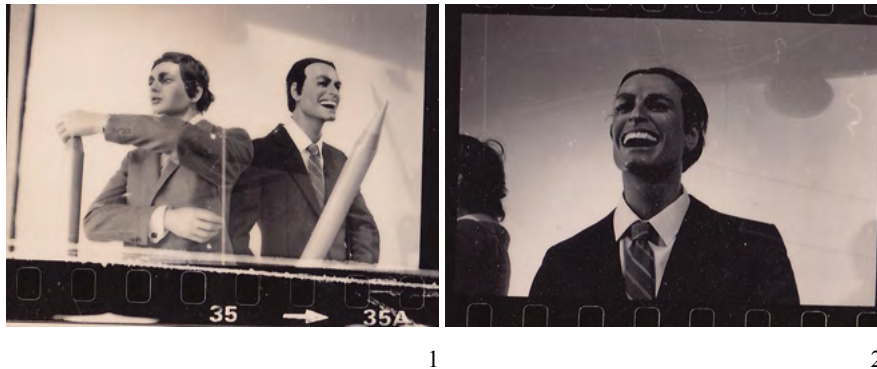
## **POSITIONING THE RESEARCHER**



## POSITIONING THE RESEARCHER

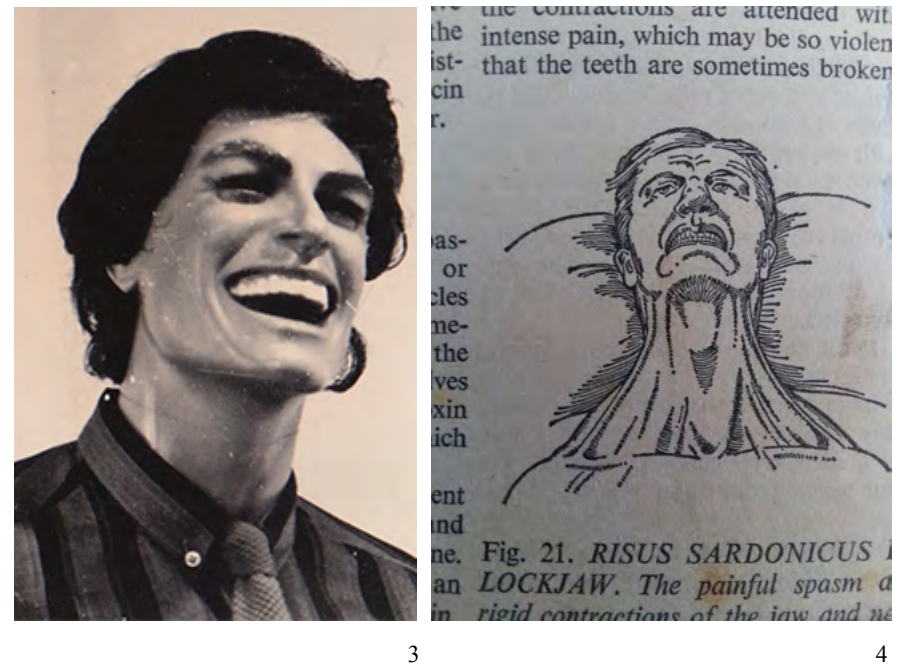
My first experiments with animation were with scratch film;<sup>1</sup> for my undergraduate Fine Arts Degree at the Ilam School of Fine Arts in Christchurch. I incorporated this technique into the music video I made for The Jean Paul Sartre Experience, *I Like Rain*, 1987. In the clip I added lo-fi “special effects” of rain and lightning as well as gestural marks and text by scratching on the film. So from an early stage I have always been interested in where the human gesture combines with technology, in my commercial animation work I have incorporated hand drawn elements, originally on paper and scanned under the camera, now entirely digital.

After graduating from Art School, I began working as a graphic designer in broadcast television and I am still creating motion graphics.



<sup>1</sup> The film is drawn on directly by scratching the emulsion, a technique pioneered by fellow New Zealander, Len Lye.

My interest in the uncanny nature of the mannequin can also be traced to my undergraduate study. I took photos of some rather odd mannequins that were on display in the windows of the Farmers department store. Their shabbiness emphasised their artificiality and the uncanniest mannequins wore a gigantic open-mouthed grin more reminiscent of a deathly grimace. Disturbingly they reminded me of an illustration from a medical dictionary of a man suffering from Tetanus (lockjaw) that terrified my sister and me as children. He is frozen unable to escape his torment - alive but only just.



Figures 1 - 3. Mannequins, Christchurch 1984

Figure 4. Lockjaw illustration. Photograph by Astrid Sydow, 2016.



5

In the devastating 2011 earthquake, the Farmers building was destroyed. When I took these photos I lived in the city centre nearby the store and walked past it many times. So many of the city's landmarks are now gone; yet these vistas live on in my memory. I no longer live there, but still visit and see the city changing; however the ruins of the present still fade in the face of the power of the intact past. Many buildings were deemed too unsafe to enter again and one of my most persistent memories is of mannequins swinging in the breeze blowing through the smashed windows of a fashion shop, a reminder of the human lives lost that day.



6



7

Figure 5. Mannequin, Christchurch 1984

Figure 6. Mannequins at Plume, Tuam St, Christchurch 2011.  
Photograph by The National Business Review.  
<https://www.nbr.co.nz/article/success-inside-christchurchs-red-zone-ch-92519>

Figure 7. Manchester Street Mannequin, Christchurch April 21, 2013.  
Photograph by M. Sullivan, Christchurch Daily Photo.





8



9

When I visited Los Angeles in 1995 I again photographed mannequins, including the windows of Fredericks of Hollywood (no longer in its heyday), but the uncanniest arrangement I photographed was of wigs. The relentless stare of the head in the foreground is disturbing, he looks as though he has just witnessed a scene as uncanny as the one he participates in.

Figures 8-10. Mannequins, Los Angeles 1995

Otto Rank describes the double as ‘an energetic denial of the power of death’<sup>2</sup> initially representative of the immortal soul, the uncanny nature of the double can also be ascribed to its alternate role as a harbinger of death.

The fascination of the mannequin for me is the space this human double inhabits between the animate and inanimate, between life and death.



10

2

(Freud, McLintock, and Haughton 2003), 142

**CONTEXTUAL REVIEW**

## CONTEXTUAL REVIEW

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### A CYBORG MANIFESTO

Haraway's cyborg (cybernetic organism) blurs the boundaries prescribed by traditional patriarchal capitalist agendas. She offers three key areas of boundary breakdown between human and non-humans: firstly of human and animal, secondly of beings (human and animal) and machine, and finally (as a subset of the latter) the breakdown of the division between the physical and the non-physical.

The cyborg offers an alternate vision to traditional concepts of dualities, to disintegrate boundaries of mind and body, of woman and nature opposing man and machine. Haraway offered a new feminist vision of female empowerment. Rather than aligning women solely to the organic natural world she proposes the cyborg as a means of short-circuiting not only the prejudicial limitations of gender in society but also of race and class.

Her latest research will culminate in a new book in 2016, *Staying with the Trouble: Making Kin in the Chtulucene Age*. She proposes a new term for our times, "Chtulucene" where human, animal and non-human are linked by "tentacular practices" in the past, present and future harking back to such mythological entities as Gaia and Tangaroa.

*"I am a compost-ist, not a posthuman-ist: we are all compost, not posthuman."*<sup>3</sup>

- Donna Haraway

Reflecting on her earlier manifesto, she notes the etymology of 'human' lies in *humus*, connecting us to soil, and the Earth.<sup>4</sup> She contends that the survival of everybody and everything rests on humans "making kin" with all inhabitants of our planet, not just humans. The boundary crossing cyborg continues to inform her inclusive vision of the organic and inorganic.<sup>5</sup> These alliances are necessary for all kin to navigate survival in an environment damaged by the commodification of natural resources.

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3 (D. Haraway 2015), 161

4 (D. J. Haraway and Wolfe 2016), 261

5 "The cyborg keeps making me remember the necessity of including - without assuming collapse into each other - the organic, the technical, the human and nonhuman" (D. J. Haraway and Wolfe 2016), 262

## THE DIGITAL FEMALE

“We bought a virgin”<sup>6</sup> declared French artists Pierre Huyghe and Philippe Parreno in their collaboration *No Ghost, Just a Shell*,<sup>7</sup> 1999-2002, for which they purchased an Anime character that they named Annlee from a Japanese Manga company. This character was then distributed to other artists to incorporate into their work. Freeing Annlee from a more likely fate of being used for advertising, all copyright of the artists’ work was signed over to her in 2002 and a ceremonial funeral for her was conducted. Digital ready-made Annlee’s freedom was short-lived; her creators have the final control of her fate as in *Mannequin Street*.



Figures 11-12. Pierre Huyghe and Philippe Parreno, *No Ghost, Just a Shell*. 1999-2002

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6 (Wolff 2011) (‘Issue 4 | 2011’ 2016)

7 References the cult Japanese Manga Comic and Anime film *Ghost in the Shell*, 1995 by Mamoru Oshii about a female cyborg.

Examples of objectification and subjugation of the female form are disappointingly plentiful in the digital realm, the feminist cyborg offers a future yet to be realised.

In her extensive study *Transhumanist Visuality: A Critical Iconology of the Technohuman Condition*, Gudrun Frommherz analysed six hundred transhumanist images from the public domain. From the data gathered, the “typical” cyborg image is presented as a singular, young, white individual most likely to be gendered female, closely followed by an androgynous male.<sup>8</sup> The vast majority of the female cyborgs conformed to current perceptions of female beauty,<sup>9</sup> despite their mechanical componentry. A third of the cyborg images in the study were erotic, the majority female. The erotic female cyborg was significantly more likely to be fragmented or entrapped and was immobilized in almost 85% of the images.<sup>10</sup> The female body was commonly nude and entangled or controlled by wires like a puppet, or restrained within machinery.<sup>11</sup>

The soft female flesh encased in the unyielding, sleek surfaces of technology enhances the sensual appeal of both body and machine.

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8 (Frommherz 2016), 113

9 “A slender figure, well proportioned forms, balanced expressions and a generally pleasing appearance.” Ibid., 131

10 Ibid., 144

11 Ibid., 145

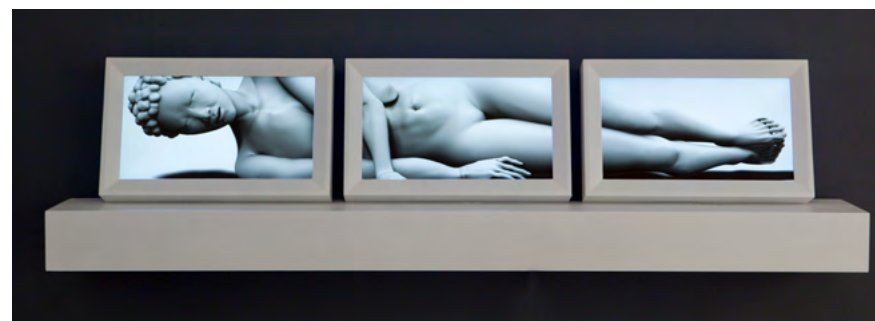


13

In his 2015 film *Ex Machina*, director Alex Garland incorporated curvaceous design elements of 1970s sports cars into the aesthetic of the female robot. Her mission is to pass the Turing test, so Garland wanted to create a more organic robot both in look and sound, so the audience would see her “humanity.”<sup>12</sup> The curves that encase her however are still made of metal.

12 (Lee 2015)

Claudia Hart offers an alternative vision of the entrapped digital female in *Caress*, 2011. A voluptuous nude 3D animated woman is seen in repose across three video screens, the frames of boxes around the screen representing a frame or a coffin, but here the restraint brings her closer to the camera, which caresses her, uniting the observer and the observed.<sup>13</sup>



14

Hart points out that the advances in the 3D software she employs have their roots in technology for the military. She further traces connections from the military to the early monastic beginnings of the Christian Church, a history she argues contributes to misogynistic representations of the virtual female today.<sup>14</sup>

Figure 13. *Ex Machina*, promotional poster. 2015

Figure 14. Claudia Hart, *Caress*. Video object, 2011. HD quicktime video, custom wood box, shelf, computer. (IMAGE USED BY PERMISSION OF THE ARTIST.)

13 (‘Claudia Hart’ 2016)

14 (‘Claudia Hart’ 2016)

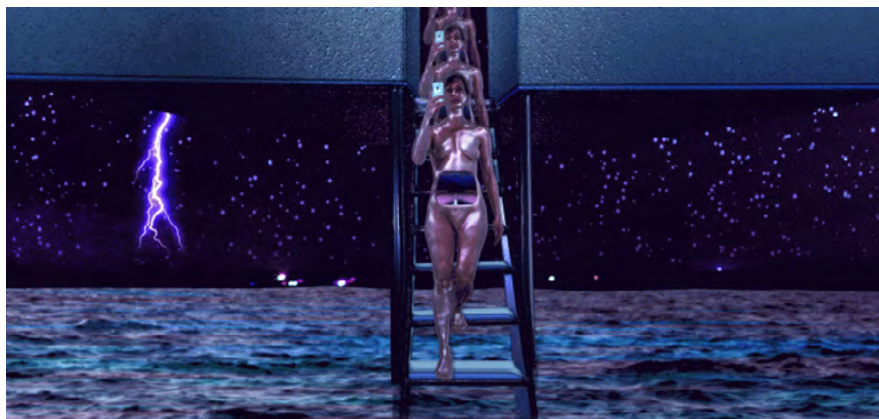


Figure 15. Carla Gannis, *Nude Descending a Staircase* [Video still], 4K video, 3.37, 2015 (IMAGE USED BY PERMISSION OF THE ARTIST.)

Carla Gannis uses the selfie as a starting point to explore her own identity in her exhibition *A Subject Self-Defined*, 2016.<sup>15</sup> In the video *Nude Descending a Staircase*, her body is presented as uncanny. Multiple versions of her digital body endlessly descend a staircase but never reach the water below, the body is nude, the texture metallic. Her eyes are firmly focused on the camera in her hand, not on the lightning both behind her and within the video screen that covers her stomach, a virtual womb.

<sup>15</sup> Drawings were made from 52 weeks worth of selfies that were then recreated in 15 large 4K video loops (but with a lo-fi gif aesthetic) and also an augmented reality project.

## THE UNCANNY

In his 1906 essay *On the Psychology of the Uncanny*, Ernst Jentsch describes “doubt as to whether an apparently animate object really is alive and, conversely, whether a lifeless object might not perhaps be animate”<sup>16</sup> as being central to uncanniness. Citing the waxwork, a lifelike and often life-sized representation of a human, yet utterly motionless as an example. More recent advances in robotics and 3D animation have exponentially created opportunities for uncanny experiences of human simulacrum, but the waxwork continues to fascinate.<sup>17</sup>

In E.T.A. Hoffman’s short story *The Sandman*, Nathaniel becomes besotted with the automaton Olympia, neglecting his fiancée Clara; his obsession for the inanimate contributes to his madness and ultimate demise.

Jentsch also notes the amplification of the effect of the uncanny if encountered in a darkened environment; the life-size mannequins on display in *Mannequin Street* are displayed in a dimly lit space, intensifying their eeriness.

<sup>16</sup> (Jentsch 1997), 11

<sup>17</sup> The recent marital breakdown of the famous actors Angelina Jolie and Brad Pitt resulted in Madame Tussauds swiftly separating their waxwork replicas, now placed at “a respectful distance from each other”. Despite the fact these inanimate objects have no means of experiencing feelings, the visitors are still likely to find the presence of the waxworks together inappropriate due to the uncanny resemblance to their human counterparts. (‘Madame Tussauds Perform Absolutely Perfect PR Move’ 2016)



Building on Jentsch's work Sigmund Freud specifies in his 1919 essay *The Uncanny* that the fear provoked by the uncanny requires two opposing feelings to be present: *unheimlich* (unhomely) and *heimlich* (homely or familiar). The familiar here meaning a return of the repressed, of unexpected revelations of feelings we wish to hide consciously or subconsciously. The elemental meaning of home is to be found in a symbolic return to the mother's womb.

Freud offers this personal experience:

*"Strolling one hot summer afternoon through the empty and to me unfamiliar streets of a small Italian town, I found myself in a district about whose character I could not long remain in doubt. Only heavily made-up women were to be seen at the windows of the little houses, and I hastily left the narrow street at the next turning. However, after wandering about for some time without asking the way, I suddenly found myself back in the same street, where my presence began to attract attention. Once more I hurried away, only to return there again by a different route. I was now seized by a feeling that I can only describe as uncanny."*<sup>18</sup>

Freud would have been concerned that being seen in this unseemly location again and again would damage his professional reputation.

Freud further discusses *The Sandman* as an example of the uncanny

focusing on the character of the title, this frightening nocturnal figure is said to throw sand in the eyes of naughty children, causing their bleeding eyes to jump out of their heads to be gathered up by the Sandman for his ravenous children to peck at with their owl-like beaks. For Freud, loss of sight represents castration anxiety.

## THE MANNEQUIN AND THE RUIN

Hal Foster contends that the Surrealist fascination with the uncanny<sup>19</sup> is inevitably entwined with the death drive. In André Breton's *Surrealism Manifesto*, the romantic ruin and the modern mannequin are offered as prime examples of the marvellous, both combine two opposing states rendering them uncanny, the mannequin inhuman yet human, the ruin natural yet historical or outmoded.



Figure 16. Ruins, Montpellier, 1991

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18 (Freud, McLintock, and Haughton 2003), 144

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19 The Uncanny was only translated into French in 1933. (Foster 1997), 13

Walter Benjamin describes them as ‘residues of a dream world’,<sup>20</sup> for the Surrealists dreams were a means of accessing the subconscious bringing forth the repressed to generate works of art.

The 1920s and 30s were a time of rapid modernization including the advent of electricity, heightening the recognition of the outmoded, and conversely creating a renewed appreciation for the handmade.

Benjamin reflecting on the new-found means of replicating artworks concludes that a work of art holds an aura, specific to its ‘unique existence in a particular place,’<sup>21</sup> that is dissipated when the artwork is reproduced. No matter how technically convincing, it loses its quintessential authenticity. In the installation *Mannequin Street*, the artist’s visible hand has imbued a capitalist commodity with an aura that the photographs of them do not retain.

## THE UNCANNY MANNEQUIN

In 1937 Life magazine published a story about the latest celebrity Cynthia the mannequin.<sup>22</sup> Lester Gaba, her creator, squired Cynthia about town causing a sensation; she quickly became a staple of

20 (Foster 1997), 163

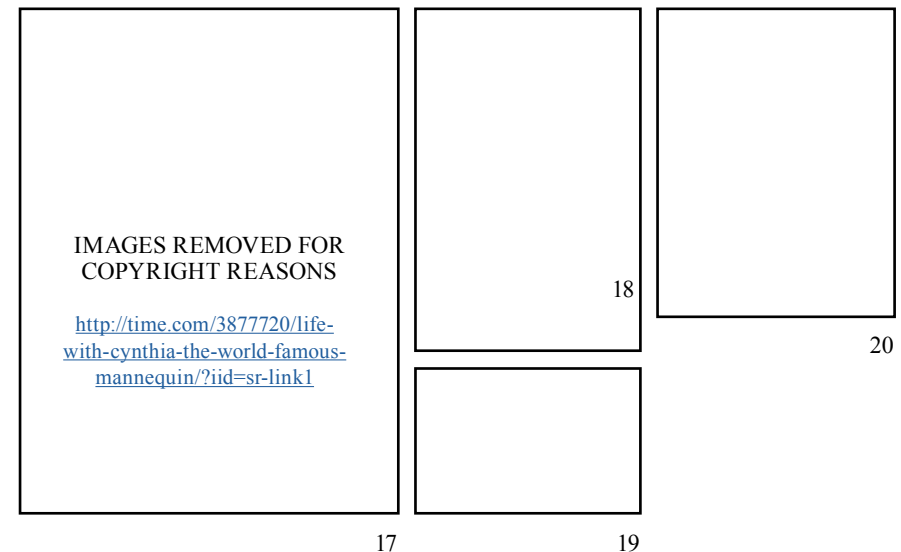
21 (Benjamin et al. 2008), 21

22 A breakthrough in the manufacture of fashion mannequins for shop windows; she was made of plaster instead of wax which tended to melt in the hot sun. Gaba individualised his mannequins by adding freckles and creating variation in the limbs, Cynthia’s feet are slightly different sizes. (Cosgrove 2013)

gossip columns and was seen at all the hot spots. She became engaged to a radio star, was sent jewellery from Cartier and Tiffany, invited to the Duke of Windsor’s wedding, had a box seat at the Metropolitan Opera, starred in a Hollywood movie, *Artists and Models Abroad* and even a hosted a radio talk show.

All this despite not being able to speak a word. By enabling the wishes and desires of others to be projected upon her Cynthia’s silence may have been the secret to her success.

At a visit to the hair salon Cynthia shattered when she fell on the floor, her “death” was reported in the press.



Figures 17 - 20. Cynthia and Lester Gaba in New York, Life magazine 1937

## THE UNCANNY ROBOT

An ongoing both technical and aesthetic challenge of human representation in 3D animation is the uncanny valley phenomenon. First recognized by Masahiro Mori in robotics in 1970, he created a graph that charts the affinity levels of human response to robots. Affinity is neutral towards mechanical robots; it then rises as they become more human-like in appearance. The more human both the appearance and movement of the robot are the higher our expectations become. If their demeanour is unusual or unconvincing the encounter may become unsettling. The resulting unease or even revulsion causes a sudden drop in affinity, or the uncanny valley.

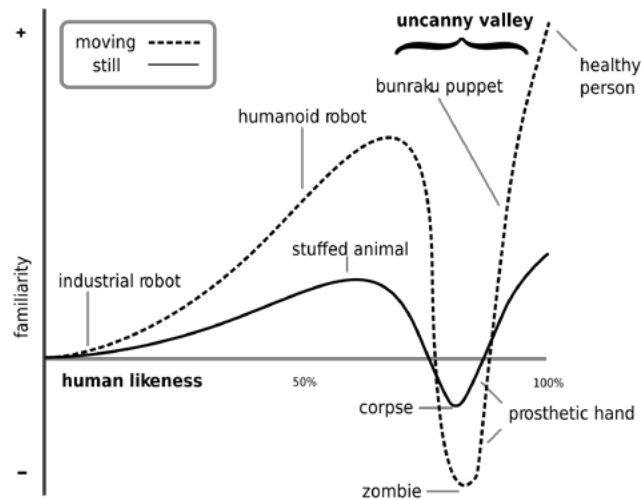


Figure 21. Uncanny valley graph by Masahiro Mori  
Copyrighted work available under Creative Commons licence Attribution-ShareAlike  
CC BY-SA 3.0

<https://creativecommons.org/licenses/by-sa/3.0/deed.en>

In the exhibition *Android: What is Human?*,<sup>23</sup> at Miraikan, Tokyo three humanoid robots are on display and the public are able to interact with them.<sup>24</sup>

Their creator Hiroshi Ishiguro has also made a robotic version of himself, envisaging a future where his doppelgänger could give a lecture in another city in Japan, or attend a conference overseas. Ishiguro points out that the Shinto religion doesn't distinguish between humans and things, that everything has a soul, a belief system more open to accepting humanoid robots.<sup>25</sup>



Figure 22. *Kodomoroid*

23 ('*Android: What Is Human?*' The National Museum of Emerging Science and Innovation (Miraikan)' 2016)

24 *Otonaroid* - female adult science communicator, can be both spoken to and operated by the visitors to speak to others.

*Kodomoroid* - female child news presenter.

*Telenoid* - the size of a small child that visitors can pick up, designed with the minimal human elements required for interaction.

25 ('The Man Building Robots to Better Understand Humans' 2016)

23

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<http://www.geminoid.jp/en/robots.html>

24

Figure 23. *Otonaroid*

Figure 24. *Telenoid*

Figure 25. Hiroshi Ishiguro

25

In *Comfortable and Alive*, 2014,<sup>26</sup> Elena Knox comments on the passive role of female service robots. Geminoid F's voice is soothing as she reads generic hypnosis scripts sourced online. The balance of power shifts as the submissive digital assistant takes control of the viewer's state of mind and of the situation.



Figure 26. Elena Knox, *Comfortable and Alive* [video still], single channel video and stereo sound (6 languages), 3:22, 2014.  
(IMAGE USED BY PERMISSION OF THE ARTIST.)

<sup>26</sup> Each of the six screens feature the same vision and is supplied with a set of headphones through which is heard the robotic voice in one of six different languages. Geminoid F developed by Osaka University and ATR Hiroshi Ishiguro Laboratories.

## THE UNCANNY VALLEY IN 3D ANIMATION

“I think every game out there right now has an uncanny valley problem”<sup>27</sup> concedes Mark Daly, senior director of content development at NVIDIA.

Angela Tinwell studied the responses to the six basic emotions (anger, disgust, fear, happiness, sadness and surprise) displayed by both a human actor and a 3D character. The representation of fear by the 3D character with lack of upper facial movement was considered to be the uncanniest.<sup>28</sup>

An essential survival technique that crosses all language barriers is our ability to subconsciously track and read the expressions of others as a means to anticipate what they may do next, in case a fight or flight response is needed. Lack of facial expression, especially in the upper facial region is perceived as uncanny, as it undermines our ability to perceive a potential threat.

Consciously presented emotions can be undermined by uncontrollable nonverbal communication (NVC),<sup>29</sup> and if emotions

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27 (Tinwell 2015), 193

28 Fear requires much smaller movements of the forehead compared to the other emotions, participants noted its similarity to a corpse and we also subconsciously recognize that the fear of others may also give us cause to be afraid. (Tinwell 2015), 83

29 For example a lowered brow that signals disappointment may betray a contest loser presenting a gracious smile in defeat.

presented to us don’t match our expectations they can be perceived as false. The movement around the eyes or the wrinkling of crow’s feet signals to us a genuine smile. Enhancement of the beauty of female characters with perfectly smooth skin comes at the expense of our ability to empathise with them. The 2013 *Galaxy Chauffeur* commercial features a CG (computer-generated) face composited on the body of an actress “to bring the benchmark of beauty, Audrey Hepburn, back to the screen.”<sup>30</sup> Despite the technical excellence of her depiction the lack of expression in her upper face does not match her smile; perhaps she is not happy at all.<sup>31</sup>



Figure 27. *Galaxy Chauffeur* commercial, 2013

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30 (Tinwell 2015), 94

31 Similar effects can result from the cosmetic application of Botox, lessening not just the visibility of wrinkles but also emotion. A beauty commentator notes “All my Botoxed friends look faintly angry, with a touch of indifference.”(Cole 2013)

Tinwell contends, “uncanniness occurs due to a perception of a lack of empathy *in a character toward us*”<sup>32</sup> and likens this behaviour to that of the psychopath, unable to forge attachment to others. Their lack of emotional responsiveness engenders fear in us, as their intentions are unpredictable, so potentially dangerous.

## THE NEW WOMAN

In the 1920s and 30s identity was perceived as under threat in both progressive and conservative circles. Anxieties were expressed about the “new woman” who challenged the social conventions of the time and was not so easy to categorize; as with the cyborg she is a boundary disruptor.

A commentator from 1934 voices his concerns:

*“It has become very difficult to differentiate at first sight an honest woman or a pure young girl from a whore . . . All women, from the adolescent to the grandmother are moulded according to the same model: they wear lipstick and powder their faces, have pearly eyelids, long black lashes, painted nails, platinum or red hair . . .; they all smoke, drink cocktails, loiter at dancing halls, drive cars. . . how can we place them? Which is the marquise, the wife of the wealthy industrialist? Or simply the woman of easy virtue?”*<sup>33</sup>

*La garçonne* (the bachelor girl) was seen as a threat to masculine identity by taking control of the choice of her sexual partner, along with her desire for financial independence through her attempts to infiltrate the male realm of paid work. Women in France were not given the vote until 1945 after World War II challenged gender roles far more dramatically than the “new woman” ever could.

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32 (Tinwell 2015), 102

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33 Prior to World War I, “respectable” women wore minimal, naturalistic make-up but in the 1920s a wide range of new make-up products were developed and became accessible to all “models” of women. (Evans 1999), 19

## MANNEQUIN STREET

*“In 1938 nineteen nude young women were kidnapped from the windows of the Grands Magasins and subjected to the frenzy of the Surrealists who immediately deemed it their duty to violate them, each in his own original and inimitable manner but without any consideration for the feelings of the victims who nevertheless submitted with charming good will to the homage and outrage that were inflicted on them, with the result that they aroused the excitement of a certain Man Ray who undid and took out his equipment and recorded the orgy.”*<sup>34</sup>

– Man Ray

### Overview

To enter the main area of the 1938 *Surrealism Exposition* in Paris visitors had to pass through *Mannequin Street* viewing eye to eye along the way sixteen mannequins placed at 2 metre intervals all but one “dressed” by men. The mannequins stood in front of street signs bearing either genuine Parisian or fictional street names, emphasizing the streetwalker associations.

This is an early example of installation art. After the Exposition *Mannequin Street* was dismantled and all that remains are the black

and white photographs.<sup>35</sup> Most are singular portraits; there are few group shots due the nature of the narrow space but also due to the attraction of the one to one encounter with the simulacrum.

A close analysis of all sixteen mannequins was undertaken by drawing from these photographs to experiment with methods of empowerment through their representation and possibilities of escape through animation. From these tests three were chosen to advance further. The Man Ray and Duchamp mannequins were suggestive of a wireless cyborg to incorporate energy as a means of enlivenment, unrestrained by wires. Tears can be experienced from joy as well as sorrow; the Ray mannequin offered the exploration of the interplay of these two opposing emotions and their relationship to entrapment and release. The Duchamp mannequin presented the opportunity to explore notions of gender, the artifice of playing a male yet unmistakably female. Could she be re-imagined as the flâneuse<sup>36</sup> to embolden her to return the gaze, not just be seen? After drawing the Dali mannequin I regarded her as a warrior, a feminist protester to explore anger versus passivity, the victim re-imagined as the challenger.

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<sup>35</sup> In 1966 Man Ray published *Resurrection des Mannequins* a limited edition book of 15 of the photographs he had taken of *Mannequin Street*.

<sup>36</sup> “Rather than wandering aimlessly, like her male counterpart, the female flâneur has an element of transgression: she goes where she’s not supposed to.” (Elkin 2016)

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<sup>34</sup> (Wood 2007), 26



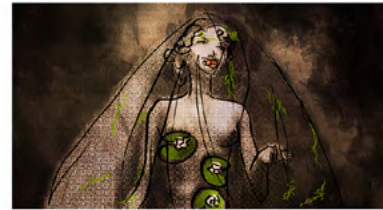
THE MANNEQUINS WERE DISPLAYED IN THE FOLLOWING ORDER:



1. Jean Arp



2. Yves Tanguy



3. Sonia Mossé



4. Marcel Duchamp



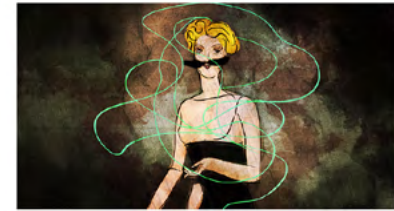
5. André Masson



6. Kurt Seligmann



7. Max Ernst



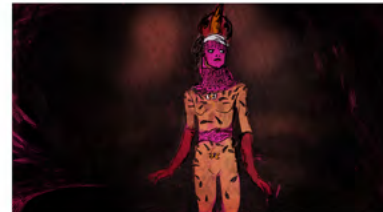
8. Joan Miro



9. Augustin Espinoza



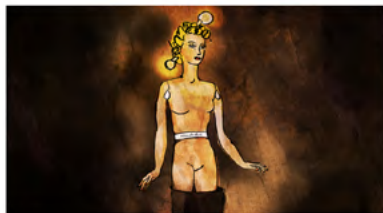
10. Wolfgang Paalen



11. Salvador Dali



12. Maurice Henry



13. Man Ray



14. Oscar Dominguez



15. Léo Malet



16. Marcel Jean

Figure 28. *Mannequin Street* illustrations



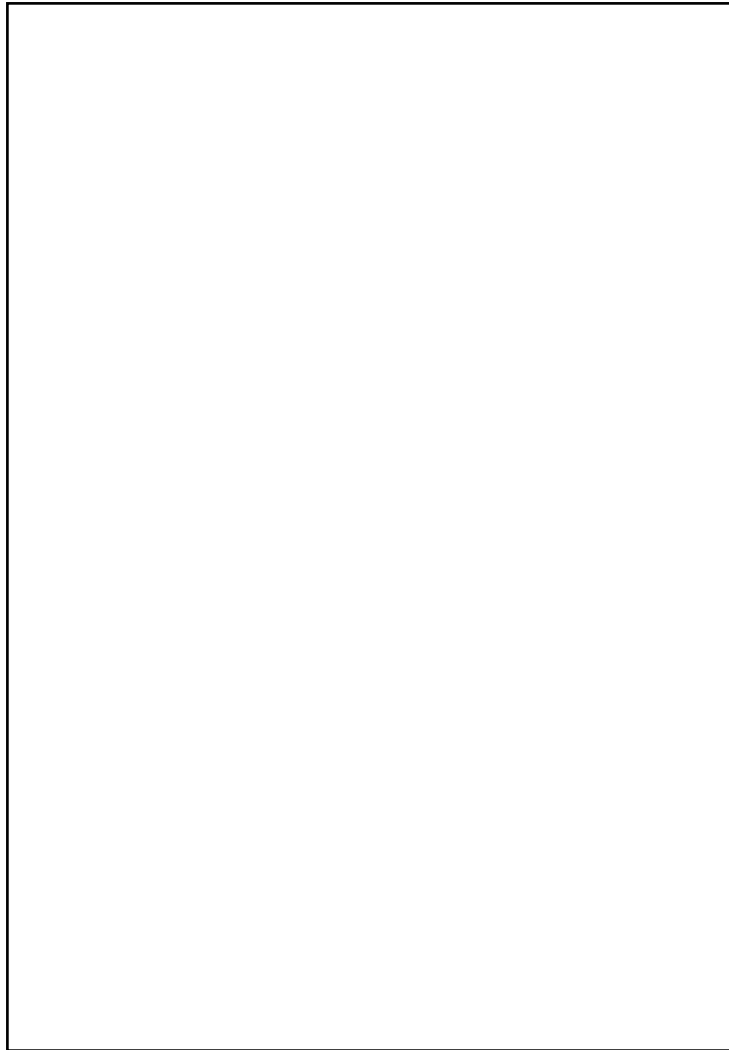


Figure 29. Mannequin by Man Ray, 1938



Figure 30. Mannequin by Marcel Duchamp, 1938

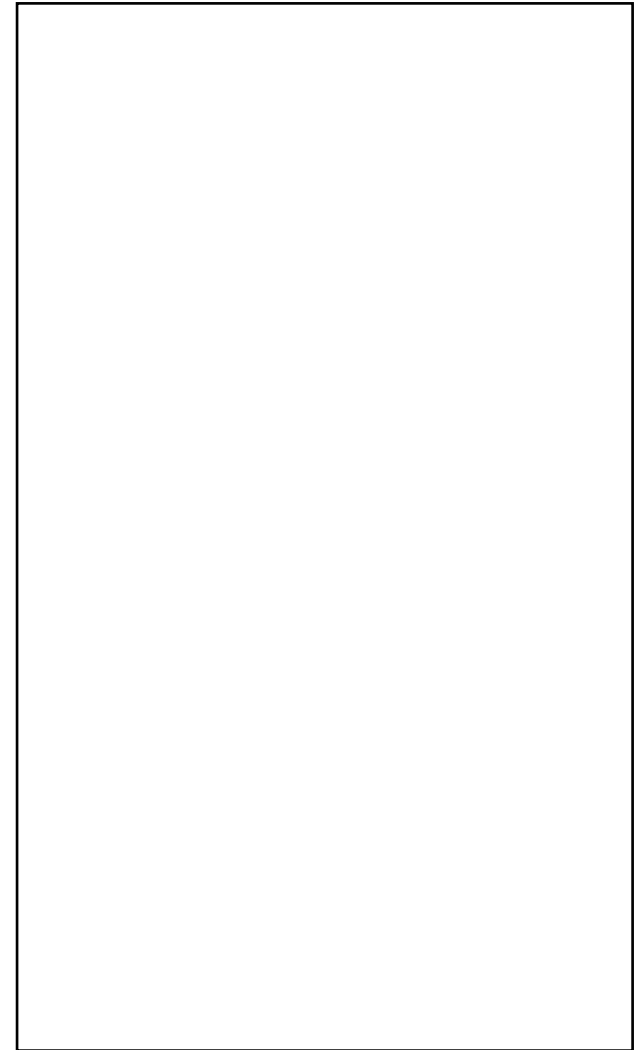


Figure 31. Mannequin by Salvador Dali, 1938

## Mannequin by Man Ray

Ornamenting her hair are two large glass bubble pipes that Ray had utilised in a previous artwork, where they had been illuminated. Below her eyes rest glass tears, in each armpit sits a larger glass tear-shaped drop.

Her left hand reaches for a key in the nearby door but her legs are constrained by a black cylindrical tube, despite being within arm's reach her means of escape has been thwarted. Around the waist of this mannequin is the only other adornment, a ribbon on which is written *Adieu foulard* (goodbye scarf), but representative of a farewell to clothing altogether.<sup>37</sup>

In *Larmes (Tears)*, 1930-32 glass tears also rest artfully on the cheeks of a mannequin. She gazes upwards seeking solace not from the viewer but from aloft. Created at the time of his relationship break-up with Lee Miller the double artifice of a mannequin crying glass tears can be read as representative of a bitter response to the heartache caused by her “false” grief.

Another artwork that became emblematic of the ending of their relationship is *Object to Be Destroyed*, a photograph of Lee Miller's

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<sup>37</sup> New mannequins wore a ribbon with advertising branding on it, the removal of the ribbon by the purchaser robbing the mannequin of her virginity, so goodbye to maidenhood also. *Adieu* is a more emphatic farewell than *au revoir* (until we meet again).

eye has been attached to the ticking pendulum of a metronome.<sup>38</sup>

Miller's eye beating out the rhythm of mortality: of a relationship, of Miller and Ray and ultimately of the viewer.

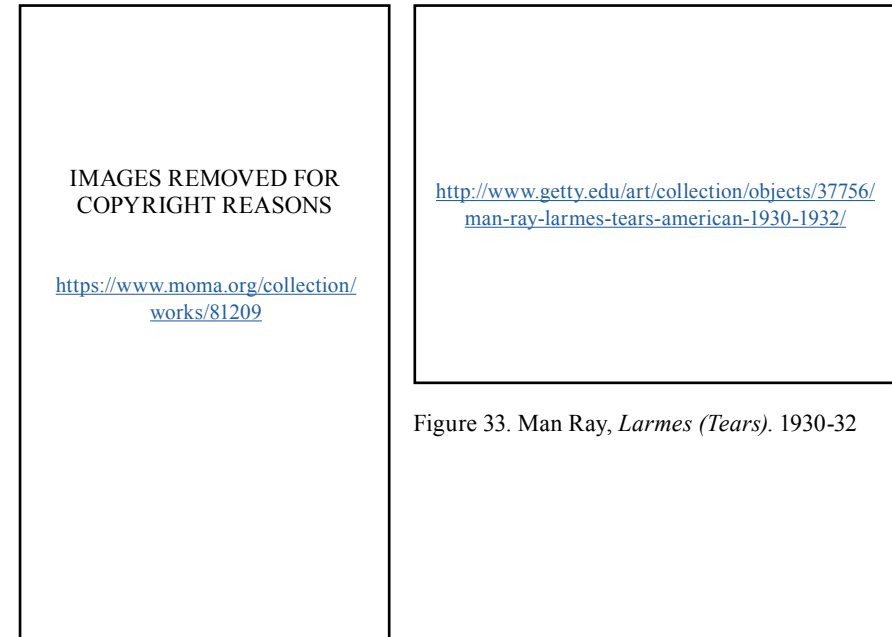


Figure 33. Man Ray, *Larmes (Tears)*. 1930-32

Figure 32. Man Ray, *Indestructible Object (or Object to Be Destroyed)*. 1964 (replica of 1923 original)

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<sup>38</sup> The descriptor written below the initial drawn version states: “Cut out the eye from a photograph of one who has been loved but is seen no more. Attach the eye to the pendulum of a metronome and regulate the weight to suit the tempo desired. Keep going to the limit of endurance. With a hammer well-aimed, try to destroy the whole at a single blow.” Ironically its destruction in 1957 was at the hands of art students during a demonstration against a Dada exhibition. Man Ray later made further replicas such as the one pictured. (Man Ray et al. 2016), 104-106

## Mannequin by Marcel Duchamp

*"I wish I could change sex as often as my shirt."* <sup>39</sup>

- André Breton

Duchamp pushes gender boundaries and references his cross-dressing alter ego Rose Sélavy<sup>40</sup> with his mannequin by attiring her in men's clothing. She wears a man's hat and jacket underneath which is a shirt and tie and a waistcoat buttoned right to the top, she is one of the few mannequins to have her breasts completely covered. She wears a pair of sturdy brogues on her feet – but no pants. The hefty masculine clothing initially appears to shield her from the viewer's gaze but instead serves to further expose and amplify her nakedness below the waist.

A small red lamp sits in her jacket pocket, a personal red light district for her in which to advertise her wares.

Duchamp signed the name Rose (with the additional 'r') on her lower abdomen - is Rose the subject or the creator of her identity?

The concept of androgyny was of great appeal to both the male and female artists associated with the Surrealist movement, for women in particular it offered a means of escape from the suffocating

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<sup>39</sup> (Chadwick and Ades 1998), 37

<sup>40</sup> Spoken as Eros c'est la vie (Eros that's life) Duchamp signed some of his artworks as Rose Sélavy.

conventions of the time.

Claude Cahun's<sup>41</sup> self-portraits have drawn comparisons to the work of Cindy Sherman, they both share the raw presentation of self as both subject and object. In her startling self-portrait from 1928 she directly confronts the viewer's gaze, rather than meeting her own in the mirror. Her hair is closely cropped and she wears a man's jacket, her hand turns her collar up assertively.

She was interested in the controversial theories of Havelock Ellis who suggested the possibility of a third sex: "uniting masculine and feminine traits but existing as neither one nor the other." <sup>42</sup>



34

Figure 34. Man Ray, *Marcel Duchamp as Rose Sélavy*, 1924

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<sup>41</sup> Born Lucie Schwob she renamed herself the more gender neutral Claude Cahun, her stepsister and lifelong partner Suzanne Malherbe, renamed herself Marcel Moore. They lived together in Paris and were part of the Surrealist scene. Her photographs from the 1920s -1930s were revisited with new appreciation in the 1990s after her photos were rediscovered.

<sup>42</sup> Cahun translated his work into French. (Chadwick and Ades 1998), 71

Figure 35.  
Claude Cahun (Lucy Schwob) and Marcel Moore (Suzanne Malherbe), *Untitled*, 1928  
Gelatin silver print; 3 5/8 x 2 5/8 in. (9.21 x 6.67 cm)  
San Francisco Museum of Modern Art, Gift of Robert Shapazian  
© Estate of Claude Cahun  
Photo: Don Ross



35

## Mannequin by Salvador Dali

The most striking feature of this mannequin is a woollen hood with holes for the mannequin's eyes, nose and mouth, it extends down her neck forming a yoke on her shoulders, her hair is crowned by a rather comical penguin head. Long gloves extend above her elbows and a fashionable decorative belt encircles her waist. Tiny spoons adorn her body and above her breasts sit an eggshell cracked in half, the contents spill down her chest and a butterfly perches on her stomach.

Italian haute couture designer Elsa Schiaparelli<sup>43</sup> devised the headgear described by Vogue as a “shocking pink knitted helmet”, evocative of Russian punk activists Pussy Riot.<sup>44</sup>

The nude torsos of the majority of the mannequins led me to consider the politics of FEMEN<sup>45</sup> - a group of young Ukrainian Feminists now based in Paris who use “breasts as their weapons” to protest injustice by means of “sextremism - female sexuality rebelling against the patriarchy” - the female nude as aggressor

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43 Schiaparelli herself embodies the 1930s “new woman”, a single mother abandoned by her husband yet tenaciously founding and running a highly successful fashion empire in Paris.

44 In 2012, they performed their song *Mother of God, Drive Putin Out* in Christ the Saviour cathedral near the Kremlin. Three members of the group were convicted of hooliganism and sentenced to two years in prison. (Luhn 2016)

45 (‘About Us – FEMEN’ 2016)

rather than as passive sex object.<sup>46</sup>



Figure 36. Pussy Riot, 11 January, 2012.  
Photograph by Igor Mukhin.  
Copyrighted work available under Creative Commons licence Attribution-ShareAlike CC BY-SA 3.0  
<https://creativecommons.org/licenses/by-sa/3.0/deed.en>



Figure 37. FEMEN protester, 18 September, 2012.  
Photograph by Joseph Paris.  
Copyrighted work available under Creative Commons licence Attribution-ShareAlike CC BY-SA 2.0  
<https://creativecommons.org/licenses/by-sa/2.0/deed.en>

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*For further information on Mannequin Street refer to Appendix 1*

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46 In the documentary *Ukraine is Not a Brothel*, 2013, director Kitty Greene an Australian of Ukrainian heritage, embedded herself within FEMEN and discovered the group was actually being organised by a shadowy male Svengali who claimed to be “the father of the new Feminism”. Greene notes there is a word in both Russian and Ukrainian with no direct English translation that means power gained through female sexuality – hence the term “sextremism.” (‘Kitty Green: Feminism in Ukraine’ 2014)

## THE ELECTRIC MANNEQUIN

Dali offers this insight into the use of electricity to illuminate some of the mannequins - “the Surrealists were strongly attracted by articles shining with their own light...” creating art works that “... revealed the *desire for the object*, the tangible object. This desire was to get the object at all costs out of the dark and into the light.”<sup>47</sup>

Kachur offers the apt analogy of an “erotic charge” surging through the body as a reason for the artists choosing to incorporate illuminated elements in the display.<sup>48</sup>

In 1931 Ray and Miller created *Electricité*, an advertising portfolio for the Paris electricity distribution company. As well as “rayographs”<sup>49</sup> of domestic electric items such as light bulbs it included an image of Lee Miller’s nude torso with dynamic lines running across her as an erotic charge.

Roland Penrose likens meeting Lee Miller for the first time at Surrealist party to being hit by lightning, never to be the same again.<sup>50</sup>

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47 From *The Object as Revealed in Surrealist Experiment* (published in *The Quarter*, 1932), (Fletcher 2015), 165

48 (Kachur 2001), 48

49 Photographs taken without a camera, Ray placed objects on photosensitive paper and then exposed them to light.

50 (Prodger, Hartigan, and Penrose 2011), 62

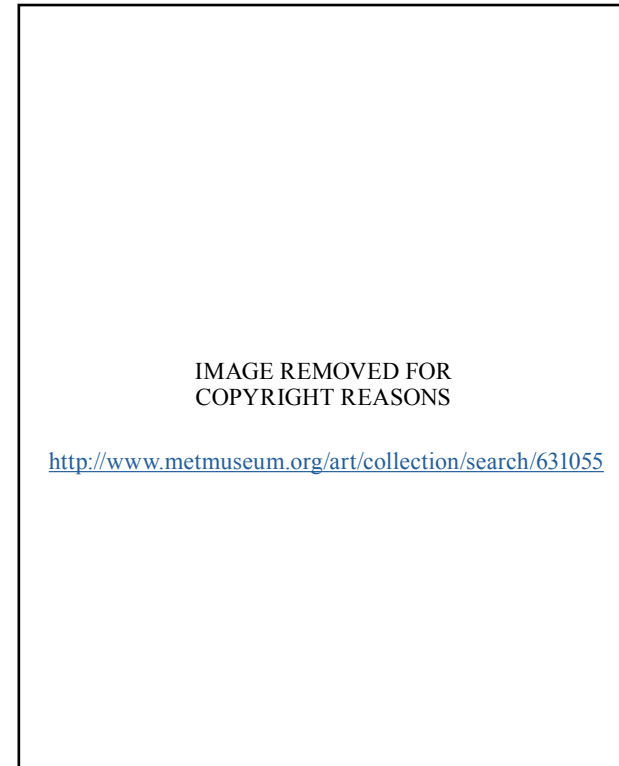
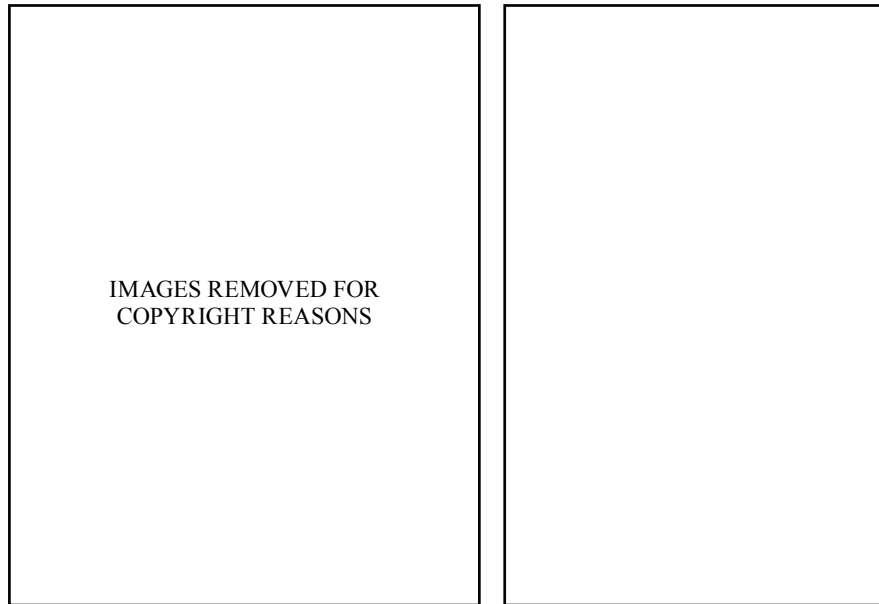


Figure 38. Lee Miller and Man Ray, *Electricité*. 1931

## THE SURREAL WOMAN

As a counterpoint to the male Surrealist representation of the female form, the artworks of their female artist counterparts were also considered – how did they wish to represent themselves? Symbolic imagery of the desire to break free of both the limitations of society and the role of the muse were prevalent, offering insights into concepts of escape and return.



39

40

*I would rather take a picture than be one”<sup>51</sup>*

- Lee Miller

There is a striking contrast between her self-portrait from 1930 and one of a photograph Ray took of her around the same time. Miller presents herself sitting erect, her form is muscular and her body squarely faces the camera, her face is in profile but her expression is clearly resolute. In Ray’s portrait both the lighting and body are softer.

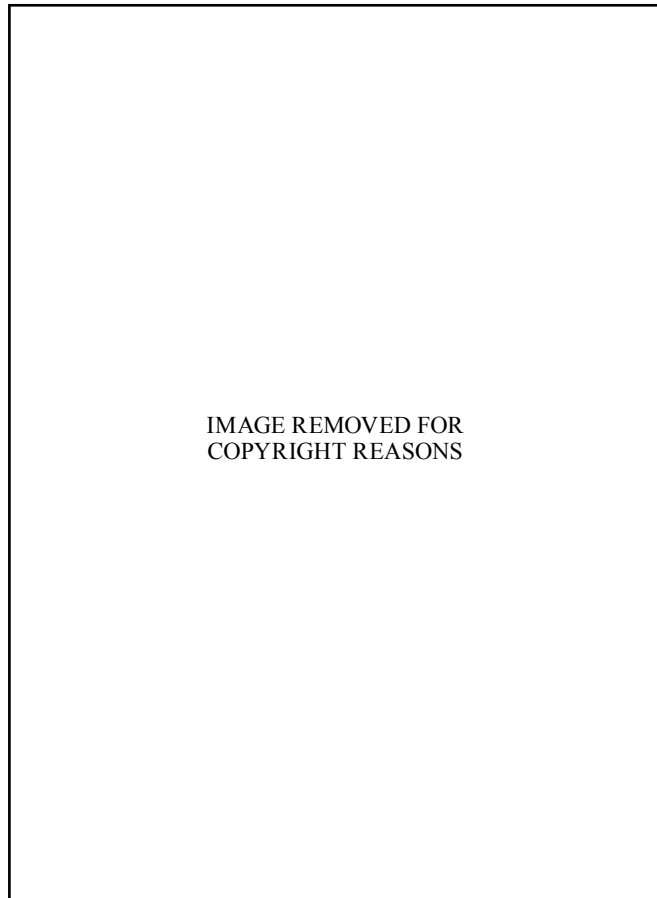
In Miller’s work, women’s heads and bodies are presented as beautiful trophies encased within glass domes, reflective of her role as both fashion model and muse. But in the portrait *Lee Miller Looking Down at Agneta Fischer*, 1932 her head floats free in space, this time she is control of the beauty in the bubble, here offering the replacement doppelgänger as a means of escape, a concept I incorporated into the animation.

Figure 39. Man Ray, *Lee Miller Nude with Sunray Lamp*, c.1929

Figure 40. Lee Miller, *Self Portrait*, c.1930

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51 (Prodger, Hartigan, and Penrose 2011), 17



41

Figure 41. George Hoyningen-Huene, *Lee Miller Looking Down at Agneta Fischer*. 1932

Figure 42. Leonora Carrington, *Self-Portrait*. c.1937-8

Figure 43. Dorothea Tanning, *Birthday*. 1942



42



43

*“I didn’t have time to be anyone’s muse... I was too busy rebelling against my family and learning to be an artist.”<sup>52</sup>*

- Leonora Carrington

In her self-portrait of 1937-8, Carrington wears jodhpurs and her hair is wild as if in motion already upon her steed. But which will she choose - the rocking horse floating above her indoors or the horse galloping in the exterior forest landscape visible through the window? Carrington seems likely to choose the one in the wild to escape her stifling bourgeoisie English upbringing. Carrington’s right hand extends towards a wild hyena rearing on its hind legs revealing large lactating teats, creating a disturbingly confusing maternal yet dangerous creature.

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<sup>52</sup> (Chadwick 1991), 66



The entire painting seems to be in motion as the four elements create a continuous flowing path of escape and return.

In *Birthday*, 1942, American self-taught artist Dorothea Tanning depicts herself standing in a mysterious room with an open door leading to a myriad of further doorways, like a hall of mirrors. She meets the viewer's gaze, her expression melancholy or apprehensive yet determined to enter the mysterious portal.

Attached to her skirt are twisting tree roots made of bare breasted female forms, yet these roots are green. In front of her is perched a mysterious mammalian creature.<sup>53</sup>

Tanning describes her creative process:

*“One must be willing to travel or get involved in the labyrinth of the other or the elsewhere. The real dizziness is a state of spirit so profound that the gulf which is then opened to our eyes is so rich in treasures that one will just want to grab them madly. But coming to the surface after entering that gully, we realize with terrible despair that we have left the most beautiful jewels down there and that we can never find them again.”*<sup>54</sup>

For both Carrington and Tanning the journey may be difficult and the outcome unknown, but in the compulsion to repeat lies the opportunity for success, reflected by incorporating the repetition of loops into the animations.

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53 Whitney Chadwick describes it as characteristic of a lemur, a nocturnal creature used as a talisman of the unconscious and visionary powers also found in the work of Carrington and other women artists. (Chadwick and Ades 1998), 93

54 (Lumbard 1981), 51



## RESEARCH METHODS

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### DRAWING AS RESEARCH

By drawing the mannequins I found that I could imbue them with more power than they had as passive victims of the artists' intentions, and animation gave them autonomy.

The rather comical headdress upon the Dali mannequin became the feathered helmet of an Amazon warrior, (FEMEN also describe themselves as Amazons), the tiny coffee spoons covering her body became spikes instead in an early drawing. The headdress was later dropped to emphasise the balaclava as emblematic of protest rather than suppression.

Limited information about the mannequins was available as they no longer exist. Discussion of the installation mostly led back to Lewis Kachur's research so drawing from the photographs found mostly via Google Image searches led to deeper knowledge of their significance to me and expanded on their contextual relevance.



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Figures 44 - 45. Digital drawings of Dali mannequin

## ACTION RESEARCH

My methodology is based on the action research cycle of creating, observing, reflecting and then refining the work. The advantage to this method is that it is a familiar way of working for me as this is how I approach my commercial animation work.

The familiarity of this methodology is also its disadvantage, as there is the potential to run on ‘autopilot’ when using familiar software and to jump from creating to refining without reflecting on the reasons for this, so incorporating the unfamiliar 3D character modelling program Adobe Fuse<sup>55</sup> encouraged more observation and reflection.

The first creative stage was to make drawings in Photoshop from photographs of all sixteen of the mannequins, then to animate them within Photoshop. My initial focus in this project was in retaining expressiveness of the gesture and to explore the dynamics of the line as a means of bringing agency to the mannequins. The line can bring the image to energetic life when it moves or relegate it to entropy when it is static.

Photoshop animation tests first focused on retaining the spontaneity of the drawing and not being overly concerned at the clarity of

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<sup>55</sup> Fuse is a program for the creation and customisation of 3D human models. They can then be posed and animated in Photoshop without advanced 3D animation knowledge.

the animation. This led to drawing some images I wouldn’t have otherwise and generated ideas for animation as I drew.



46



CLICK TO PLAY

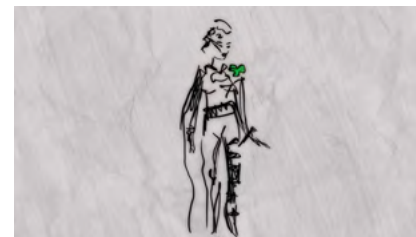
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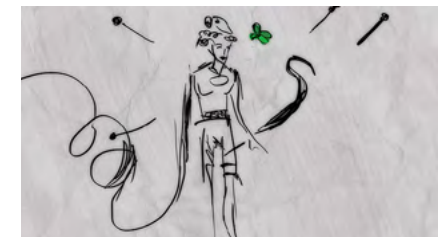


49



CLICK TO PLAY

50



51

Figure 46. Digital drawing of Miro mannequin

Figure 47-49. Digital drawings of Tanguy mannequin

Figure 50-51. Digital drawings of Espinoza mannequin

In an early Dali animation I transformed the body into energy made of lines to effect an escape, this became energy made of light matter in the final version.



CLICK TO PLAY

52



53

In a Man Ray experiment I started to rotate the head as I drew which led to the use of the Fuse 3D models as anatomy reference, as there were limited viewpoints of the mannequins in the photographs.



CLICK TO PLAY

54



55



56



57



58

Figures 52-53. Digital drawings of Dali mannequin

Figures 54-56. Digital drawings of Ray mannequin

Figure 57. Fuse model of Duchamp mannequin

Figure 58. Digital drawings of Duchamp mannequin



As my project became focused on experimenting with the uncanny incorporating the 3D models themselves into the animation became the means to explore this, rather than just using them for reference. The drawn only versions are not life-like so are not uncanny.

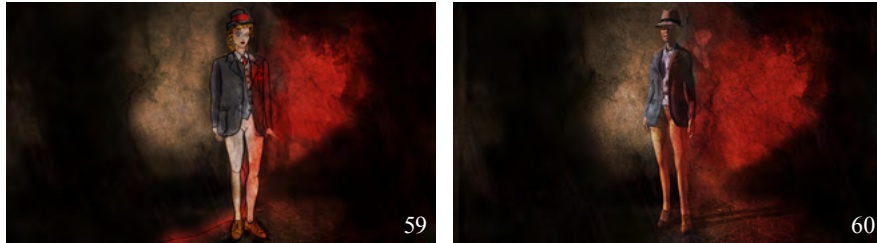
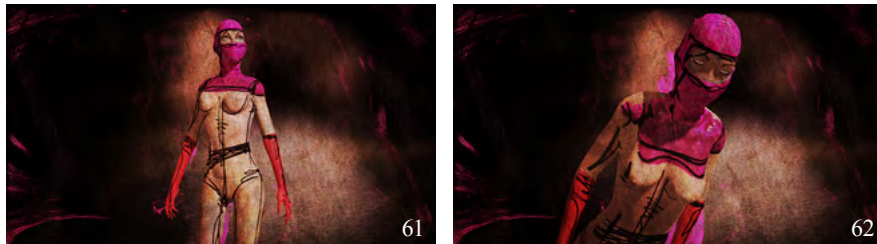


Figure 59. Digital drawing of Duchamp mannequin

Figure 60. Digital drawing with Fuse model of Duchamp mannequin

Evidence of the artist's hand is still retained by drawing onto the digital 'ready-mades,' the models themselves.



Figures 61-62. Digital drawings with Fuse model of Dali mannequin

To make the final animations low resolution draft animations of the models were output as sequences from Photoshop, then imported into After Effects where first a rough cut edit was made then lighting effects, backgrounds and audio were added.



Figure 63. Draft versus Ray trace render

The creation of the narrative of the animations was also shaped by action research. Pre-set animations were tested, which gave rise to further animation ideas. Some of the draft animations didn't combine well with others so were abandoned at the draft stage, but gave rise to other options. Being aware of the long render times<sup>56</sup> for the full resolution versions challenged me to maximise the use of each animation, to see how much variation could be found and pre-set animations that looped were particularly sought out. The repetition of the same movement added to the uncanniness, and the loop is also representative of that most human rhythm, that of the heartbeat here converted to the electrical pulses powering the cyborgs. Conversely it corresponds to the death drive, the compulsion to repeat.

<sup>56</sup> The draft animation sequences only took minutes to render, but the final high resolution versions could take up to an hour per frame for the close-ups so making the rough cut first eliminated any unnecessary Ray trace rendering.

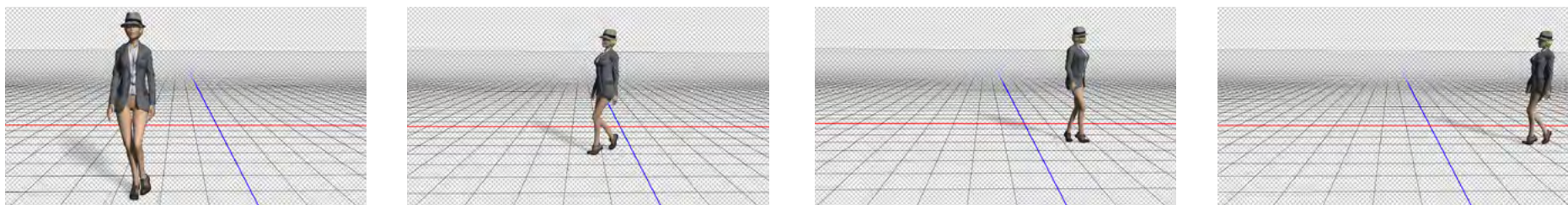


Figure 64. Duchamp walk 360 spin animation - unused

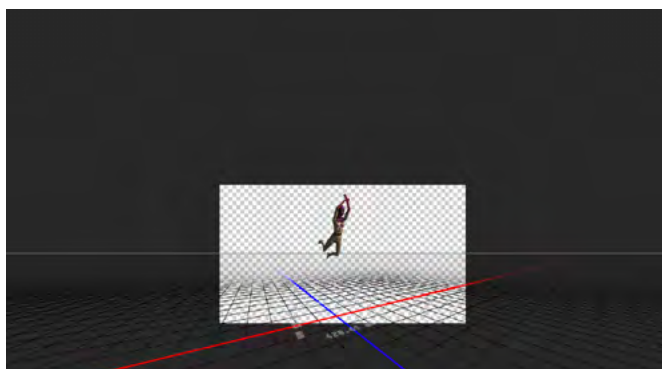


Figure 65. Dali superhero animation - unused

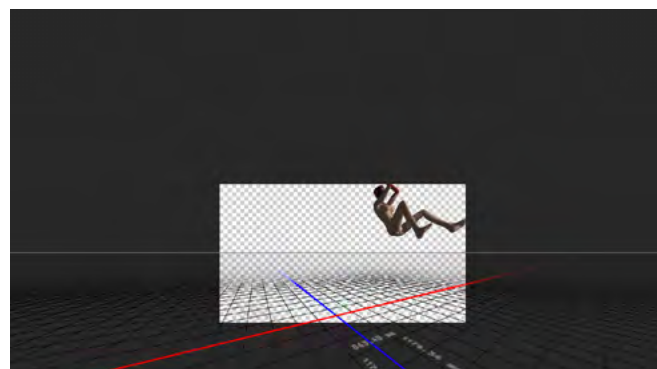


Figure 66. Dali polygon render that would display in draft resolution but would not render in full resolution

The animations that were problematic tended to have a lot of movement in space that made them difficult to incorporate with other sequences but this resulted in a more claustrophobic, atmospheric environment in the final versions.

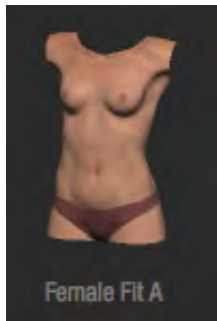




## FINAL ANIMATIONS

### FUSE 3D MODELS

As the majority of the mannequins were predominantly nude I first chose the Fuse model *Female Fit A* as it was the only model without a bra on when modesty mode<sup>57</sup> was switched off. The Scan versions of models are scanned from human bodies that were wearing underwear, so it remains on the models.



67

I was able to remove the remaining underpants on *Female Fit A* in Photoshop, by painting on both the model and the UV maps. It was a more intuitive and creative process to paint on the model rather than the textures for the more gestural additions but painting directly on the textures was more accurate.

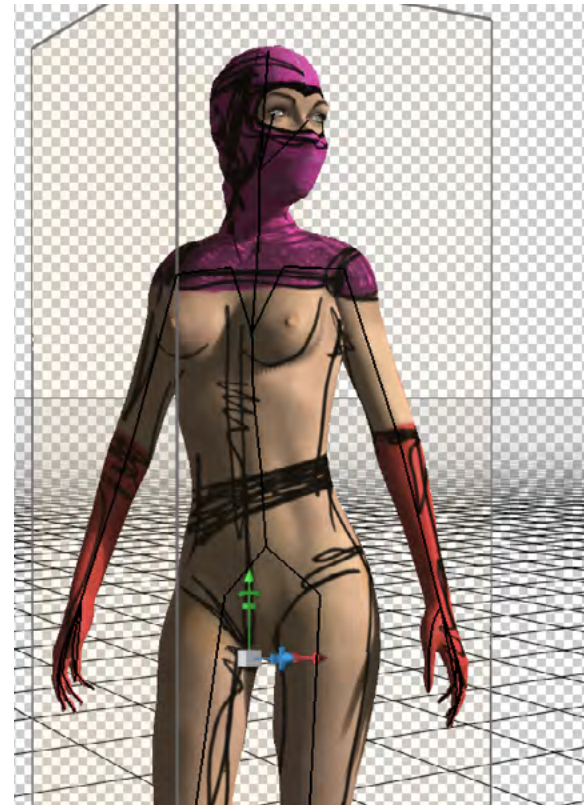
Figure 67. *Female Fit A* torso

Figure 68. Dali Fuse model painted on in Photoshop

Figure 69. UV map of Dali balaclava

Figure 70. UV map of *Toon Teen* in modesty mode

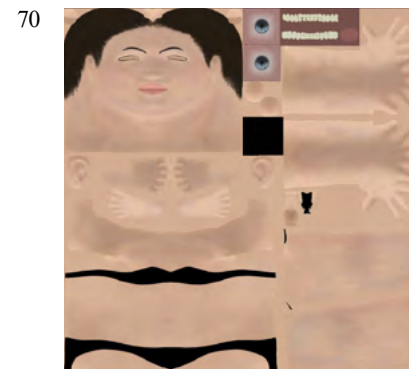
Figure 71. UV map of Dali body



68



69



70



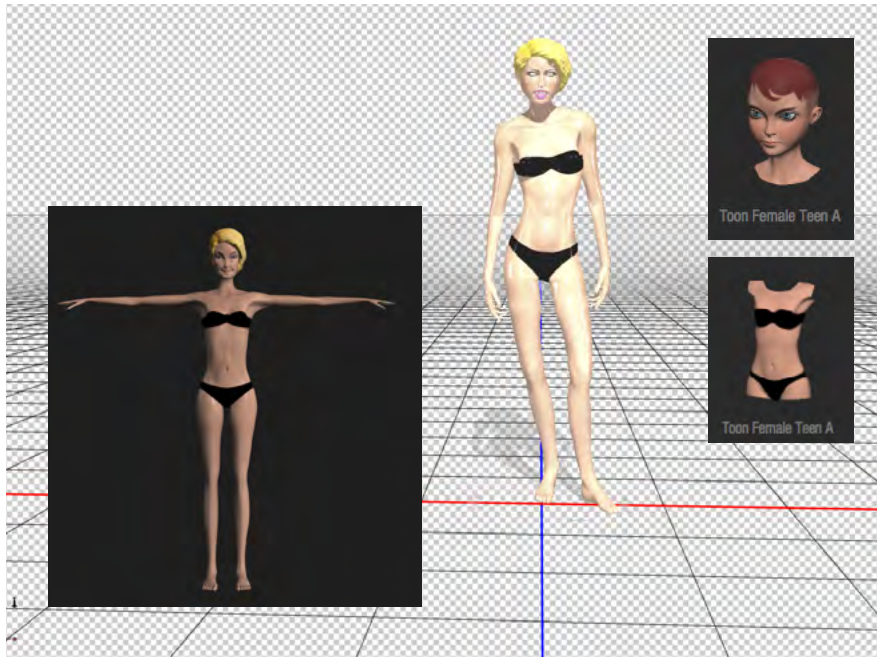
71

<sup>57</sup> Modesty mode covers the potentially offensive areas with black.

The female *Toon Teen* model was trialled to get a less muscular body but the structure of the face was not as successful – the Toon style was less elegant and too “cute” so was less uncanny. I then returned to using *Female Fit A* as my base model and painted out some of the muscular definition in Photoshop.

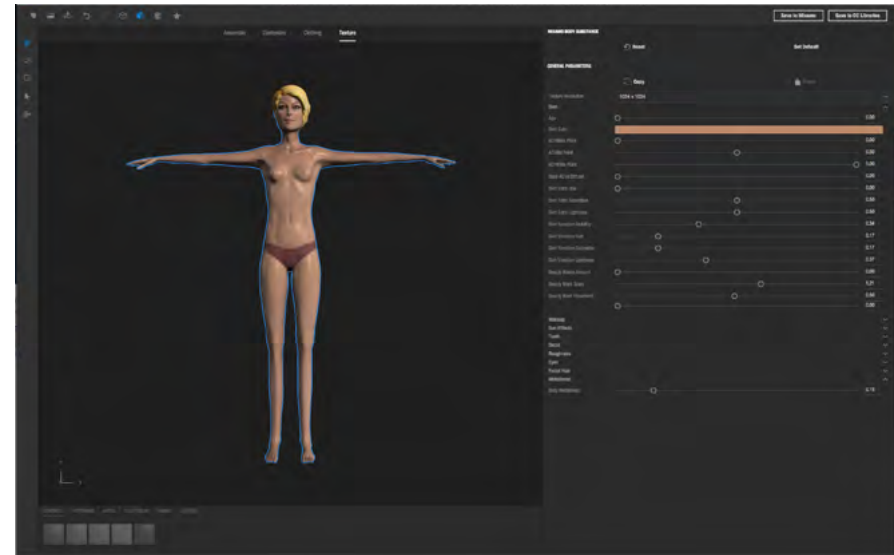


72



73

All parts of the bodies were kept symmetrical, the limbs were elongated and slimmed and the metalness of the skin was increased to make it more reflective and less human. The “totally calm” facial expression was used for all the models to maximize the uncanniness.



74

Figure 72. *Toon Teen* head customised - unused

Figure 73. *Toon Teen* body - unused

Figure 74. Customised *Female Fit A* final base model



Figure 75. Customised *Female Fit A* head

The *Big Part* hairstyle was used for all and coloured blonde to relate to the mannequins. The artificial nature of the hair enhances the uncanniness of the models, it appears to be of a hard substance like plaster, no strand of hair is defined as a single entity. There are glitches where the polygons don't quite meet leaving black holes.

The limitations of Fuse also add to the uncanniness of the eyes; the gleams do not move across the surface, the iris does not contract or expand and the gaze is relentless. No blinking has been added to the pre-set animations.

After experimenting with export options from Photoshop of the models, I output a line illustration version of every sequence as well as the realistic base model version. In After Effects the two variants were combined and lighting effects added to create the electrical pulsing. Adding the lines also defines the construction of the models, emphasising their artificiality.



Figure 76. Output elements of models and final composite

*For further information on Fuse refer to Appendix 2*



## CYBORG 0016\_13 (AFTER MAN RAY)

To make the eyes as wide and large as possible for the Ray cyborg I maximized the settings for the eyes and brow, but this created a lump on the forehead at the outer edge of the eye that was not noticeable until I set up the close-up and rotated the model. I remade this model in Fuse trying to get the balance of enlarging the eye without causing a lump at the edge of the face.



Figure 77. Customised *Female Fit A* head - Ray cyborg

The breasts were made considerably smaller than the default setting and this model has the slimmest limbs, the hands on this one are the most mannequin-like.

The first pre-set animation I chose to use was *Standing Happily* as the extended hands were like the mannequin's but her calm facial expression leaves the mood more open to interpretation by the viewer – happy or resigned to her eternal fate?

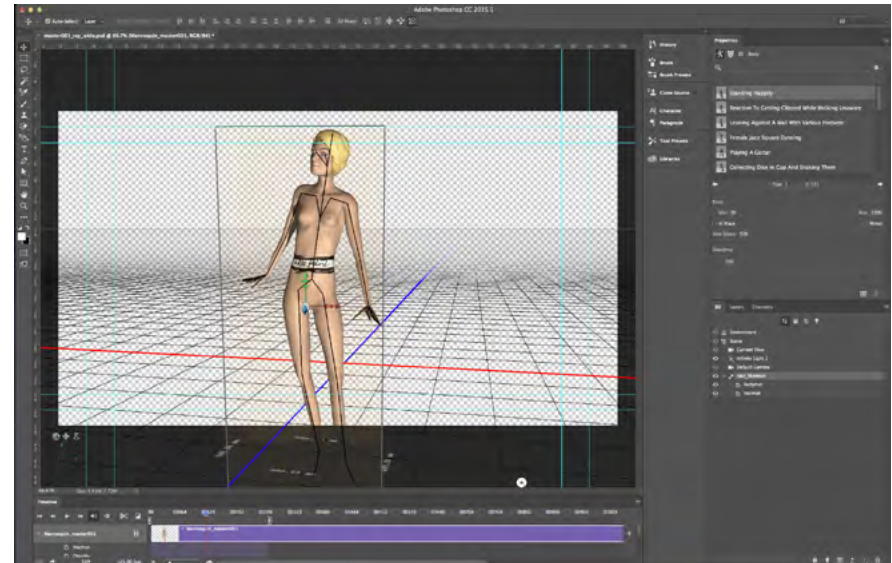


Figure 78. Ray cyborg *Standing Happily* in Photoshop

I started by working with just two variations of this animation, a wide scene where the entire body could be seen and a close up to show the face in more detail, to see how many variants I could get from these two shots and I created a sequence of 2 and a half minutes.

The globes and cylinder were created and animated in After Effects. The globes are a means of wirelessly charging her with her own ideas; a line illustration of her head used as a reflection in the bulb which is illuminated by an electrical current lighting effect. The cylinder restrains her, but she eventually escapes it through destroying it with electrical energy. No matter how many times the cylinder returns to trap her she has the ability to escape it.



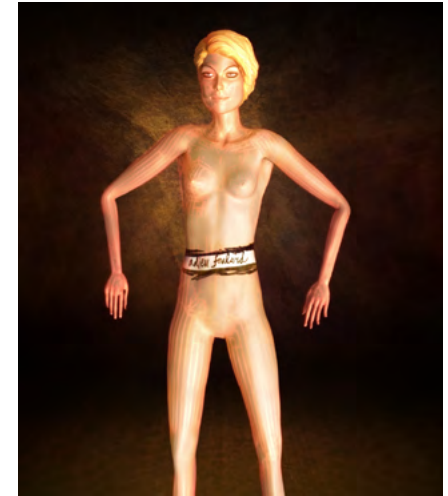
Figure 79. Ray cyborg *Standing Happily* in After Effects, lighting, effects and background added.

After working on the Duchamp and Dali sequences I returned to expand the Man Ray sequence so that all three were the final duration of 5 minutes. Jump sequences were added to offer another means of escape and the pre-set animations *Hip Hop Dancing Shimmy* and *Hip Hop Robot Dance Variation Two* were used for her to experiment with the use of her body after being restrained by the cylinder. The robot sequence is particularly uncanny as it is a human mimicking mechanical movement then applied back onto a synthetic human. I made a mirror version of the shimmy sequence to increase the oddness of her doppelgänger, as they are the same but reversed.



80

Figure 80. Ray cyborg *Hip Hop Dancing Shimmy*



81

Figure 81. Ray cyborg *Hip Hop Robot Dance Variation Two*

The walking style is exaggerated, as the pre-sets used are from a rather flouncy fashion model catwalk sequence.

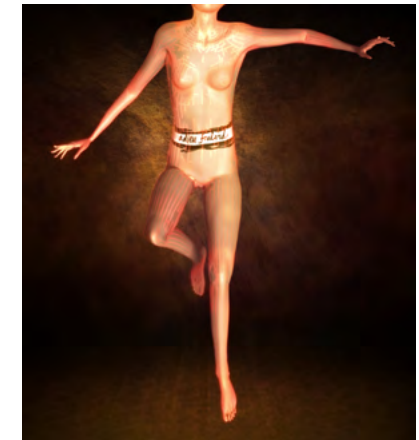
The semi nudity of the mannequins and the location of *Mannequin Street* being Paris made me think of the Moulin Rouge burlesque dancers, where matching costumes result in a lessening of individuality and a heightening of the commodity of the female form so I incorporated the quintessentially French Can-Can dance sequence.

I used the fall to disrupt the repetition of the standing happily sequence. It is very quick so it encourages the viewer to watch the sequence again – did I really see that? I reversed the music at the same time to distort and disrupt the rhythm of that also.

Figure 82. Ray cyborg *Can-Can Dance*



83



84

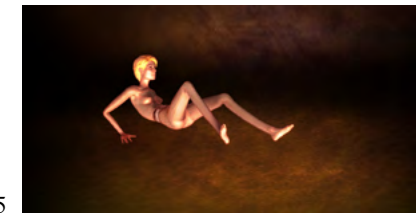


Figure 83. Ray cyborg walking

Figure 84. Ray cyborg jumping

Figure 85. Ray cyborg falling

85





## CYBORG 0016\_04 (AFTER MARCEL DUCHAMP)



Figure 86. Duchamp Fuse model



Figure 87. Duchamp cyborg in After Effects



When the *Female Standing Idle* animation pre-set was applied to the model it looks like the model was wearing high heels during motion capture so the men's shoes curl up at the heels. As all the shoes in Fuse are flat this would always happen. It certainly adds to her oddness.

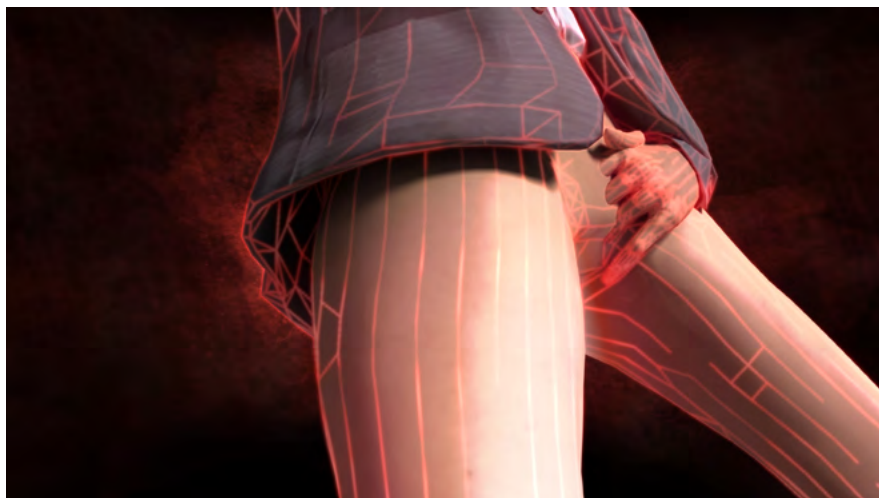
I added a red orb wireless charger to her breast pocket using the same method I used for the Ray cyborg.

Mannequins and 3D models both have in common a lack of genital definition. In Fuse there are multiple controls to adjust breast parameters but no controls to adjust the male or female groin. Technically, it is difficult to add genitals to a 3D model. Complex geometry would be required to create them but their lack of genitals also adds to their uncanniness; they are sexy yet sexless, incapable of procreation.

I utilised a section of a pre-set animation that is the zombie dance sequence from the music video for Michael Jackson's *Thriller*. The aggressive crotch grab emphasises the lack of genitals to brag about and of the masquerade of the female body dressed as a man.

The planes intersect inhumanly, the hand sinks into the crotch: this female cyborg can impregnate herself.





Experimenting with a version of this model where I painted on her, I discovered I could use the brush to erase the texture as well. I painted out areas of the clothing and the skin to create a damaged cyborg, adding the lighting effects to create electrical charges from short-circuiting after a power surge from the crotch grabbing. She nevertheless repeats the same movements as before the damage and self-repairs.



Figure 88. Duchamp cyborg *Thriller*

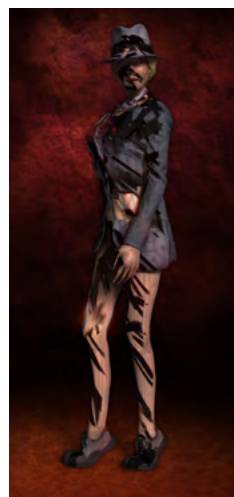


Figure 89. Duchamp cyborg - damaged version

To explore the role of the observer I used a close-up of the Duchamp model's eye as a camera; while we are looking at her she also regards us and records the other two models with her eye-camera.<sup>58</sup> These models have not been designed for use this large, so the geometry is not complex enough to create a very convincing eye; hard linear angles are made where there should be curves signalling its artificiality.

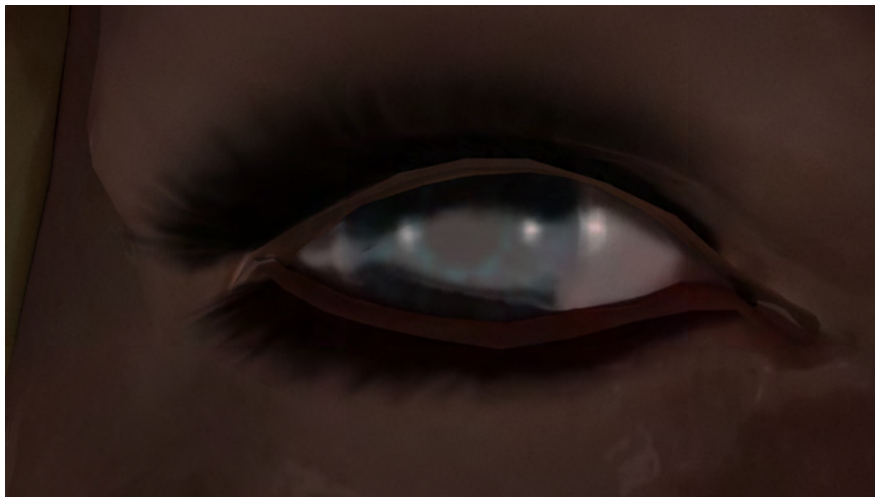


Figure 90. Duchamp cyborg close-up of eye

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<sup>58</sup> In 2012 an Italian mannequin manufacturer Almax SpA was selling the EyeSee model, that had a camera mounted within one of its eyes to record which displays were most looked at and to gather information on the customers, using facial recognition software to ascertain what age, gender and race they were to aid the retailers in their marketing. (Andrew Roberts 2012)

I added the Rrose text to reclaim her identity as female and to individualise her.

I rendered both a left and right version of the exit from frame to see which I preferred but when I accidentally displayed both versions at the same time, I preferred the uncanniness of the doubling. It also offers the opportunity for one of her to escape the scene as the other returns to take her place. After this first trial of doubling I incorporated it into the Ray and Duchamp sequences also.



Figure 91. Duchamp cyborg and doppelgänger

## CYBORG 0016\_11 (AFTER SALVADOR DALI)

There were no ladies gloves in Fuse, only action genre male accessories, so I painted them on in Photoshop as well as painting out the fingernails and I extended the balaclava down the shoulders.

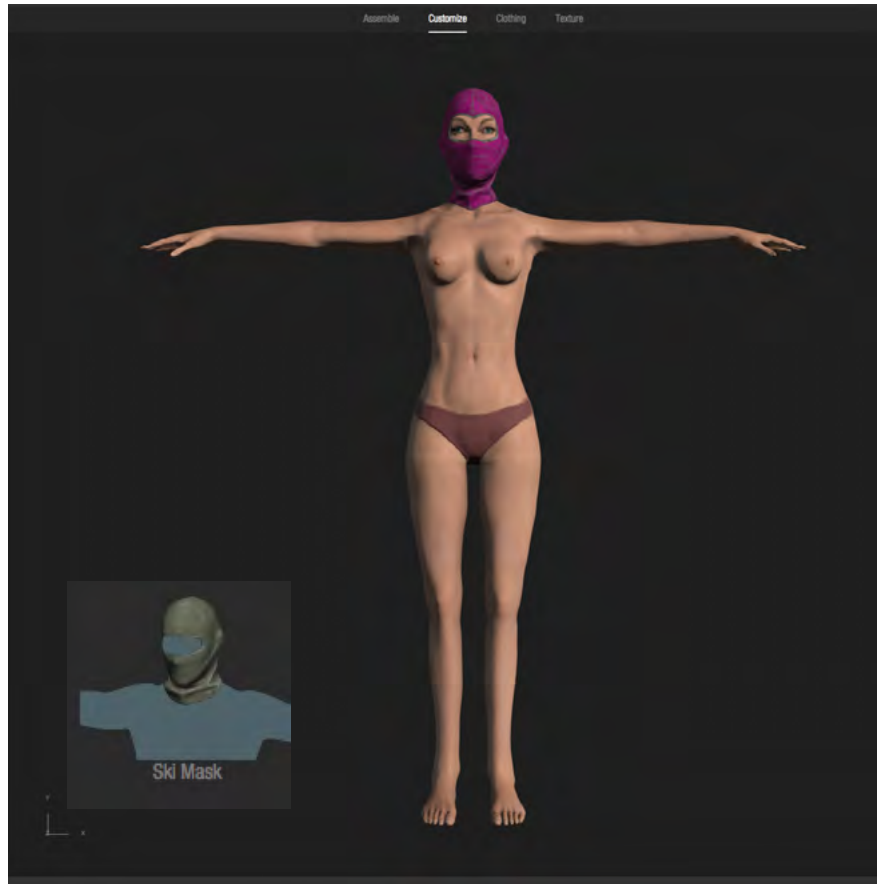


Figure 92. Dali model in Fuse

Despite the clearly antagonistic body language of fist pumping, stamping feet and the crossed arms the balaclava intensifies the uncanniness as it hides the expression in the mouth that signifies to us even more clearly than lowered brows do that this person is a threat.<sup>59</sup>

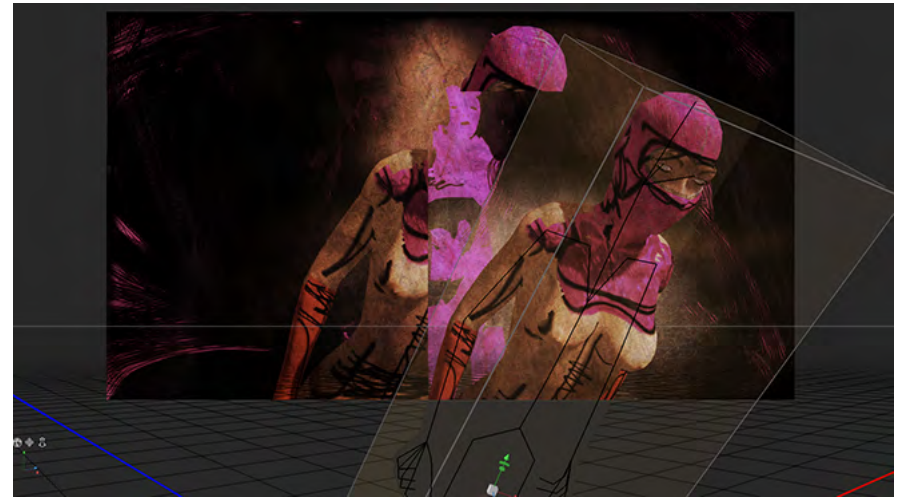


Figure 93. Dali cyborg Photoshop malfunction

I duplicated the 3D model so I could experiment with adding some gestural “war paint” brush strokes to the body while retaining one clean version of it, but this seemed to overload the Photoshop memory and caused a glitch in the duplicate image.

<sup>59</sup> Surprisingly in Tinwell’s testing upper facial movement was not crucial to recognizing hostility in others, it was the involuntary tightening of the lips that enabled genuine anger to be recognized by the subjects. (Tinwell 2015), 89

In the first experiment I only painted on the model not the UV maps, painting on it as on a 2D surface rather than rotating the model in 3D space to continue the painting on her back. I left it like this rather than extending it over the entire body in the final version, as I wanted to emphasize the artificiality of it, her war paint is just “a front” literally and symbolically.

The pre-set animations I have used for all the models have been motion captured from a female body except for the aggressive pumping fists one used for Dali where the anger is directed outwards. This is more threatening than the female standing angrily where the anger is instead directed inwards.

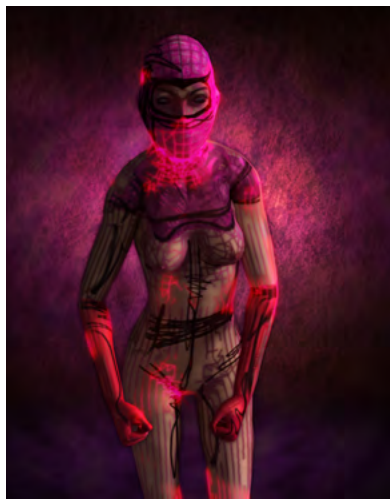


Figure 94. Dali cyborg - angry male

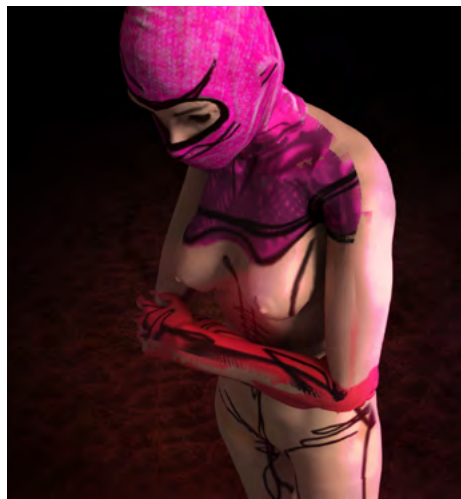


Figure 95. Dali cyborg - angry female

I tried out some other animations captured from males but the shoulders all seemed to hunch down and undermined the elegant stance I wanted for the mannequins.

The hooded face made me consider the ninja, which is a popular gaming character, so there was a wide variety of both male and female pre-set animations to choose from.

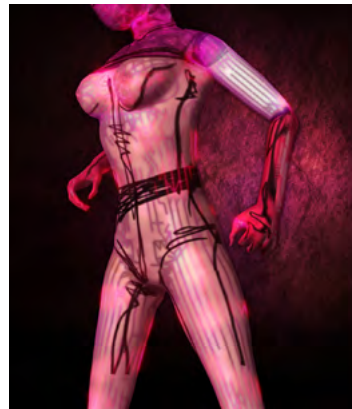
Tension has been created by doubling of the ninja, is she more of a threat to herself than to others, is the threat she is anticipating external or internal? The two shots also disturb our understanding of the movement of human body in space, we're not sure where she may suddenly appear next she has the ability to shape shift as light energy as with her initial appearance in the scene.



Figure 96. Dali cyborg ninja and doppelgänger



The ninja thrusting her chest forward is representative of FEMEN's slogan of "breasts as weapons." Female sexuality as a means of empowerment is also represented by the *Booty Step Hip Hop Dance* animation, with the slap on the hips as a warning shot rather than an invitation. The *Snake Hip Hop Dance* animation presents both breasts and hips as weapons.



Figures 97-99. Dali cyborg ninja



Figure 100. Dali cyborg  
*Snake Hip Hop Dance*



Figures 101-2. Dali cyborg *Booty Step Hip Hop Dance*



This is the most active model with the most extreme movement in the limbs, so the intersections of the planes are most apparent in this model. The thigh folds into the torso when crouching in the ninja animations and when the knee is fully bent when running it has a sharp pointed corner rather than organically rounded. The hands intersect the torso in the standing angry scenes, adding to the uncanniness.

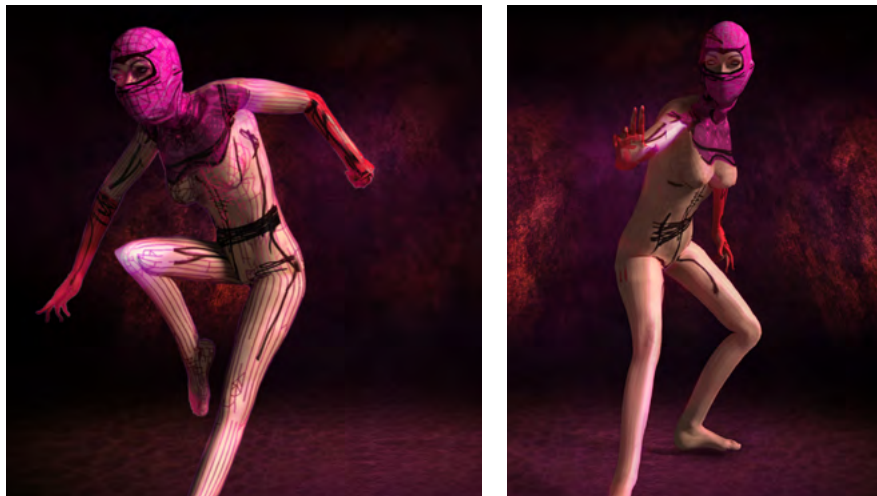


Figure 103. Dali cyborg ninja leg deficiencies.

## ENVIRONMENT

### CAMERA

The default camera setting in Photoshop was used and I kept the camera static. At first I kept the camera fixed to simplify looping the sequences and was considering adding camera movement at a later stage but when I did try this I preferred keeping it still to emphasise the animation of the models. I tried out a pan on the Ray Can-Can sequence to use more dancers but preferred to keep the camera still on the three dancers, as the repetition of the dancing was more compelling than movement of the scene. It also adds to the unease by feeling more voyeuristic.

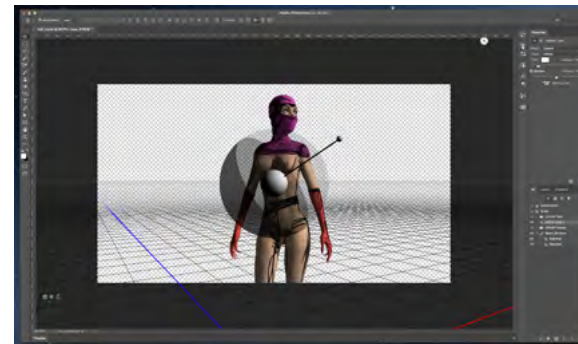


Figure 104.  
Photoshop lighting

### LIGHTING

Default infinite lighting was used on the models in Photoshop and then lighting effects were added in After Effects so that they illuminate themselves more strongly than the external source does.



Figure 105. Dali cyborg lighting effects and background.

## BACKGROUNDS

I wanted clear definition of foreground and background to maximize the focus on the models, so kept the scene simple yet atmospheric. 2D planes have been situated in 3D space to create the background, increasing its artificiality and creating a disorientating and claustrophobic setting.

Reflecting on Freud's concept of both *unheimlich* and *heimlich*, I situated the uncanny models in the most homely of places, the symbolic valley of the womb. Female power has a long history of being driven underground where the wisdom of the female oracle in her cave could be found, the next return of the Goddess may come in the form of a cyborg.

## AUDIO

I was interested in reflecting the time that the mannequins were displayed the late 1930s, so found stock music reminiscent of that era rather than an overly electronic "synthetic" soundtrack.

Each model has her own music track, as in the time I spent working on the models I began to imbue them with their own personalities despite their artificiality.

*Sassy Gals* is the title of the track I used for the Ray cyborg, it features a muffled 1930s trumpet and the rhythm worked with her sassy swaying movement. The continuous looping of the animation was also reminiscent of the metronome featuring Miller's eye, and this model began to become representative of Miller, her beauty distracting from her inner strength and her talent.

The male attire on the female Duchamp cyborg brought to mind Marlene Dietrich so a cabaret style track with French accordion was chosen.

The most aggressive of the models is the Dali one, so the tango seems an appropriate choice; it is brooding and a bit threatening like her. The vocal sounds were an interesting contrast to use over the balaclava-clad face, where is the voice coming from - is she projecting it or is it an unseen opponent?



## REFLECTIONS

In commercial work the aim is usually to get rid of any flaws or at least disguise them, which was my approach when I began working with the 3D models. Once I realised these shortcomings were actually enhancing the uncanniness, I emphasised them and the results were more successful. One example is when the hands sink through the surface of the skin.

Being used to working in key frame animation with complete control over movement, using only pre-sets resulted in frustrations. Sometimes a pose I was interested in using only had a static option so it wasn't incorporated. There were some animations that I wanted extended durations for, but I ended up using these to break in to the rhythm of the longer loops. I could only use a small section of the fall to match to the angle of the Ray *Standing Happily* loop but this adds to its disruptiveness. Experimenting with the only options available also lead to using sequences completely out of the context they were designed for, in particular *Hip Hop* dance sequences provided an assertiveness to movement of the female body that was ideal for the Dali cyborg.

Limitations in the model accessories available in Fuse meant that there were no suitable gloves, but the final work around of painting them on instead resulted in a more dynamic option.

The advantage to using the ready-made models and animations

was that I could focus on experimenting with adding hand drawn elements to the textures and incorporating lighting effects without having to spend a considerable amount of development time setting up the models before customising them.



## CONCLUSIONS

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The longer I spent working on the animations the more I began to individualise the three different models as I got to ‘know’ them. I began to project onto the models their own personalities so my control of them increased my affinity for them, recognizing them as benign although I expect first time viewers would find them unsettling.

The quality of the render also affected my experience of the uncanny. While there isn’t too much difference between the draft and final render of the body, the lack of definition is most prevalent in the face in the draft version as the most crucial means for us to identify with others. In particular the eyes are inhuman, and required the most technological improvement to increase their human likeness in order for them to cross the uncanny valley.

With the pervasive increase in 3D human characters in gaming and animation, and the continuing improvements in the veracity of their digital depiction perhaps the familiarity of these doubles will start to lessen our fear of them if we feel we have a role in their creation. However, if the models were unfamiliar to us, then it would seem extremely difficult to override some of our most inherent instincts when faced with the uncanny.

These conclusions are personal reflections on the effects of the uncanny upon one subject; it offers a starting point for empirical

study on a greater number of subjects. Tinwell notes that in studies of human response to humanoid robots men have tended to be more sensitive to experiencing the uncanny. Researchers have posited “traditional female nurturing roles”<sup>60</sup> as the reason for greater empathy by women, so my gender may be a contributing factor to my experience.

Further research into how contributing to the creation of digital humans affects our perception of the uncanny offers the possibility of fresh insights into what it means to be human.

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60 (Tinwell 2015), 39

APPENDIX 1

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**MANNEQUIN STREET**

## APPENDIX 1

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### MANNEQUIN BY JEAN ARP

A black bag reminiscent of a rubbish sack covers the mannequin's torso and "Papapillon" is painted on the bag suggesting "papa butterfly."<sup>1</sup> The legs are wrapped in white cloth or paper, leaving only the hands exposed.

### MANNEQUIN BY YVES TANGUY

She is adorned only with a belt around her waist with a pendant that looks like a bull's head resting on her chest and wooden spindles on her shoulders. She stands on soft pillows, keeping balance with a staff, and while her nakedness increases her vulnerability, the staff and the aggressive angle of the spindles give her a warrior stance. The spindles can be used against others rather than being used to harm her. A lit lamp within a small cage crowns her head, an electric halo.

### MANNEQUIN BY SONIA MOSSÉ

Mossé who had modelled for Man Ray with Nusch Eluard was the lone female artist but sadly even the meticulous research by Kachur<sup>2</sup> has found little record of her contribution. Her mannequin

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1 Psyche is the Greek word for both butterfly and soul, due to the belief that upon death the soul transformed into a butterfly while seeking reincarnation.

2 (Kachur 2001), 45

is completely naked but veiled in green tulle that is scattered with moss and entwined with the leaves and flowers of electrified water lilies.

Between her legs an arum lily thrusts upwards, symbolic of her impending deflowering (both variants of the lily hold sexual connotations),<sup>3</sup> or is Mossé offering here instead a vision of androgyny, an internal marriage of the male and female?

Her torso is slightly twisted at the waist where the segments join, signalling her artificiality, contradicting her connection to the natural world.

A large scarab-like green beetle sits on the tulle over her mouth, and a small green scorpion-like creature is poised below her waist ready to attack, but will it attack her or instead anyone that attempts to lift the protective veil?

### MANNEQUIN BY ANDRÉ MASSON

Considered to be the most successful of the mannequins was Masson's contribution, entitled *Le baillon vert a bouche de pensée*<sup>4</sup>, (Green gag in the mouth of thought.) The gag is adorned with a pansy.

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3 The water lily is the Western equivalent of the erotic symbolism of the lotus in Eastern art and the lily is both a pagan and Christian symbol of miraculous impregnation first of the Goddess Juno and then of the Blessed Virgin Mary. (Walker 1988), 428

4 The French *pensée* signals the double meaning of thought.

Her head is enclosed within a wicker birdcage, the door ajar so her face is clearly visible, the lighting has caused strong vertical lines of shadow down the left side of her face, amplifying her imprisonment.

Her G-string is decorated with a mirror surrounded by tiger-eyes, confronting the viewer with their own reflection. Two feathery spirals above the mirror on the torso create a flamboyant external uterus. Masson amplifies the join at the waist by tying a red cord, as if a bloody gash.

#### **MANNEQUIN BY KURT SELIGMANN**

Wearing a white hooded robe with saintly connotations, it shrouds her entire body, only her hands and half her face is visible. A laurel wreath crowns her head, upon which a large ostrich egg has been stabbed by a dagger. Multiple strands of tubing winds loosely from one hand the other, containing her but still easily escaped. The thread also offers an alternate reading of mythological female spinners of fate, she may take control of the artist instead.

Seligmann was interested in the occult and the androgyne, half-male and half-female representative of the joining of opposites brought about by the philosopher's stone. Nadia Choucha notes that Seligmann believed that without the concept of evil, good would not make any sense.<sup>5</sup> To realise the desired unity the androgyne

represents separation must be experienced first, which may involve some form of painful or fatal sacrifice. The influence of Alchemy can be seen most clearly in this mannequin but is also an underlying theme for the Surrealists.

#### **MANNEQUIN BY MAX ERNST**

This display was the only one in the line-up to feature two mannequins; "the widow" stands over the body of a man with a lion's head lying on the floor wearing a dark suit that is heavily spattered with white paint, perhaps he was an artist.

The woman is shrouded in a knee length black hooded cloak, but this is drawn back to reveal her risqué stocking clad legs. A veil of mourning darkens her unsmiling face.

Is she an innocent victim or is she the murderer? Her clothing and stance point to the latter impression. Her outstretched right hand adds to a verdict of perpetrator as a reminder of the murderess Lady Macbeth and her exclamation "Out, damned spot!" as she is unable to wash her guilt clean. Her eyes are directed at us, not at the man lying at her feet.

Ernst planned to install a light between her legs but it offended Breton and he asked for it to be removed. The man's hand grasps an upper thigh so he appears to have found his way without the illumination.

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5 (Choucha 1992), 81

## MANNEQUIN BY JOAN MIRO

This mannequin along with Duchamp's also plays with notions of gender but again the garment does not protect her from the viewer's gaze with her female sexuality still clearly on display. Black fabric shrouds only her torso, her breasts and crotch are exposed.

Her left hand is extended towards the viewer and from her right arm hangs a glittery wheel from which emanates wires that loop and encircle her left arm, upper torso and head, it is organic in its flow, three dimensional lines that have leapt from Miro's canvas. Is she another mannequin like Seligmann's able to take control of her own fate or to weave the fate of others?

She features a rather fetching moustache, reminiscent of Dali's elaborate facial embellishment and Duchamp's notorious graffiti moustache and goatee pencilled on a mass-produced reproduction of the Mona Lisa, 1503-05, entitled *L.L.H.O.O.Q. (She's Got A Hot Ass)*, 1919.

## MANNEQUIN BY AUGUSTIN ESPINOZA

In 1934 Espinoza had published his novel *Crimen*, described as "a grisly anthology of sex, murder and mutilation."<sup>6</sup> The most disturbing aspect to this mannequin is that her left nipple is pierced with six pins, a life-size voodoo doll.

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6 (Kachur 2001), 55

A sheep's skull, apparently illuminated sits atop her head and a large pendant also pierced by pins adorns her. Two butterflies perch atop the black strip of fabric around her left shoulder, linking her to Arp and Dali's mannequins.

There is a small male doll on the sash around her waist, which looks like a Kewpie doll of the type found at a fun fair, its placement is reminiscent of a tiny foetus. A cape hangs over her right shoulder trailing to the floor and black fabric continues to wind in strips around her left leg, attaching to her left wrist, restraining her.

## MANNEQUIN BY WOLFGANG PAALEN

The Autumnal counterpart to Mossé's spring bride she is clad in mushrooms, moss and twigs as if risen from the forest floor. Her extended left hand offers the viewer a handful of dirt and, as with Seligmann's mannequin, she is wearing a white shroud over her head.

A bat with wings extended hovers above her, its mouth open, ready to bite. The blood sucking bat emblematic of the vampire, eternal uncanny life gained from the sacrificial draining of their victims. In Christian art demons are often depicted with bat wings so the creature itself can be a fear-inducing spectre associated with our inherent fear of the night, but also a shamanic totem of rebirth.<sup>7</sup>

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7 (Walker 1988), 362



## MANNEQUIN BY MAURICE HENRY

Henry was best known as a cartoonist, his mannequin offers the most literal interpretation of woman's connection to nature. Cotton wool clouds obscure her right eye and envelop her head. A black scarf and a necklace of wooden pegs in the style of an Elizabethan ruff surround her neck and are a reminder of women's earthly domestic role in the home. Her ankle length skirt is covered in ears of grain and her feet are covered in sticks connecting her to earth.

Strainers cover her breasts; the handles serve the role of metallic nipples but are unable to serve the purpose of feeding a child that the fertility symbolism of the grain suggests.

Henry's mannequin has her feet firmly planted in the terrestrial world, but her head in the clouds connects her to the realm above, the world of mythical deities and Christian saints.

## MANNEQUIN BY OSCAR DOMINGUEZ

After Man Ray's mannequin three lesser-known artists' contributions are featured. Spanish artist Dominguez tethers his mannequin to a soda fountain by rope wrapped tightly around her right arm and connecting her hand to the handle of the dispenser, so while she is trapped by it she also controls it. The fountain dispenses a blue fabric representative of water, which crosses over her right breast covering her torso, offering a slight yet translucent covering

of her nakedness. The fabric then twists around her legs covering her feet as if she has arisen from the sea, reminiscent of Botticelli's *The Birth of Venus*, 1482-1485.

A spiral metal coil encircles her head creating the brim of a hat that shades her eyes; again a lamp tops her head, but it also has the appearance of an antenna able to transmit and receive and perhaps offers her a means of escape.

## MANNEQUIN BY LÉO MALET

Malet, best known as a poet, went on to write a series of grisly crime novels. His mannequin is blindfolded with white cotton and her hat of helmet-like appearance is topped with a paraffin cooker. There is a belt around her waist and a suspender across her shoulders restrains stockings in place on her arms increasing the fetishism of the object. A spring is attached to her chest that the viewer could manipulate, Malet had planned to hang a goldfish bowl from her nipples but Breton disallowed this addition. The lower end of her right arm has been removed or "amputated" during the installation as one photo has her hand still visible. Breton did not veto the loss of her limb.

Kachur wonders if there may have been restrictions placed on what could be done to the mannequins by their manufacturer,<sup>8</sup> which

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8 (Kachur 2001), 55

may have limited further desired damage being done to them by the artists.

### **MANNEQUIN BY MARCEL JEAN**

The final mannequin in the street is described by Jean as “a water nymph enmeshed in a lead-weighted casting-net”<sup>9</sup> however it seems she would be able to escape this net without too much trouble as the magnets and sea sponges do not appear to weigh her down too dramatically.

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9 (Kachur 2001), 62

APPENDIX 2

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**SOFTWARE**

## ADOBE FUSE

Fuse was added to Adobe's suite of Creative Cloud digital software in late 2015, it offers a simple entry-level program for the creation of 3D human characters without requiring in depth understanding of the complexities of 3D animation.

The character is created modular style by piecing together the body parts, starting with the head then adding the torso, arms and legs. There is a small range of female and male characters, mostly realistically human.

The models work best when the matching parts are joined together. Less convincing results are seen if mismatched parts are joined together from the different model options

Once the base model has been created sliders can be used to customise the proportions of the body and the face. Adjustments default to being symmetrical, but a brush can be used to customize one side only. Finally hair can be adjusted and clothing and accessories can be added as well as expression to the face.

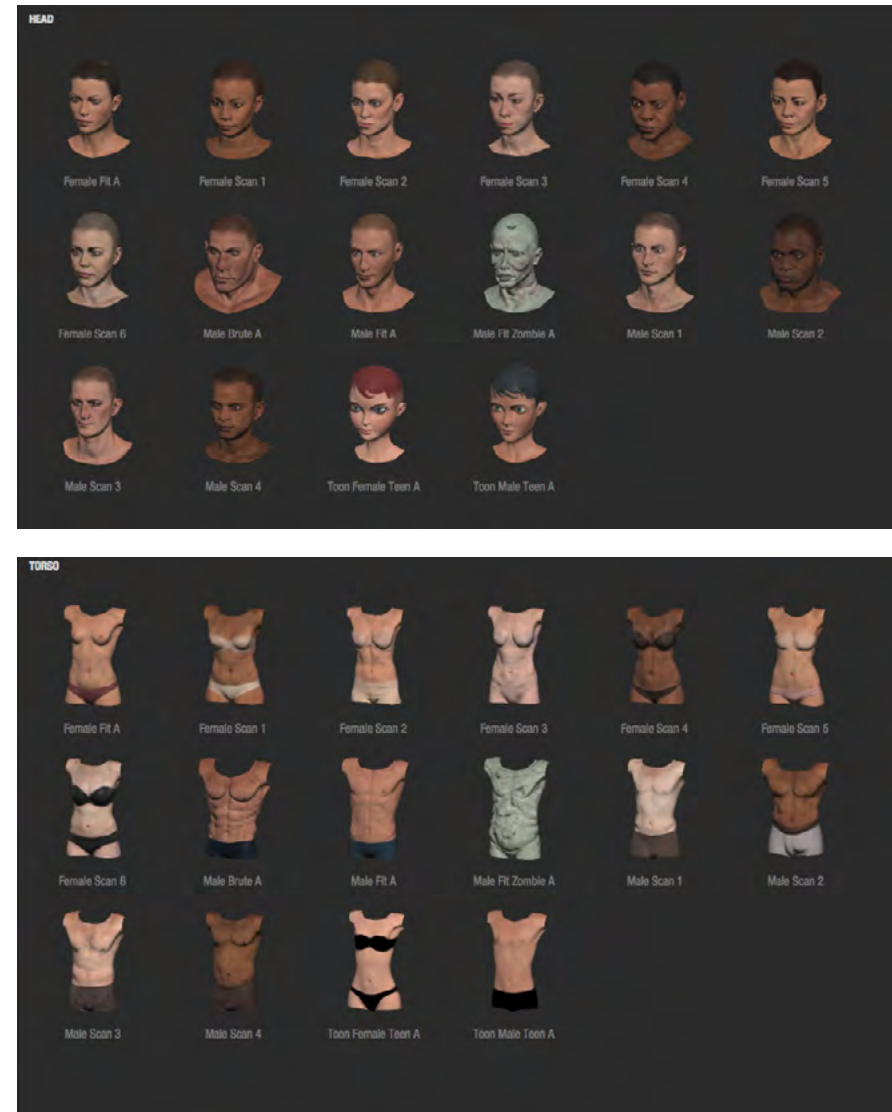


Figure 1. Fuse head and body components

The finished model is then uploaded to the Creative Cloud library where it can then be accessed in Photoshop. In Photoshop there is a library of hundreds of both static poses and animations available to apply to the model. Many of the animations can be used as continuous loops and the in and out points match to other animations so you can create a sequence. The animations are created through motion capture so are realistically human, however resolution limitations in the models can create an uncanny effect when human movement is applied to them.

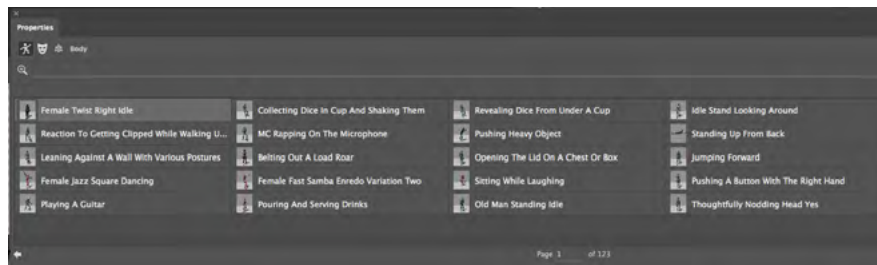


Figure 2. Photoshop poses and animations menu

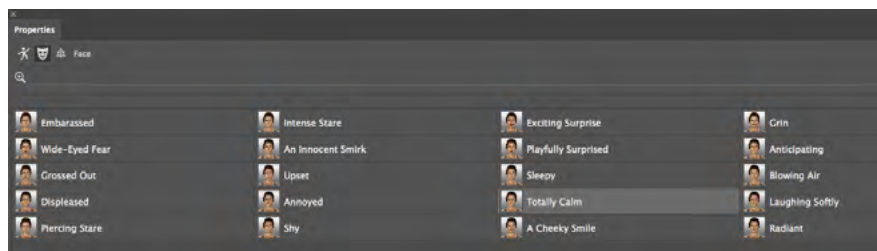


Figure 3. Photoshop facial expressions menu

## FUSE TEST

In an early experiment I fused a male zombie head and limbs with a female torso and hairstyle to create a Frankenstein monster. I applied the pre-set animation *Zombie Jab Punch Attack Right Arm* and the arm went through the leg when the arm spacing was at its default setting, which seemed rather appropriate for a zombie and is an example of how the shortcomings of the models add to their uncanniness as a human body's arm cannot penetrate its leg.

Figure 4. Fuse zombie test



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**EXAMINATION PRESENTATION**

## EXAMINATION PRESENTATION

*Valley of the Cyborgs* was presented on November 21, 2016 as a three channel video installation in Room 602, Level 6, WE Building, AUT. Each animation is a five minute loop that screened continuously and all videos screened simultaneously.

Upon entering the darkened room the three videos were encountered, one work was projected upon the wall directly opposite the entrance while the other two works were displayed upon HD TV monitors at eye level each with an accompanying set of headphones.

One monitor was positioned to the left of the entrance and the other was placed directly opposite this to the right of the entrance. *Cyborg 0016\_13 (After Man Ray)* was projected onto the wall and the audio for this was played through the speakers. Due to the larger scale of this work and the ambient sound accompanying it I anticipated this work was most likely to be seen first but the order of viewing was not stipulated and the two examiners were free to choose the order in which they observed the works.

My original intention was to screen all three videos on monitors of the same scale but due to the availability of the projector in this space I chose *Cyborg 0016\_13 (After Man Ray)* to project on the wall. It contained the most detail so benefited from the increased scale. It was also least affected by the lower contrast in the colour tones that the projector provided compared to the higher contrast

of the monitors. The monitor to the left of the entrance screened *Cyborg 0016\_04 (After Marcel Duchamp)*, and to the right of the entrance was the monitor screening *Cyborg 0016\_11 (After Salvador Dali)*.

Seating was arranged next to the entrance so the three animations could also be considered simultaneously after being viewed individually.

A laptop was also provided that screened a 1.42 minute video that demonstrated the process of making the animations. The three models were first made in Fuse then animated in Photoshop and finally the lighting effects and backgrounds were added in After Effects.

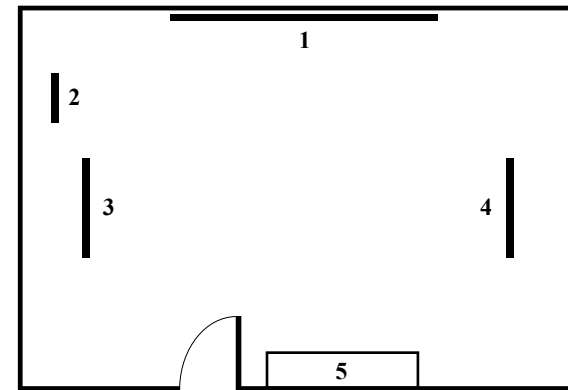


Figure 5. Diagram of the installation layout

1. Projector screen - *Cyborg 0016\_13 (After Man Ray)*
2. Laptop - *Making of clip*
3. TV Screen - *Cyborg 0016\_04 (After Marcel Duchamp)*
4. TV Screen - *Cyborg 0016\_11 (After Salvador Dali)*
5. Seating



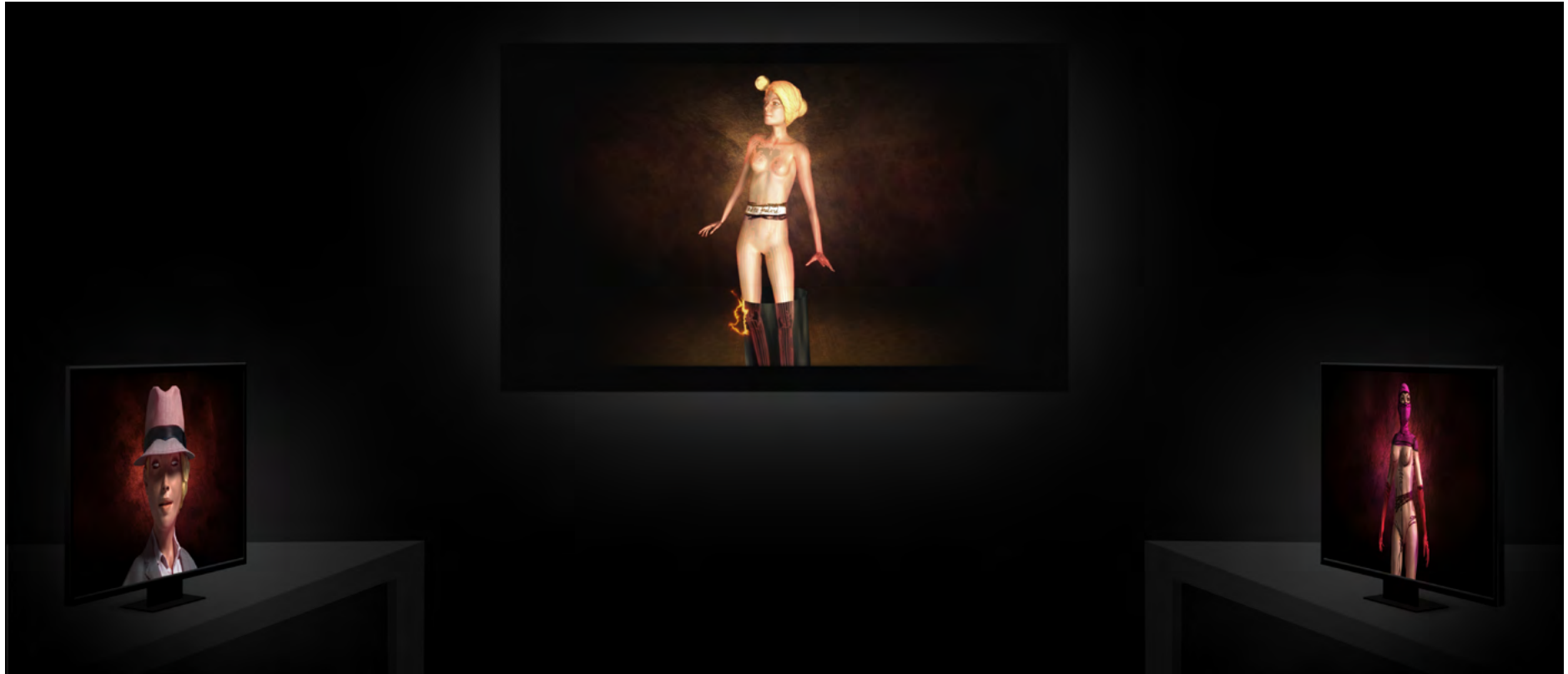
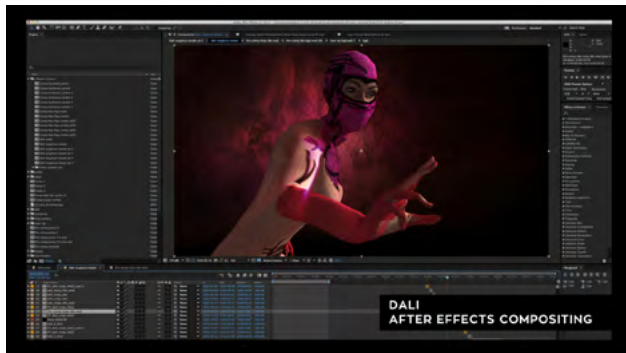
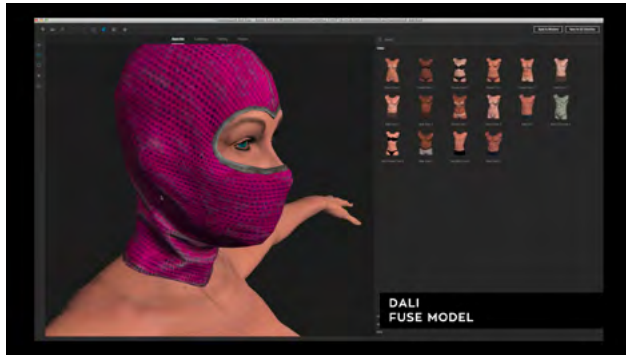


Figure 6. Simulation of the installation layout



Figures 7-9.

Video stills from the *Making of* clip



***Cyborg 0016\_04 (After Marcel Duchamp), 2016***

Format: HD 1080p quicktime video, stereo soundtrack

Duration: 5 minute loop

Music credit: *Matroushka Waltz* by James Brett, Audio Network

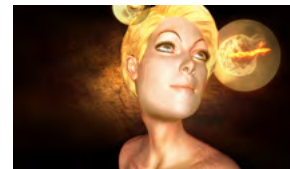


***Cyborg 0016\_11 (After Salvador Dali), 2016***

Format: HD 1080p quicktime video, stereo soundtrack

Duration: 5 minute loop

Music credit: *Tango Neon* by Tim Garland, Audio Network



***Cyborg 0016\_13 (After Man Ray), 2016***

Format: HD 1080p quicktime video, stereo soundtrack

Duration: 5 minute loop

Music credit: *Sassy Gals* by Little Violet & Bob Bradley, Audio Network

Figures 10-12.

Video stills of the final animations

The final works can be viewed online:

<https://vimeo.com/channels/valleyofthecyborgs>

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