

The History of Altered Human Representation and its Impact on the Future Development of Mankind.

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List of Contents

ABSTRACT

PART ONE: Sculptural Representations of Altered Human Form

CHAPTER 1 : Prehistoric

Page 4 The Lionman

Page 6 Venus Figurines

CHAPTER 2: Ancient

Page 6 Egyptian Zoomorphic Gods

Page 8 The Aztec God Quetzlcoatl

CHAPTER 3: Ethnic

Page 8 Masks of Tribal Africa

CHAPTER 4: Twentieth Century

Page 9 Twentieth Century Sculpture

Page 10 Rock Drill by Jacob Epstein

Page 10 Constructed Head No 2 by Naum Gabo

Page 10 Cyclops by Eduardo Paolozzi

Page 11 The Interrelationship Between Twentieth Century Sculpture and Science Fiction

PART 2: The Origins of Posthuman Imagery

CHAPTER 5: Defining Posthumanism

Page 13: Transhumanism

Page 13: Critical Posthumanism

CHAPTER 6: Physical manifestations of These Philosophies

Page 13: The Cyborg

Page 14: The posthuman Hybrid

Page 15: Cryonics

CHAPTER 7 : Prediction, speculation and further evolution

Page 16: Xenotransplantation

Page 16: Cyborgism

Page 17: Mind Uploading

CHAPTER 8: In Conclusion

Bibliography

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Abstract

In her work "A Cyborg Manifesto" Donna Haraway states that the Cyborg has "no origin story in the Western sense".¹ The cyborg is the most obvious physical extension of Transhumanist beliefs and I wish to demonstrate that the cyborg is a refinement of beliefs and practices that can be traced back over Forty Thousand years. I wish to show that the cyborg is a Mythological creature made real. A myth is a concept (often based on the observation of an unexplainable phenomenon) which is turned into a story. These stories are then illustrated using images, either pictures or sculptures. Haraway states, that "the cyborg appears in myth precisely where the boundary between human and animal is transgressed."¹ This boundary has a long history of transgression and maybe represents an eternal aspect of the Human imagination. The desire and ability to portray this transgression orally and visually may be one of the elements that truly created our Human consciousness. I will track, primarily, sculptural representations of altered Human form as the most concrete and complete vision of transcendent thought.

The earliest sculptural objects from Human history depict Humanity in an altered form, from the "Lionman", Venus figures through to Zoomorphic tribal objects and Twentieth Century Western Sculpture. I wish to trace these developments and the ideas underpinning them, to include the influence of earlier cultural traditions on the modern world. I will then propose that contemporary Transhuman concepts such as the Cyborg and Cryonics are a direct product of a continuous historical representation of the Altered Human form in Art and the eternal, Mythological, ideas associated with it. Therefore, the roots of Transhumanism are not to be found in the Enlightenment but within the world of Prehistorical Mythology.

PART ONE: SCULPTURAL REPRESENTATIONS OF ALTERED HUMAN FORM

CHAPTER 1: PREHISTORIC

THE LIONMAN

The Lionman was carved at least Forty Thousand years ago from a piece of Mammoth Ivory. It stands approximately thirty-one centimetres tall and is estimated to have taken around Four Hundred

¹ Haraway Donna 1985" A manifesto for cyborgs: Science, technology and Socialist Feminism in the 1980s" Socialist Review 65-108.

hours to complete. It is the oldest known figurative sculpture and represents a being that does not exist in reality but symbolizes concepts of a supernatural or mythological being.²

The fragments of the object were found in a cave in Southern Germany in 1939, just before the outbreak of World War Two. It was subsequently slowly pieced together, with more pieces being found in the cave and also being uncovered in Museum collections. The object has reached its present form in 2013.

The sculpture is a product of the Aurignacian culture which is an archaeological tradition from the Upper Palaeolithic associated with early modern Humans. The time frame is between 43 000 and 26 000 years ago. Aurignacian figurines depicted a number of subjects, including Venus Figures. These anthropomorphic representations may be regarded as some of the earliest evidence of religious or mythological belief. Anthropomorphic figures or Therianthropes are very rare from the Palaeolithic and they are often found in secluded places.³The 'Bison Man' of Le Gabillou was discovered at the far end of a low and narrow passage. Also, in the Grotte Chauvet the 'Bison Woman' is located at the far back portion of the cave.

There has been a long debate about the gender of the Lionman. In German it is referred to as 'Lowenmensch' which translates as Lion Person and is therefore gender neutral. It is now accepted that the figure represents the head and forelimbs of a female Mountain Lion on the body of a Human male. So this earliest representation of a mythological being echoes the cyborg of Haraway's imagination so far as it is a genderless creature. To quote Haraway 'The cyborg is a creature in a post gender world'.

The figure also represents the transgression of boundaries between the Human and the Animal. This is also mentioned directly within the Cyborg manifesto. This transgression of the boundaries between Human and animal is a constant and recurring theme within mythological and religious sculpture. The Human is enhanced both physically and psychologically by the addition of animal body parts and features. To quote Haraway "The cyborg appears in Myth precisely where the boundary between Human and Animal is transgressed".⁴This seems to be a contradiction to her earlier statement regarding the Cyborg having no Origin in the western sense as the Biblical Eden is also a place of Mythology.

It is possible that the Lionman was also a form of prosthetic device, that it functioned also as a tool as well as a symbol. This altered Human Form may also have been a "telling stick" or in this case a Bone⁵. Within a tribe a telling stick allows the holder to speak freely in an uninterrupted fashion. A form of democratic right to speak in oral traditions and so becomes a prosthetic device for controlling and governing group behaviour and communication, a form of psychological device.

The Lionman may have been an object expressing ideas about creation through depicting a form of godlike creature unreal but imaginable. This reflects the traditional science fiction version of the cyborg. The genesis of the cyborg is essentially a creation Myth however the scientific world suppresses all consciousness of its mythical dimensions and so loses touch with the meaning of cyborg evolution.

² Claus Joachim Kind 2014 The smile of the Lionman, Quartar 61 129-145

³ Claus Joachim Kind 2014 The smile of the Lionman Quartar 61 129-145

⁴ Haraway Donna 1985 "A manifesto for cyborgs: Science, technology and Socialist Feminism in the 1980s" Socialist Review 65-108.

⁵ The Lionman A Telling Bone www.lowenmensch.org.

THE VENUS FIGURES

From the beginning of the Aurignacian period on, across Europe and into Asia, a number of female figures carved and formed in various materials have survived. Their general title of “Venus Figures” is probably misleading and the details and purpose of their manufacture open to speculation.⁶ They do however represent an expression of altered (exaggerated) human form, spanning tens of thousands of years and therefore should be examined for any connection to Posthuman Philosophy, aspirations or source of inspiration for cyborg evolution. Psychologically speaking where do these figures come from, what do they represent and what lasting mark have they left on the psyche of humanity.

The figures are characterised by very large breasts, large buttocks and thick thighs. Generally, they are presented as naked but some depict ornamental girdles or chest bands

Contemporary Human enhancement (Breast and Buttock implants) create real Human copies of these sculptures. The aspiration to become a primeval Mother goddess becomes a form of Human enhancement but at odds with the cyborgs inevitable genderless state (according to Haraway). The original Venus Figures may represent an ideal physical form based on good nourishment i.e. over consumption of a bountiful food supply inferring successful hunting. The shape becomes an indicator of social status, almost like the representation of a Queen. As many of the figures are depicted as being pregnant fertility issues are also raised. Reproduction is an issue raised by Haraway in her Manifesto where she views the Cyborg as a creature of replication not reproduction

Also, Haraway wrote the Cyborg Manifesto in reaction to the Feminist view as the mother goddess being an intrinsic figurehead for feminism.⁷

CHAPTER 2: ANCIENT

EGYPTIAN ZOOMORPHIC GODS

I wish to discuss three ancient Egyptian Gods who were represented in Hybrid Human Animal form. These three are Ra, Anubis and Sekhmet. The “Animal Deities” were anthropomorphised at a very early stage in Egyptian history. They were worshipped for the qualities that they were imagined to possess and then these qualities were projected onto the human and represented in hybrid form. The Human is upgraded to a God, thus leading to the creation of the Pharaohs. The Pharaoh does indeed seem to be an early Cyborg prototype. These gods were represented many times in sculptural form using many materials and techniques.

⁶ O.Soffer 2000 “ The Venus Figurines: Textiles, basketry, Gender and status in the upper Palaeolithic” Current Anthropology Volume 41 No.4 pp 511-537

⁷ Haraway Donna 1985” A manifesto for cyborgs: Science, technology and Socialist Feminism in the 1980s” Socialist Review 65-108.

RA

Ra was the ancient Egyptian deity of the Sun. Ra was believed to have ruled in all parts of the created world, the Sky, the Earth and the underworld. He is portrayed as a Falcon and usually with the body of a male human with the head of a Falcon.⁸ Ra is also depicted wearing a Uraeus or a “Rising Cobra” as a headdress and I will return to this later.

Ra was considered to be one of the Primal forces of creation and therefore there are many creation myths associated with him. One Myth relates how Ra had sex with himself and as a consequence spat out two siblings Shu, the god of Air and Tefnut the goddess of moisture. This idea of replication as opposed to reproduction is an element of Haraway’s definition of the Cyborg.

Related in another Myth is the story of Ra losing Shu and Tefnut in the dark wastes of Nun (a primordial ocean of stagnant water). In this story Ra removes one of his eyes, which were detachable, to search for them. By the time the eye had returned with them Ra had replaced it with another. The eye which returned was placed on his forehead where it could rule the whole world, he was about to create⁹. Here we have another example of the replacement and upgrade of bodily parts leading to the creation of new functions and senses, this is within the arena of the Cyborg.

ANUBIS

Anubis was the ancient Egyptian God of death, mummification, embalming, tombs and the Underworld. Usually depicted as a man with a canine head, identified as the African Golden Wolf. Like many Egyptian deities Anubis assumed different roles at different times. In the earliest Mythology he is portrayed as son of Ra.

He is a god who ushers souls to the afterlife.¹⁰

During Mummification rituals monks dressed as Anubis presided and Anubis is associated with purification and transfiguration.

Along with the cyborg the area of cryonics is one of the main physical manifestations of Transhumanism. Cryonics is the low temperature freezing and storage of the human body with the speculative hope that the body may be returned to life at some future moment. Within the mainstream scientific community, it is treated with scepticism and regarded as a pseudoscience. This seems to be a modern-day mythological practice with many echoes of the embalming and mummification practices of the Ancient Egyptians. More importantly the intention is identical in producing the conditions for the eternal preservation of the physical body with a view to resurrection.

⁸ Hart, George (1986). *A Dictionary of Egyptian Gods and Goddesses*. London, England: Routledge & Kegan Paul Inc. pp. 179–182. ISBN 978-0-415-05909-1.

⁹ The Mythology of Sleep Kari Hohne Page 41 ISBN 978-09819779-0-4

¹⁰ “Papyrus from the book of the Dead of Ani” Britishmuseum.org. 2012

SEKHMET

Sekhmet's name comes from the ancient Egyptian word SHM which means for power or might. She was a warrior goddess as well as the goddess of healing. She is depicted as having a female body with the head of a Lioness.¹¹

It was said that her breath formed the desert. She is a solar deity and the daughter of RA.

The URAEUS

The Uraeus is a stylized, upright form of an Egyptian Cobra and is a symbol for the goddess Wadjet. Many sculptural representations of the gods show them wearing a Uraeus. The Pharaohs are also always shown wearing this ornament. It can be seen as a prosthetic device conferring power and sovereignty.

THE AZTEC GOD QUETZALCOATL

Quetzlcoatl is the Nahuatl name for the feathered serpent deity of ancient Mesoamerican culture and was the Aztec god of wind, air and learning. He is depicted wearing around his neck the "wind Breastplate". This was a spiralling jewel made from the cross section of a Conch shell.¹²

The earliest known iconographic image of Quetzcoatl is from an Olmec site and depicts shaman with a serpent in the background. For the Aztecs Quetzcoatl was a feathered serpent (much like a dragon) who was both a maker and transgressor of Boundaries. He is also linked to the creation of mankind and as a symbol which represents fertility and rebirth. This is also symbolic for the Human who undergoes rebirth through technology and become a cyborg.

Quetzcoatl is a character who has made his way into many Science Fiction films. He was fictionalized in the 1982 film Q as a monster that terrorises New York City

CHAPTER 3: ETHNIC

MASKS OF TRIBAL AFRICA

Ritual and ceremonial masks are an essential feature of African tribal life. Masks usually have a spiritual and religious significance with certain traits being common to most African cultures. The knowledge of Mask making and the symbolic meaning of each mask is passed down from father to son.¹³

¹¹ Wilkinson, Richard H. (2003). *The Complete Gods and Goddesses of Ancient Egypt*. Thames & Hudson. p. 181

¹² Deborhegyi, Stefan F (1966)"The Windgods Breastplate" Expedition Volume 8 No.4

¹³ African Mask Symbolism <http://www.essortment.com/african-mask-symbolism-63939.html>

In most traditional African cultures, the person who wears a ritual mask becomes the spirit represented by the mask and loses their personal identity. A combination of ritual dance, music and costume alongside the mask come together to create the right conditions for the transcendence of Human to spirit. African masks often represent a spirit and it is strongly believed that the spirit of the ancestors possesses the wearer. During the mask ceremony the dancer goes into a deep trance. The mask becomes a psychological prosthetic, a real means of initiating a transformation.

Dogon masks are used in ritual performances which create another world alongside empirical reality. The world is constructed on a philosophical system which explains metaphysically the origin of man and things. Herein lies the legends and special features of each mask.¹⁴ Likewise each Cyborg would be unique, constructed to perform specific tasks or created to compensate for loss of the original human. They would create new physical meaning, reality and therefore new worlds. One of the most significant masks of the Dogon is in the form of a bird of prey. The features are stylized and resemble the features of a human face. The mask has a headdress constructed in the form of a double cross. This can represent the outspread wings of a bird or as a human figure and the symbol of creation.¹⁵ This mask acts as an addition to the human which gives the wearer extra powers and enhanced abilities. It is a simple form of technology that is merged or temporarily fused onto a person to perform a specific function. Here we are in the territory of the cyborg.

One of the possibilities for the future development of Cyborgs may be to act as protectors, either of individuals, whole populations or ideas. There are masks made by the Northern Dan tribe that represent messengers or couriers and they watch over the village and protect it from evil spirits, enemies and evil beasts. These masks have anthropomorphic forms but are essentially birdlike.

The forms and symbolism of these masks and other African sculpture found its way into Twentieth Century art via artists such as Gauguin, Picasso, Modigliani and others.

CHAPTER 4: TWENTIETH CENTURY

TWENTIETH CENTURY SCULPTURE

By the end of the Nineteenth Century Primitive art from many cultures was finding its way into museums across Europe. The word Primitive is derived from Latin and means first of its kind.¹⁶ Interestingly it is therefore a term which can be applied to the genesis of the cyborg in our current time.

Matisse introduced Picasso to Primitive art through a small African Sculpture.¹⁷ Subsequently Picasso went on to develop an interest in masks from the Fang tribe. In turn these were a direct influence on his painting "Demoiselles D'Avignon" of 1907 which is probably Modern Arts most famous example of the appropriation of Primitive art.

¹⁴ Germaine Dieterlen Masks and Mythology among the Dogon African Arts Volume 22 issue3 p.34-88

¹⁵ Germaine Dieterlen Masks and Mythology among the Dogon African Arts Volume 22 issue 3 p.34-88

¹⁶ Online Etymology Dictionary 2001-2020 Douglas Harper

¹⁷ William Rubin Primitivism In Twentieth Century Art The Museum of Modern Art New York ISBN 0-87070-534-2

ROCK DRILL by JACOB EPSTEIN

Jacob Epstein's "Rock Drill" was first completed in 1913, just before the outbreak of the First World War. It combines an industrial rock drill (found object) with a carved plaster figure and was described as being the most powerful vision of Radical Modernism.¹⁸ This vision is of a Cyborg man machine representing an industrialized non-human. The piece was originally conceived to be Kinetic thus further emphasising the robotic world of Science Fiction. The word Robot however first made its entry into language in 1920 in a science fiction play by Karel Capek. The word Cyborg first appeared in 1960 by the scientist Manfred Clynes. So do we have here an early example of sculptural representation influencing the concepts of Science Fiction?

In his autobiography Epstein wrote "Here is the armed, sinister figure of today and tomorrow. No Humanity, only the Frankenstein monster we have made ourselves into".¹⁹ Thus over one Hundred years ago summing up the concerns and fears of many people today with regard to Robots, cyborgs and Artificial Intelligence.

CONSTRUCTED HEAD NO. 2 by NAUM GABO

Constructed Head No. 2 was made from intersecting planes of plywood, it was completed in Norway during World War One. Before the outbreak of war Gabo had travelled to Paris and seen the paintings of Braque and Picasso, so had certainly witnessed directly the effects of African tribal art on Cubist painting.²⁰ This work strongly echoes the forms and appearance of a number of types of African tribal masks particularly from the Dan tribe. At the same time, it provides a basis for a Robot aesthetic. It is engineered and constructed manufacture combined with a futuristic aesthetic paves the way for many Science fiction representations of the Robot Cyborg including for example C3PO from Star Wars.

Interestingly this work was made at almost exactly the same time as Epstein was creating the Rock Drill figure in London. Constructed Head No.2 had a great impact on many artists and predicted the functional aesthetic of Constructivism and greatly influenced much Abstract Art.

The work stresses the disintegration between solids and the surrounding space and this echoes certain Posthuman concepts of the Body and its relationship with the environment.

CYCLOPS by EDUARDO PAOLOZZI

The Cyclops in Greek mythology was portrayed as a huge, violent one-eyed monster. They were responsible for creating the Thunderbolt for Zeus. "Cyclops" by Paolozzi is created in Bronze using quantities of mechanical detritus from the modern world. It combines a flesh like body with a multitude of inbuilt mechanical parts.²¹ It was completed in 1957 and so once again we have a depiction of a cyborg before the word was first used. It was purchased by the Tate Gallery in 1958 who describe this work as an "iconic comment on the condition of man in the nuclear age"

¹⁸ Jeanne Willette 2016 Jacob Epstein and The Rock Drill Art History Unstuffed

¹⁹ TATE Art and Artists Sir Jacob Epstein Study for The rock Drill

²⁰ Naum Gabo Constructed Head No.2 The Art Story,Org

²¹ TATE Art and Artists Cyclops Sir Eduardo Paolozzi

THE INTERRELATIONSHIP BETWEEN SCULPTURAL IMAGES AND SCIENCE FICTION

Science fiction writing and film making draws on many points of inspiration. Futuristic cityscapes are projected out of existing architecture and sculptural representations provide reference points for characters. Science fiction is itself a genre with a wide footprint encompassing a vast array of concepts and themes. The relationship between Science fiction and Fine art could be the topic of a separate thesis. Many of the stories of ancient Mythology involve fantastical characters acting out their lives in unreal landscapes and may be considered a precursor to the science fiction genre. The Lionman from 40 000 years ago can be considered as a work of Science Fiction.

It is possible to identify the influence of a number of Twentieth century sculptures within works of science fiction. The "Maschinenmensch, a character from the 1927 film Metropolis has a definite affinity with Naum Gabo's "constructed Head No 2". This influential futuristic sculptural work was completed in 1916 and draws on Picassos cubist vision. It is known that Gabo saw cubist works by Picasso in Paris just before the outbreak of World War One.²² Gabo in turn was responding to contemporary scientific concepts regarding solid form and the immediate surrounding environment. Many of Gabo's constructed and kinetic sculptures were made from materials such as Perspex and Aluminium as well as copper and Bronze and again this worked its way into the visual presentation of Films such as Star Wars and Characters like C3PIO.

Another clearly influential work is "Torso in Metal" by Jacob Epstein. This work was formed out of his earlier work "Rock Drill" and is much more widely known than the earlier work. Created as a Bronze cast the sculpture seems to have had a direct influence on the artist H.R. Giger and especially on his designs for the creature in the Alien film series. The forms of the head, visible ribs and metallic finish are drawn from Epstein's sculpture which was at this time in 1970 already known as an iconic image of a futuristic nightmare world. The aesthetics of "Torso in Metal" and "Rock Drill" can be found repeated in a number of Science Fiction films including the character Darth Vader in Star Wars and the Robot in Terminator.

The Austrian sculptor Fritz Wortuba made a number of Head and figure sculptures through the 1950's. Sculpturally very strong and original works, features are reduced to intimate the functions of senses²³. Wortuba's head sculptures have had an influence on the image of the robot and cyborg in Science Fiction film. The bodily forms and head of the Robot in the Netflix series "I Am Mother" are clearly drawn from the forms and proportions of Wortuba's sculpture.

Sir Eduino Paolozzi created a number of brutally Modernist sculptures in the late 1940's and 1950's. A work such as "Tin head Mr Cruikshank" almost looks like a model for C3PIO in Star wars. Paolozzi had a long friendship with the Author J.G. Ballard who was part of the "New Wave" of Science Fiction writing. He wrote post apocalyptic novels such as "The wind from nowhere" in 1961. Another area of Science Fiction clearly influenced by Paolozzi is the illustrative work of artist Ian Mcque. Mcque spent over twenty years working in the video games industry. Some of his most iconic images are of robotized figures that clearly derive from sculptures by Paolozzi such as "Japanese war God" or "The Philosopher" from 1957.

The world of Science Fiction has a particular relevance for my thesis as it acts as a bridge between the world of sculptural objects and advanced developments in science and technology and their associated philosophies. There are many examples of the impossible imaginings of artists and writers, under the guise of science fiction, becoming actual reality. Jules Verne published, in 1865,

²² Naum Gabo Constructed Head No 2 The Art Story

²³ Peter Selz 1959 New Images of Man MOMA Doubleday, Garden City, New York.

“From the Earth to the Moon” a story about a manned moon expedition. This feat of the imagination was acted out for real a century later in the command module Columbia. In 1913 HG Wells wrote his novel “The world set free” in which he envisions Nuclear weapons. Leo Szilard read this work of fiction in 1932. In 1933 Szilard conceived the nuclear chain reaction and his work went on to influence the development of the nuclear bomb.²⁴

There are of course countless other examples but the point is that the ability to imagine something gives it the impetus to happen. It acts as an inspiration and direction for scientific research and technological development. Works of the imagination do not predict the future; they give form to it.

This idea is further reinforced by certain philosophies of design such as Speculative Design and Design Fiction. Design Fiction creates scenarios where current knowledge and technical realities can be projected into the future based around narratives and fictional objects. The term Design Fiction was first used by Bruce Sterling in 2005 and the idea reinforced by Julian Bleeker in 2009.²⁵ Bleeker proposes the question “how can science fiction be a purposeful, deliberate, direct participant in the practice of science fact” In many ways this involves a prototyping of other worlds, experiences and contexts for life and involves a combination of science fact, design and science fiction. It seems to me that the difference between Science Fiction and Design Fiction is that Design Fiction is trying to consciously shape the future world. Science Fiction imagines a future world but Design Fiction is proposing and creating a bridge to that world. The arena of Science Fact shapes and evolves the present moment with experimental work that offers possibilities. These possibilities are more fully and speculatively explored through the work of Science Fiction and Design Fiction.

PART TWO: THE ORIGINS OF POSTHUMAN IMAGERY

CHAPTER 5: DEFINING POSTHUMANISM

Before making any critical analysis of Posthumanism it is necessary to define it. Posthumanism is an umbrella term for a number of different philosophies including Transhumanism, Critical Posthumanism, Cultural Posthumanism and Post Dualism to name a few. Transhumanism has its roots in the Humanism of the Enlightenment. The Enlightenment was a philosophical and intellectual movement that came to prominence in the eighteenth Century. A number of specific ideas can be attached to the Enlightenment including the evidence of the senses and the sovereignty of reason as the source of knowledge.²⁶ Science played an important role based upon Empiricism and rational thought. Humanism stems from this and places Man at the centre of the world emphasizing the value and sovereignty of human beings. It is possible to trace humanist beliefs back through the renaissance, medieval Islam, ancient Greece and the Far East. Pramod K Nayar defines the Human, in the Humanist sense, as being autonomous, self-conscious, coherent and self-determining. This Human is accorded Human rights, Human dignity and is a product of the Enlightenment with its

²⁴ Richard Rhodes (1986) “The making of the Atomic Bomb” New York Simon and Schuster ISBN 0-684-81378-5

²⁵ Design Fiction A short Essay on Design, Science, Fact and Fiction. Julian Bleeker <http://www.newfuturelaboratory.com>

²⁶ Outram, Dorinda (2006) »Panorama of the Enlightenment” Getty Publications p.29 ISBN 978-0892368617

associated morality ,ethics and responsibilities. This rational approach distinguishes him from all other forms of life.²⁷

TRANSHUMANISM

Max More made a definition of Transhumanism in 1990 “Philosophies of life (such as extropian) its currently human form and human limitations by means of science and technology, guided by life promoting principles and values.”²⁸

Cary Wolfe described Transhumanism as an intensification of Humanism, “Exploring the transcendence of the human body through technology so that humans may be faster ,more intelligent, less disease prone and live longer” .Transhumanists believe that the current state and nature of the Human being is possible to improve using technological and scientific methods. The idea of Morphological freedom is also a key belief within Transhumanism.

The classic and most obvious physical extension of Transhuman philosophy is the Cyborg which is short for cybernetic organism. The cyborg first made its way into science fiction literature after the First World War. Writers such as Jean de La Hire, Edmond Hamilton an C. I. Moore all make reference to enhanced and altered beings in their stories. The Cyborg is often portrayed as a symbol of ‘Techno Optimism’. Techno optimist belief proposes that the world can be continuously improved and upgraded by the correct and ethical use of science and technology leading to longer, better and more fruitful human lives. This belief is however counterbalanced by the use of Cyborgs in Science Fiction to represent technology becoming uncontrollable and destructive. An example of this is to be found in the Terminator films and can be referred to as Techno pessimism.

CRITICAL POSTHUMANISM

In the introduction of Posthumanism Nayar refers to Critical Posthumanism as “the radical decentering of the traditional, sovereign, coherent and autonomous Human in order to demonstrate how the Human is always evolving with, constituted by and constitutive of multiple forms of life and machine”. Therefore, Critical Posthumanism rejects the idea that Humans are unique creatures (Exceptionalism) and that Humans have the right to control the natural world (Instrumentalism). This in turn critiques the humanist and Transhumanist centrality of reason and rationality. Nayar further defines this as “what we understand as completely Human is therefore the consequence of Hybridization and exchange of material and immaterial data, such as the Genetic Code, across species ,skin and function of animals, plants and Humans.”²⁹

CHAPTER 6: PHYSICAL MANIFESTATIONS OF THESE PHILOSOPHIES

THE CYBORG

Cyborg origins are discussed by Scott A Midson, In Christian Mythology Humans are made in the image of God which indicates that Humanity is somehow above and separate from other creatures

²⁷ Pramod K Nayar, 2014, “ Posthumanism” Polity Press ISBN-13 :978-0-7456- 6240-4

²⁸ Max More 2013 “The Transhumanist Reader” Wiley Blackwell ISBN 10:1118334310

²⁹ Pramod K Nayar, 2014, “ Posthumanism” Polity Press ISBN-13 :978-0-7456- 6240-4

and the natural world.³⁰The Cyborg however makes a challenge to this notion. Haraway further states that the Cyborg is not part of any Genesis or creationist myths.³¹However Humans have been creating images of enhanced and altered Humans for at least 40 000 years with these creations probably having a direct link to mythological stories. The cyborg challenges fundamental ideas about what it is to be Human but I would argue that this challenge to Gods divinity as the creator is reflected in prehistoric beliefs and the expression of those beliefs.

The term Cyborg was first used in 1960 by Manfred Clynes and Nathan S Kline to refer to an enhanced Human who could survive extra-terrestrial environments. Cyborgs, within the genre of Science Fiction have been portrayed in many ways. The usual form being a recognizable human with visible added mechanical parts but has also included representations that appear as more Human or more Robot. A wider definition of cyborgism includes the use of any kind of prosthetic device by any form of organism.

There are a number of examples from Ancient History which depict the use of prosthetic attachments, both in reality and symbolically. Depictions of Pharaohs from Ancient Egypt include a number of symbolic features including for example the Uraeus, an upright Cobra emerging from the forehead, acting almost as a third eye and with a direct connection into the brain.³²A contemporary parallel can be found with the sensory device implanted into the head of British artist Neil Harbisson. Harbisson is a co-founder of both The Cyborg Foundation and The Trans-species Society³³.The Uraeus transforms the wearer into a Trans-species Human, its symbolic qualities making it far more than just a piece of jewellery.

Scott Midson states: "Cyborgs bear a close proximity to the Human whilst altering it. This alteration causes unease but also awe, something to wonder at."³⁴This is also found in our Hybrid images from the past and we do not leave our history behind but carry it with us like a snail carries its shell, a house like prosthetic. Something we inhabit and that lives in us. This is how our images from the past, stretching back 40 000 years, manifest themselves both philosophically and physically today.³⁵

THE POSTHUMAN HYBRID

In the last few decades many biological discoveries have been made regarding DNA and Genomes. New Bacteria have been invented and digital technologies have been refined and miniaturized. The application of this knowledge is beginning to stretch the definition of the Human. We are entering an age when the biological form of the Human can be genetically created leading to the possibility of a limitless number of new species that defy normal categorization. The transgression of these boundaries is evident in a multitude of Mythological creatures from the past. These may take a benign form such as Angels or the Pegasus but usually manifest themselves as Gorgons, Minotaurs and Chimeras. The creatures of more ancient cultures usually represented Gods and were often

³⁰ Scott A Midson The Cyborg and Human Origins, creatureliness and Hybridity in Theological Anthropology

³¹ Haraway Donna 1985 "A manifesto for cyborgs: Science, technology and Socialist Feminism in the 1980s" Socialist Review 65-108.

³² Uraeus Egyptian Gods.Org n.d web

³³ Neil Harbisson Cyborg Arts www.cyborgarts.com

³⁴ Scott A Midson 2015 The cyborg and the Human: Origins, creatureliness and Hybridity in Theological Anthropology <http://www.manchester.ac.uk/escholar/uk-ac-man-scw:289221>

³⁵ Scott A Midson 2015 The cyborg and the Human: Origins, creatureliness and Hybridity in Theological Anthropology <http://www.manchester.ac.uk/escholar/uk-ac-man-scw:289221>

simultaneously benevolent and vengeful. The Lionman sculpture from Germany is depicted with a smiling face, A hybrid monster that seems almost natural and at ease. The product of a dream rather than a nightmare.

Lucille Desblache states "Contemporary cultures, which fundamentally reassess lines of separation and valorise the strange and the monstrous, therefore depart from the myths upon which our civilisations are built".³⁶ There is indeed a good deal of fear and uncertainty with regard to the breaking down of the Human Animal boundary to produce new forms of life or Posthuman humans. In the ancient world these Hybrids were worshipped as Gods and oversaw all areas of life and death. Is the modern fear the same, that we will create forms of life which demand worship and will control everything. This represents a new conceptualisation of the Human and is at the core of Critical Posthumanism. These redefined boundaries of the human give rise to a number of disciplines including Disability studies, animal studies, monster studies, cybernetics and consciousness studies. Haraway discusses boundary conditions and rates of flow across boundaries as areas to be controlled and as a defocussing of the integrity of Natural objects.³⁷ She discusses control strategies in a world in which no object, space or body is sacred in itself. The creation of a hybrid creature proposes the transgression of these boundaries as an ethical or moral question with as much relevance to genetic engineering (CRISPR Technologies) as to Cyborg creation.

CRYONICS

Although cryonics is not at the core of my discussion here it does merit a few notes. Cryonics is the practice of deep freezing the body with the hope that future generations will have the technological capability of resurrecting it and restoring life. The principles were first scientifically proposed in 1962 by Robert Ettinger in his work *The Prospect of Immortality*. Various forms of suspended animation are depicted within the realm of Science fiction.

The equivalent to Cryonics finds its manifestation within the Ancient world in Dynastic Egypt. In ancient Egypt the embalming process required the removal of all of the organs except for the Heart which was required for the "Hall of Judgement". This can be contrasted with the world of Cryonics where the brain is considered to be the most important organ for preservation. Just as in the ancient world where animals also underwent the mummification process the world of cryonics is also available for pets. Cryonics is indeed a reinvention of past practices whereby the aspirations, hopes and fears of Humanity find expression through material acts.

CHAPTER 7: PREDICTION, SPECULATION AND FURTHER

We know it is impossible to predict the future, this is why science fiction writing can be so compulsive and also often disappointing. However, there are a few areas into which we can delve further to shed some light on the possibilities.

³⁶ Lucille Desblache *Hybridity, Monstrosity and the Posthuman in Philosophy and Literature Today*

³⁷ Haraway Donna 1985 "A manifesto for cyborgs: Science, technology and Socialist Feminism in the 1980s" *Socialist Review* 65-108.

XENOTRANSPLANTATION

Xenotransplantation can be described as the transplantation of living organs, tissues or cells from one species to another. There is a long history of unsuccessful attempts at trans-species surgeries throughout the Twentieth Century with the first success occurring in 1950. Currently Xenotransplantation is mainly restricted to identifiable medical needs such as cancer, liver failure and Diabetes etc .In recent years CRISPR CAS9 technology has been introduced into the field of Xenotransplantation which has resulted in a faster ability to genetically manipulate pigs. This speeded up genetic manipulation can now be transferred to Humans.³⁸The question immediately arises regarding how far and in what direction can Human mutation technology and Trans-species modification be taken. In short, we arrive at what is generally termed a monster. From historical fiction the most obvious place to begin is with Frankenstein monster. Created by Mary Shelley in 1823 it relates the creation of a human from body parts from various sources. The monster is feared and misunderstood and attempts are made to destroy it.³⁹ One of the themes of the novel is the consequences of defying nature. Interestingly the novel was conceived in the summer of 1816 which was significantly affected by the eruption of Mount Tambora. Is it possible here to make a connection between ecological disruption and the creation of monsters.

Human-animal hybrids stretch back far into time and across all cultures. Their impact upon the human Psyche . "Xenotransplantation and contemporary developments deliver us a bit closer to Human-animal hybridity and monstrosity than mythical images of metamorphoses"(Mary Murray)⁴⁰. This may be so but the image of hybridity ,planted in the modern mind from images as old as 40 000 years ,leads to the possibility in reality .The work of modern science is the indirect product of ancient Mythology and more recent Science Fiction.

CYBORGISM

Neil Harbisson is a 32 year old Cyborg. He has a surgical implant on top of his head and directly connected to his brain. This implant converts light waves into sound allowing him to hear colours. He has, overoptimistically, stated that within 15 years everyone will have some form of technological enhancement.⁴¹The first realistic steps toward this will be the implanting of chips beneath the skin to replace devices such as keys and mobile phones.

Anders Sandberg writes that the "right to freedom requires a right to morphological freedom"⁴²implying that the very future of democracy is connected to cyborgism. Recent history demonstrates the ever-decreasing cost of new technologies. So, whilst in the near future technological enhancements may be prohibitively expensive this will certainly change. Once the procedures are cheap, we may enter a world where they become compulsory with an exponential increase in development and application. Coupled with the Postmodern and Posthuman critique of what constitutes a normal body Cyborgism looks set to continue. So, from the present reality of Bionic hearing and Bionic sight to the near future of Brain Machine interfaces with implications for

³⁸ Mary Murray, 2011, Xenotransplantation, xenozoonosis and contemporary imaginings of Monstrosity. SITES Vol. 8 No 1

³⁹ Stableford Brian(1995) "Frankenstein and the Origins of Science Fiction" Anticipations:Essays on early Science Fiction and its precursors. Syracuse.

⁴⁰ Mary Murray, 2011, Xenotransplantation,xenozoonosis and contemporary imaginings of Monstrosity. SITES Vol. 8 No 1

⁴¹ Neil Harbisson Cyborg Arts www.cyborgarts.com s

⁴² Anders sandberg Morphological Freedom Transhuman Reader

telepathic modes of communication maybe we are all on the brink of becoming Cyborgs. In a recent article in the "Army Times" a US defence spokesman declared that the US military will be operating augmented soldiers by 2050. Ear, eye, brain and muscular enhancement will all shortly be feasible. Of special interest to the military is the use of direct neural enhancements which would allow soldiers to control drones and robots directly through thought alone. An ongoing issue here is what happens to these soldiers when they re-enter normal civilian life. In a short time we may have actual Posthuman cyborgs living amongst us with all of the ensuing social, ethical and legal concerns that would follow.

MIND UPLOADING

The Human Brain is a complex organ comprising of billions of nerve cells called Neurons all interacting with each other. The basic premise is that the Human mind is the result of information processing by these neurons. Learning, memory and consciousness are therefore the result of physical and electrochemical processes subject to analysis and replication. Mind uploading makes no reference to images of the physical body as this body is removed from the ongoing processes of consciousness. The motive behind the technology is, of course ,the philosophers stone, or immortality .The knowledge of the stone was passed from God to Adam and subsequently passed down. Once again we find the modern application of new technologies echoing the mythological realm of origin stories .One other interesting property of the Philosophers stone is its ability to create clones or Homunculus .The ideas of the modern world are created out of the mythologies of the ancient world.

On another level the replacement of the human mind is represented by Animal human hybrids where the human head is replaced by that of an animal(such as the Lionman or many ancient gods for example).This may be stating that the essential part of the Human is the soul and it resides in the body and that the mind is replaceable .If in reality this is actually the case then uploading the mind is not relocating the human to a computer but only one of the elements that make us human. When I ask myself where am I located the answer seems to be more in the Heart than in the mind. Where am I in the body? It is an interesting question.

CHAPTER 8: IN CONCLUSION

We have seen that "The Lionman" sculpture is the oldest piece of figurative sculpture known to humanity. It depicts a hybrid creature and therefore represents a very ancient and archetypal impulse within humankind .It is the oldest example we have but inevitably these images from the human mind go back much further .It is unreasonable to suppose that we have uncovered the very first and original piece reflecting these concepts. The use of animal human hybrid images was widespread across the ancient world and therefore represents a universal impulse. The natural and observable qualities of these animals is transferred to the Human in a very unnatural way. The image is of an enhanced being. A being created in a godlike act. Nature and evolution are remodelled and repurposed and the knowledge and realization that this is possible stems back maybe as far as the creation of humanity itself. Is it the latent knowledge that humanity itself may be the result of the genetic remodelling and selective breeding of a more primitive primate? Man is an unnatural

creature and the fact that we have the word “nature” in our language demonstrates this. We have a concept of nature because we are apart from it.

The Enlightenment and its concentration on Humanism and a rational and scientific approach to the world buried a certain amount of what it is to be human. Critical Posthuman philosophy seeks to redefine the Human as not being an exceptional creature but an equal part of an organic whole who does not have the right to control the natural world. On the surface this seems to connect Humanity to a more encompassed and cohesive relationship with the environment. On the other hand, there may be an intrinsic flaw in this way of thinking based on the possibility of Humanity’s unnatural position in the world as expressed through a continuous stream of ancient images of Hybridity and altered human form.

The role of sculptural images in this human story has been key to its development. Carl Jung stated in the work “Man and his Symbols” “Consciously or unconsciously the artist gives form to the nature and value of his time, which in their turn form him”.⁴³ The desire to symbolize transcendence is at the root of hybrid images and in our future world actual hybrid creation. It is not so easy in contemporary human existence to understand or appreciate the symbols that come down to us from the past. These symbols manifest themselves in dreams as images. These images can then be recreated in concrete form. Birds are a clear symbol of transcendence, such as the Ibis headed Thoth from Egyptian mythology. In the modern world man has created jet planes and space rockets to fulfil the same physical embodiment of the transcendent principle. These principles of transcendence are also connected to enhancement and the future evolution of the cyborg.

Finally, it may be possible to use ancient objects from the past to understand and predict the future. The opposite side to this proposal, its mirror image, is that we can use modern developments and philosophies to reconstruct stories from the past and keep projecting backwards to the very birth of Humanity. Maybe we can understand eventually who we are.

⁴³ Carl g. Jung (1964) “Man and his Symbols” Aldus Books Limited, London. ISBN 0-904-04124-7

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