

Extension of Body in the Cyborg Fashion for the Digital Era

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I . Introduction

The advent of a computer or cyber culture is changing our human identity internally in this 21st century, while suggesting a new or 'digital' aesthetics. Cyber environment is establishing a 'human body combined with technology'. Our post-modern age witnesses the hybrids of art and life, men and machines, masculinity and femininity, and of cultures, and in the end the advent of a cyber society. The main actors of such a cyber society, namely 'cyborgs' feature a 'post-corporeality' or the new physicality with a *dim border between machine and human being*.

The purpose of this study is to review the human bodies being changed or expanded by VR technology and thereupon, probe a variation of human identity or a concept of 'hyper'¹⁾ body.

Thereby, examine the interrelationship between body and clothes as an extended skin, and thus suggest an aesthetics of the cyborg fashion or the post-corporeality which extends the topology of the corporeality.

This study will be valuable and significant in that it suggests the alternatives for the post-corporeality in the digital age of cyber culture as well as their grounds, and thereby, probe the aesthetic values of the technoculture.

To this end, the theories of human body centering around the cyborg ones combining man and machine will be reviewed. Furthermore, the concept of 'grotesque' be assumed to discuss Julia, Kristeva's "abjection theory" in view of the psychoanalysis, technological development and fashion technologization, and ultimately, the aesthetics of the post-corporeality will be examined.

In the 21st century digital cyber culture, an organic human body is being converted by the electronic technology into an electronic body. In this course, a new rhetoric of human body symbolizing a feminine grotesque body is emerging, while a crisis of identity is being talked about.

The concept of 'grotesque' based on the ideas of corporeality and existentialism forms the ground for the arguments about the post-gender being raised in the cyber culture society, while suggesting a grotesque concept of corporeality imploding the

dichotomy between male and female.

Thus, new aesthetic expressions of digital cyber method are witnessed not only in social, cultural and art areas but also in fashion.

Based on such theoretical backgrounds the aesthetics of post-corporeality shown in the cyborg fashion will be discussed by dividing the extension of corporeality into its external and internal ones.

In order to set theoretical backgrounds for the aesthetics of post-corporeality shown in the cyborg fashion, the primary literature, namely those dissertations and studies regarding the mental psychology dealing with the implications of corporeality and cyborg will be reviewed together with such secondary data as photo collections. In addition, the relevant data uploaded on web site Time will be quoted as specific cases.

II. Theoretical Background

1. Corporal Extension

In comparison to the 20th century when human beings were overwhelmed by machines and materialism, the 21st century or the techno digital age will witness the machines and men being imploded in the same dimension. Accordingly, the concept of corporal extension is emerging as new corporal aesthetics or as part of the post-modern indeterminacy. Thus the border between men and machines is collapsing only to obliterate the gender division. Such a gender trouble or 'plural identities' may well be translated into post-genderism featuring the aesthetics of the cyber culture.

Tools, machines, instruments developed by culture and science will serve to extend the roles and functions of human body and to even become its parts²⁾. The implications of corporal extensions tend to differ depending on ages, societies or cultures. *The traffic means and footwear extend human legs or feet, while cameras, magnifiers, telescopes and spectacles extend even replace the functions of human eyes.* In addition, such inventions as gloves, bullet-proof jackets, wigs or hearing aids complement and also protect function of each of the correspondent body parts. In the same context the secondary skin or clothes may well be the extensions of skin and hair, and likewise, their functions and roles have expanded over time.

In this study, the implications of such corporal extensions will be discussed in view of the 'post-corporeality' trend which can in turn be interpreted into cyborg and virtual corporeality concepts.

1) Theoretical Implications of 'Post-Corporeality'

In post-modern digital society, there may be a need to review the concept of corporeality in a wider view of 'technology-corporeality' relationship using the science and technology in the categories of domination, classes, statuses and social relations. In other words, the post-modern epistemology of cyborg which features post-sexuality, post-corporeality and absence of labor serves to realize the virtual space³⁾ and sense of cyborg. Such an artificial remodelling of human body evokes a new argument about the concept of corporeality centered about cyborg.

The cyborg which could be the farthest edge of 'post-corporeality' is a product⁴⁾ made from 'post-gender'; it is an extension of human body by technology. Accordingly, 'post-corporeality' may be equated with the vanishment of the border between self and others.

The 'post-corporeality' implying the vanishment of corporeality as human body may be divided in light of its materiality into cyborg and virtual body. The cyborg as post-corporeality connotes a hybrid of man and machine. Meanwhile, the virtual body which may be experienced in the VR (virtual reality) implies the extension of nerve network connected with a cyber space.

Davis Tomas, Mike Featherstone and Roge Burrows categorizes cyborg and virtual(cyber) bodies into 'post-corporeality'; their cyborg is a body attached to the high-end machines. In other words, it is a combination of organic human body and inorganic machine or electronic devices transplanted into the former. The virtual or cyber body is body converted into information bits. After all, their categories are 'machine-body' cyborg and 'image-body' virtual body. The latter has no organic form but is stored as human spirit in the computer software.

The cyborg body may again be divided into combination of prosthetic cyborg and external human body, and artificial organ-transplanted cyborg. At any rate, both categories of cyborg are being developed by the medical technology transforming the human body externally as well as internally.

The virtual body occupying the human mind and thereby, incapacitating the body may be a body existing in a virtual space of metaphor, and therefore, separating the human mind from its body. Accordingly, the virtual body may well provide for the alternative, and grounds, for the post-corporeality inevitable in the cyber space. Thus, the concept of post-corporeality assumed on 'absence of conventional body' has produced such digital corporal aesthetics as cyborg and virtual body.

(1) Cyborg

The word 'cyborg' is derived from the compound of 'cybernetics' (grasp the key of navigation)⁵⁾ and 'organism'⁶⁾. This leads to a conclusion that an artificial human

body extended by human intelligence. Namely, it is a hybrid of man(organism) and machine which function together.

The term 'cyborg' was invented in 1960's to indicate a 'self-controlled man-machine system' and is being used now to mean the main actors in the digital cyber age.⁷⁾ Such a cybor signifies the issue of 'post-humanity' or 'death of ego' which was raised as core image in the age of popular culture as well as in that of post-modernity. If we should be obliged to redefine the cyborg in a broader sense and, it may be seen as combination of organism and mechanicality due to the technological development.

In this study, the concept of 'cyborg' shall be defined in the broader sense to include those people using prosthetic leg, arm or other artificial organ as well as those depending on medicines for life, those wearing glasses or contact lenses, and the computer netizens interfaced with the artificial intelligence circuit.

In 1960 a scientist Manfred E. Clynes⁸⁾ foresaw that due to the development of medical technology, such alternative artificial organs as joints would be more and more used only to enhance the interdependency between organism and machines. Moreover such mechanic devices would become functional parts of the human body.

Donna J Haraway⁹⁾ described cyborg as "personification of the future" restless due to ambiguous hybrid combination but continued differentiation of parts, which may imply a compound simulacres and originals, and science fiction and social reality. In all, Cyborg serves to obliterate the boundary between human and machine because the two are combined into 'oneness'.

Furthermore, Donna J Haraway suggested that by the end of the 20th century due to the development of science and civilization, borders would be collapsed between men and animals, organisms and machines, and between physical and non-physical ones; these three categories have been the very traditional within the conventional paradigm. Thus, The cartesian dichotomy is destroyed by the concept of cyborg or combination of organism and machine.

The post-human cyborg is a human being with no expression, sentiment and consciousness who has lost his identity but helps to create a new identity such as internal or electronic one.

Such a cyborg has two conflicting images¹⁰⁾; one is masculine, dark, destructive, and the other is liberating and feminine (or sexless). In all, it shows a grotesque and abject essence.¹¹⁾

(2) Virtual Body

The advent of the cyber culture has resulted in 'virtualization' in almost every area. In this study, we will focus on one example or 'virtualization of human body'.

In the cyber age, the digital technology serves to emphasize the sense which

can be shared between computer and men, while the absence of corporeality in the cyber space gives way to a virtual body. As a consequence, a new aesthetics of corporeality has been highlighted as post-corporeality.

As Marshall McLuhan argued, "technologies become humanized" in the cyber space. Such a cyber space is the designed by the futuristic technology wherein users can quasi-experience the virtual reality.¹²⁾ Such a quasi-experience implies that we could experience things using our five senses owing to the development of technology. For example. Telephones uses our audible sense, televisions rely on our visual and audible senses, remote control devices depend on our sense of touch and sentiment in addition to the virtual extension of our motion-wise interactions.

As it becomes more and more virtual or 'hyper', the human body which has distinguished ego from others in a materialistic way is losing its border.¹³⁾

On the other hand, the cyber space or a simulacre virtual space which can be experienced only by our mental activities must be a futuristic technology interlocking men with machine.

The virtual body existing in such a virtual or a cyber space becomes the main actor who establishes the physics law, behavioral mode and culture of the virtual world, and crosses the border between real and virtual worlds, while maintaining multiple identities or bending its gender and thereby, extending the corporeality and simultaneously obliterating the real body. In this electronic age with the mechanic civilization upheld to the utmost, the virtual reality becomes conspicuous with human five senses interfaced with the machine. The result is an enriched living.

<Fig. 1> shows data gloves allowing for our sense of touch. They are the tools transcending time and space.



<Fig. 1> data gloves, techno textile, Thams & Hudson, United Kingdom, 1999

2) Technologization

Today, the scientific technology affect, as Alvin Toffler expected in his "Third Wave", every area of our lives, converting our cultures into a scientific one. Such a technologization tends to bind human body, transforming our culture into a high technology one.

The development of technology has enabled human body and machine to be combined, while helping us to overcome our corporal defects or limit and thereby,

extend our body. The mechanic technology extends human organs, awakening us of a new value of life, and on the other hand, combines art and science, body and science, and even fashion and science.

Use of the digital media, particularly computer media helps to open a new age of technology, and pave a way to the evolution of men-machine interface. Such a situation hints 'technologization of men' or further expansion of human body.

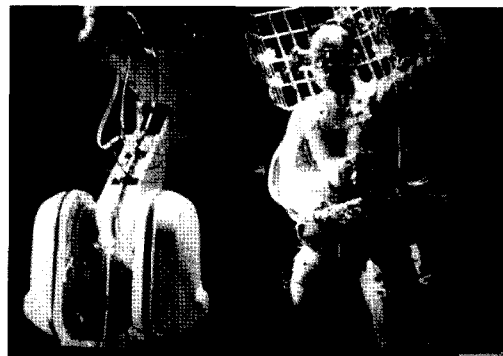
The 21st century will be an age of nano technology suggesting creation and reproduction of life as well as development of artificial intelligence. The result will be the vanishment of distinction between machines and organisms; new materials will be developed to produce artificial and mechanic man and allow for coexistence of artificial and mechanic man and bio-intelligent machine.

After all, the corporeality will be more and more extended with such artificial organs as teeth, joints, arms, legs, heart, eyes and ears owing to the remarkable development of biomedical engineering. Such a development will be closely associated with the nano technology¹⁴⁾, destroying the boundary between man and machines. As a consequence, men and machines will be converged onto a new hybrid or cybernetic organism, namely cyborg.¹⁵⁾

The digitalization of everything leads to a technological fashion with micro technology devices built-in. Cyborg represents a key meaning of 'desire' to climb up to an almighty power using the technology. It may be a corporal technology based on the ideologies of post-corporeality and bio-separation.¹⁶⁾

Stelarc, an Austrian performance artist and professor "at the Carnegie Mellon University,USA" transplanted some silicon chip into the human muscle and thereby, move it via cordless internet. That is, he demonstrated a human body extended with mechanic arm and robot.¹⁷⁾ <Fig. 2>

In other words, Stelarc intended to improve the function of the human body by combining it with machines, and thus, he directed various performance art only to suggest the possibility of electronic corporal extension. The model case was a 'third hand' or an extended body which was formed of uncanny decorations made of such heterogeneous materials as metals, machines and latex.



<Fig. 2> Stelarc, "Scanning Robot / Involuntary Arm", 1992

2. Grotesque and Abject Body or Cyborg

Cyborg is a 'machine-body' re-embodied by combining the two in a mechanic, electronic and artificial way to protect the body¹⁸).

Such a hybrid of man and machine invokes a terror for mechanic and artificial ones. The sense of terror may be a mixed emotion involving the excitement about unlimited development as well as fear of mechanic things. The 'terror' invoked as such may also be explained in a psychoanalytical way.

In this study, the corporal aesthetics of the digital age will be discussed by means of the psychoanalytical approach based on Julia, Kristeva's theory of abjection.

1) Grotesque Body

Since the early 16th century when Francois Rablais mentioned about a grotesque body for the first time, the term 'grotesque'¹⁹) has been reviewed or defined by many scholars against to their social or historical backgrounds.

According to Philip Thomson's book "Grotesque", it means "something invoking uncanny, nauseated but comic and pleasant".

Namely, 'grotesque' does not only imply something that occurs to our brain. Rather, it is associated with the sentiment mixed with something uncanny but comic. The cyborg of our digital age which has been given an electronic identity in cultural terms is our current and future look. Such a cyborg reveals a grotesque body fragmented due to its collision with machines.

In the 20th century, 'grotesque' was defined by W. Kayser from a historic viewpoint and by Jung from a psychological viewpoint, and later redefined by Clayborough within the aesthetic category.

According to Kayser, 'grotesque' is an expression of meaningless, non-personal being and therefore, it forms an alienated world. He argues that any behavior expressing the grotesque should be treated with the irregularity and that it be an attempt to invoke and expel the demonic.²⁰

This cyber culture age characterized by hyper media technology, however, Mikhail Bakhtin emphasizes the folklore-like and democratic features of carnival overlooked by Kayser and thereby theorizes the 'carnival grotesque'. He notes contents rather than forms, and highlights the communicative dimension of art from a post-modern viewpoint. In particular, he suggests a new topic of corporeality based on a post-human concept of corporeality by emphasizing the body and its materiality.

The post-human cyborg transcends corporeality, psychology and gender and features a grotesque corporal aesthetics characterized by collapsed static identity and maximal reproduction and disintegration of technology.

In accordance with the vague logic of projective existence, the human body (organism) tends to pursue a cyborg style possessing an electronic internal identity, while revealing a grotesque and abject aesthetics.

Such a situation implies that the body or a boundary between ego and others in the analogue age is converted by the digital technology into an abject body or grotesque post-corporeality.

2) Abjection

The grotesque body shown in the cyborg fashion connotes a feminine grotesque body resisting to or challenging the physical oppression. It is a reversed gender identity which can be explained by Julia, Kristeva's 'abjection' theory.

She refined Freud's ideas about grotesque into her 'abjection' theory. 'Abjection' implies not knowing about the boundary between ego and others, in other words precedes a unsurmountable terror. Here, the terror becomes a conditional response. It also connotes not only a terror against the disgusting richness of womb but a terror against the primary grotesque derived from the reproduction capacity. Both terrors are suppressed by the super ego.²¹⁾

She generalizes M. Bakhtin's carnival grotesque and J. Lacan's subjective theory to discuss the corporal abjection, which is an image of feminine grotesque signifying a feminine and maternal space "Oedipus" which is before stage.²²⁾

Hence, 'abjection' involves a concept of boundary. It is revealed when it threatens the symbol system by trespassing on the boundary between organism/machine, subject/object and men/supermen. In this sense, the cyborg fashion disturbing the identity, order or boundary may well symbolize the corporal abjection.

Such an abjection can be understood with Western psychoanalysis theory and Oriental Zen concept, and in particular, it may be similar to the 'non-ornamental culture' of the latter.

The aesthetic category of the concept of Zen may be compared with the abjection characteristics of cyborg fashion. The abjection theory seems to be in the same line with such Zen theories as 'beauty of poverty' - suggesting an aesthetics of uncleanness - and 'beauty of non-dualism' ignoring all the dichotomic confrontation between male and female, rich and poor, beautiful and ugly and even between good and evil. In all, both abjection theory and Zen concept champion the collapse of every boundary or distinctions.

Cyborg will be formed when a grotesque body's methods of taking and digesting food, vomiting and excreting and contacting with its outside world are all reversed. Namely, the body will be penetrated into and fragmented so that it is resurrected unspoiled. Such a scheme may be equated with the cannibalism intended to eat the

object to revive its traits internally. In this process, machines and human body will be merged into oneness.²³⁾

Thus, the cyborg re-create a grotesque body which is fragmental and abject. The corporal extension expressing the nihilism of human existence artistically may well be most abject.

Therefore, the researchers believe that we can understand by means of the abjection concept the heterogeneity of humanity being inhumanized in the cyber society and thereby, determine a new corporal aesthetics.

III. Extension of Body Shown in the Cyborg Fashion

Today when the digital culture prevails raising a question about the electronic identity of post-corporeality, a new sense of corporal aesthetics is infiltrating into our world of consciousness. Such a world covers not only culture and art but also fashion.

The century-end beset against the gloomy background and witnessed the cyber punk trying to solve the problem which is caused by conflicts between men and machines with more but focus on men. In the new age men and machines are being integrated to produce a post-corporeality or a third body.

Namely, the body extended technologically and electronically extended body expands and replaces the natural body.

In this digital age when organistic body is being transformed into an electronic one, "cyborg fashion" or "techno fashion", complicated by the cyber images emerges as mode of expression for the younger generation. Thus, the concept of post-corporeality is being applied to fashion.²⁴⁾

The futuristic fashion or cyborg fashion characterized by the extinction of border between fashion and science represents a new type of aesthetics created by computer-based artificial intelligence and virtual reality technology combined. This new aesthetics consist of the simulacres created with a variety of techno materials, colors and renderings and therefore, it is an artificial beauty.

Accordingly, the cyborg fashion in the 21st century of digital technology will be body friendly and body-reproductive, and will feature the collapse of the boundary between body and clothes or 'post-corporeality'. This is due to extension of our human skeleton and muscles beyond fashionable look or desire.²⁵⁾

The digital fashion featuring such a cyborg look reveals an anti-dichotomic metaphor. The difference in natures of organism and machine could be combined to create a new human/electronic (internal) identity. Such a trend means a coexistence

between extinguished humanity and futuristic fantasy or their implosion.

Hence, cyborg fashion will change its form and identity freely to be reproduced. In this sense, it must be a typical meme.²⁶⁾

The current fashion wherein cyborgs are mixed with high-end technological civilization accommodates both physiological and mechanic bodies, while destroying the essence of nature and organisms. It serves to reinforce our body with reproduction, electronics and cyborg. Such a clothing style shows signs of grotesque pleasure and uncanniness by transforming our bodies.

The extension of body by means of cyborg disturbs identity (human/internal identity), order and borders, while a grotesque concept is associated with abjection. So, it is deemed necessary to review the implications of the post-corporeality shown in the cyber fashion by dividing it into internal and external extensions.

1. External Extension of Body

The cultural environment of the digital age suggests a cyber space and virtual reality which features destruction of every border or area, departure from such dichotomy as man/machine, computer/artificial man or body/cyborg, decentralization, obliteration of the traditional aesthetics, and post-aesthetics. Thus, the digital age is witnessing advent of hi-tech futurism culture centered about such cyber space and virtual reality. The cultural environment of the digital age suggests a cyber space and virtual reality.

In other words, the technological advancement serves to create new types of fashion; for example, wearable computer, prosthetics, reproduction and so on are being introduced into the fashion.

In this study, nano technology and wearable computers will be categorized into micro-sopic external corporal extension, while prosthetics and plastic surgery will be included in the macro-sopic external corporal extension.

Now, the body cannot be divisible due to the development of nano engineering. The organic body is unified with electronics and mechanics, and thus, the hybrid body is visualized as inhuman form with electronic or internal identity in both micro- and macro-sopic terms.

Plastic wire, emotional material controlling the body temperature, and fabric textured to feel vibration or movement have the image of expanding the space as if it were an architectural one.

The robot forms made of plastic and metal champion a new sense of aesthetics, namely a mechanic or artificial aesthetics.



<Fig. 3> Eri Matsui,
Creative Fashion,
Seedae Fashion
Design Academy

<Fig. 3>

Just as technology serves to extend the body, so the cyborg or product of hi-tech serves to extend the body. For example, the cyborg fashion using the prosthetics helps to extend the function and space of body simultaneously. <Fig. 4>

This Fig. shows a fashion like a metallic hand redressed; it reveals a grotesque body collided with machines and thereby fragmented.

Here, the grotesque beauty is revealed by the post-corporeality or the cyborg opposing any ideal representation of body, which destroys the dichotomic distinction between man and machine or between male and female only to threaten the symbol system and champion the abjection, extending the body.



<Fig. 4> <http://search.nytimes.com>

<Fig. 5> shows a 'wireless every wear' introduced by the media lab of MIT. The product of the computer revolution extends the body externally but in a micro-scopic way.

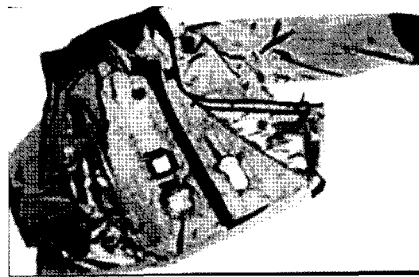
<Fig. 6> shows a jacket developed by Phillips and a casual producer Livies targeting the young generation. It is equipped with MP3 player, headset, etc.

This water-proof jacket named 'ISD+' signifying an industrial apparel is an "electronic apparel" with various computer chips built-in. The wearer will be able to connect himself with the web at any place and at any time. Furthermore, the conductor material will help to check wearer's health condition.

On the other hand, a technology fashion has been developed which has various microminiature technology devices.



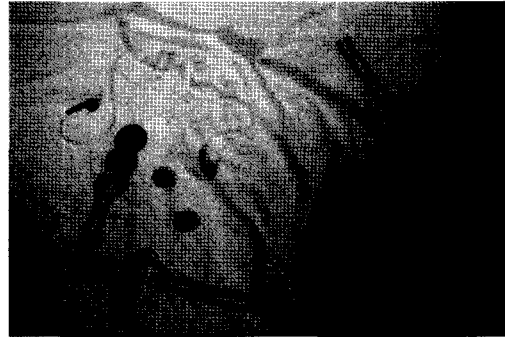
<Fig. 5> MIT : Media Lab , Wearable Computer



<Fig. 6> Pillips and Livies, Wearable Computer : ICD+

<Fig. 7> shows a futuristic T-shirts with a microminiature solar battery and a headphone built-in. This shirts use the high-end devices as accessories. It emphasizes practical uses and outlook simultaneously.

The cyborg fashion enabling us to acquires a transcending or artificial body is subject to machines. The result will be a grotesque and abject body.



<Fig. 7> Techno Textile, Thams & Hudson, United Kingdom, 1999

2. Internal Extension of Body

This chapter attempts to analyze the internal corporal extension featuring 'uncanny', 'anti-play' and 'hybrid' by reviewing the virtual or artificial implications of external corporal extension in both micro- and macro-scopic terms.

1) The Uncanny

The merge of boy and technology causes a terror attributable to a schizophreniac or obsession. Thus, the technological corporal extension leads to an 'uncanny' state of mind because people may feel unpleasant due to the grotesque look.

'The Uncanny' In his essay "The Uncanny"²⁷⁾ sense seems to be caused by the inorganism being enlivened. We may feel unpleasant, terrified and ultimately uncanny when we see an unspecified object moving like a life or resemble it.

The cyborg form mechanizing parts of the body hints a strong life and permanency, while its metallic nature and artificial form invokes a terror because it might be beyond the human existence. Such a hint and sense of terror may be associated with the abjection of cyborg.

The cyborg driving the body to its extreme grotesque causes a schizophreniac, corporal disruption. Hence, the cyborg fashion reveals an "uncanny" causing a horrible terror. Such a terror is associated with an antinomic desire of men towards the mechanic civilization, and therefore, with an undeterminate aesthetics.

The extension of eyesight or the spectacles are corporal prosthetics; they reinstate or reinforce the poor eyesights. Freud²⁸⁾ says that weakening of eyesights represents aging body, so that it might be related with men's terror of emasculation. His theory may well be equated with Kristeva's abjection theory. Both theories seem to suggest that we feel uncanny when we see an inorganism enlivened. Hence, spectacles or glasses extend not only the eyesights but also its sympathetic arena.

The intellectual uncertainty whether the cyborg is a human organism or a machine invokes a sense of uncanny quite naturally.

<Fig. 8> is a spectacle-like monitor invented by the MIT Media Lab. The monitor with a LCD built-in cross the border between reality and virtuality only to expand the sympathetic arena of eyesight.

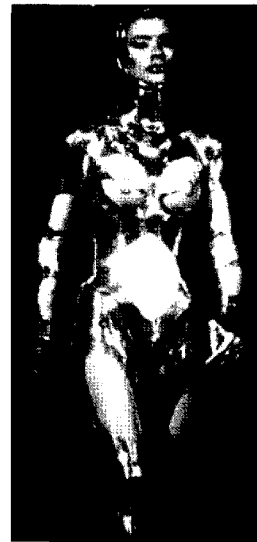
The abjection suggested by the sphinx-like cyborg metaphors a dim border between man/machine or ego/others, while distorting the human identity and visualizing the terror against the grotesque. Such a mixed emotion may be equated with 'uncanny'. Thierry Mugler's cyborg fashion, a hi-tech fashion looking like a robot, invokes a terror against the mechanic transformation of body suggesting a superpower.

<Fig. 9> reveals an 'uncanny' against such an inharmonic corporeality transformed by hi-tech.

The cyborg fashion provides for a ground for the argument about 'post-gender' raised by the post-corporeality trend, and expresses a fragmented abject image of body featuring homosexual, sexual perversion or bisexuality. Such a concept of grotesque corporeality assumes the concept of post-gender denying the dichotomy of man and woman, while invoking a terror against heterogeneity and collapsed border of the traditional concepts.



<Fig. 8> MIT : Media Lab



<Fig. 9> Thierry Mugler,
Fashion Fetish Fantasy,
General publishing 1998

2) Anti-Play

In the term 'Anti-play', 'anti' means 'opposition' or 'exclusion' or 'reverse' or 'neutralize'. 'Anti' used here implies "use of nonsense methods challenging the traditional concepts". In this context, 'anti-play' may be equated with 'anti-beauty' caused by 'anti-particle'.

The play revealed by the cyborg fashion as source of laughter and terror must be 'anti-play' because the laughter and terror are not natural but forced. Here, the terror may be equal to the comic shown in Freud's grotesque, and therefore, its significance may lie in the maximized conflict between two opposing emotions.

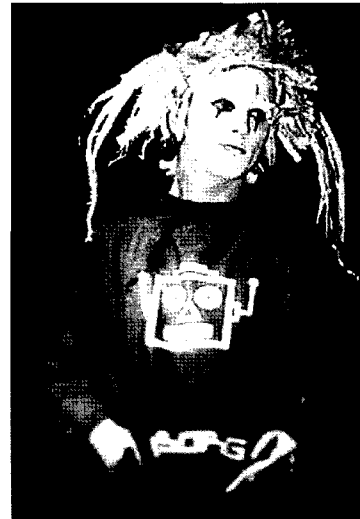
The compound of machine and organic body result in a cyborg, revealing an 'anti-play' effect and abject corporeality and thus, producing some grotesque effect.

On the other hand, the double-faced contradictory structure of the grotesque turns the maximum terror into a play.

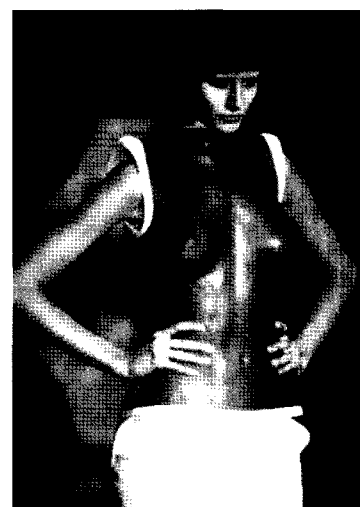
The fashion made by machines and the cool metallic texture maximizes the sense of terror by obliterating the humanity by means of hi-tech, and such a sense of terror induces its opponent or a comic play. Here, we can see a new sense of aesthetics featuring a comic terror. <Fig. 10>

The grotesque shown in the cyborg fashion invoking laughter as well as terror may well be equated with an 'anti-play' because it is a unnatural and forced laughter. Such a laughter may be equal to the terror connoting Freud's play. The collapse of border between men and machines causes a dystopian fear and a terror thereof, while the loss of humanity and total destruction of the human identity metaphor our fear of technology.

<Fig. 11> shows a Givenchy's human skin apparel. The material human skin is made from the silicon cast with some materials. Because the material is a reproduced human skin with the human body shape copied, you may feel an uncanny terror but feel playful for the apparel which crosses the border between human and non-human.



<Fig. 10> Miguel Guri, Moda 99



<Fig. 11> Givenchy, 1999 first view

This is a self-assemble²⁹⁾ expressing a feminine voluptuous beauty, while extending the body by means of a perfect recovery of body from its unstable status.

Such an artificial substitution of forms suggests a grotesque pleasure as well as an artificial beauty through disintegration of original and its copies.

Besides, you will also see a glove-like suitcase for which the shape and functions of hand are extended. The 'bandage look' worn by Looley in the film "the Fifth Element" is an apparel compressed onto her skin with other unnecessary clothing elements omitted. Unlike the above glove-like suitcase extending hand's functions, this bandage look shows an image of well-fit body space.

3) Hybrid

The cool metallic material and cybernetic, mechanic and neutral image may be the metaphors of excitement, expectation and anxiety of the 21st century, disturbing the identities. <Fig. 12>.

The implosion of subject/object, machine/organism, cool/warm and matt/polished in the cyborg fashion seems to express the mixed emotions of yearning and anxiety towards the future in a complicated way.

Such expressions imply post-corporeality and post-gender as well as collapse or disintegration of human identity, and cause the subject to be dismembered by means of computerwear perversion. In



<Fig. 13> Givenchy,
Fashion News,
1999. 6



<Fig. 12> Samsung fashion trend,
samsung fashion laboratory,
Institute

other words, in the virtual world we can witness the perversion of apparels; people wear the other gender's apparel. Such a virtual body may pervert masculinity into femininity and vice versa. Of course, the exchanges in the virtual world may occur with such a trans-genderism. Cyborg denies or confuse the gender identity only to produce grotesque forms.

<Fig. 13> shows a Givenchy's electronic apparel. The on/off of the bulb mixes lights with the apparel to implode body/machine, spirit/material and man/woman, and thereby, champions a post-subjectivity.

The trans-genderism shown in the cyborg fashion perverts not only the gender but also societies, cultures and races, all of which exist on the same horizon; nothing is superior to anything.

V. Conclusion

Prevalence of the cyber culture in 21st century is not inevitable. Such terminologies as cyber space, cybernetics, cyber culture, cyber punk and cyborg will be established deep in our thoughts and life.

In this digital age, the development of technology transforms our images into electronic and mechanic images befitting the cyber society or culture, and thereby, symbolizes the abject body where natural and mechanic bodies are imploded.

Cyborg, namely post-human is a sexless and utopian ideal. It is a compound of organism and machine, and in short, mechanized or digitalized man.

Such an image of cyborg may be characterized by the grotesque signifying extended body with machines and emphasizing the materiality of the body.

The cyborg fashion beatifies the abjection as deformed mode and therefore, allows for grotesque bodies, while expanding the body artificially to establish a new concept of corporeality.

In short, the new concept involves the implosion of every border and the extension of body via virtual reality.

Such a cyborg fashion has been created as a new fashion by machines and artificial tools in this cyber age.

As discussed above, this study has so far analyzed the implications of the extended body shown in the cyber fashion, and to this end, reviewed, based on Kristeva's abjection theory, the main tendency or 'grotesque' of the digital aesthetics where every border between machine and organism, man and woman, culture and nature, copy and original, science fiction and social reality is imploded. This study can be concluded as follows;

First, the cyborg consisting of human's organistic body, artificial silicon body and machines is a result from a subjective merge of subject and object or man and machine. Thus, it distorts the body by using the high-end technology and re-presents an abject or grotesque body. In other words, such a category of grotesque involves dangerous and abject body regardless of genders.

Second, the artificial and electronic remodelling may be an extreme method of introducing the technology into body and thereby, extending the body. As silicon material, electronic and mechanic technologies and nano technology are used for this purpose, the concept of 'grotesque' features materiality and corporeality.

Third, the alternative for clothes allows for extended machine-body as artificial ensemble. It is a mechanic and artificial hybrid, and therefore, is characterized by maximized reproduction and disintegration of technology as well as post-corporal electronic identity.

Fourth, the artificial beauty and mechanic one of the hi-tech material symbolize the absence of humanity and indeterminate aesthetics, and the bisexual grotesque body consisting of body and machine reveals uncanny and anti-play.

All in all, the cyborg fashion is based on the artificial or mechanic beauty created by introducing a cyberdelic image into fashion and therefore, champions the recovery of humanism in this digital age through the extreme anti-dichotomic characterized by vanishment of body, post-materiality and post-corporeality.

References

- 1) The concept 'Hyper' begins to emerge across social, cultural and art areas as the 'Postmodern' prevailing in the century-end is being followed by a new era. It means 'departure from the normal track' or 'exaggeration'; it also connotes 'expansion of an area from one dimension to another one.
- 2) <http://www.cein.or.kr/~x3isnams/hee.htm>
- 3) The virtual space implies such concepts enabled by the digital electronic technology as multi-media, interactive global communication and virtual reality in a narrow sense of the word, and connotes the cyborg culture, post-biological age and many other implications in a wider sense of the word.
- 4) S. T. Hong(1997) *Cyborg, Cyber Culture*, Seoul: Culture and Science Press p.149.
- 5) The word 'cybernetics' was first used by an American mathematician Nobert Warner (1894-1964) in order to imply 'an exchange of message as simultaneous process of communication and control'. The word derives from the Greek 'kubernetes' meaning 'key holder'. The Greek work would later be converted into the Latin 'gubernetes'. Since its verbal form 'gubernare' means 'control' or 'manipulate', 'cybernetics' may connote 'control' and 'manipulation' in view of linguistic origin.
- 6) Anne Balsamo, *Technologies of The Gendered Body*, Duke University Press, 1999, p.11.
- 7) S. T. Hong(2000) "*Culture and Politics in the Cyber Society*", Seoul: Culture and Politics press, p.64.
- 8) et Nathan S. Kline(1960. 9), "*Cyborg and Space*", *Astronautics*, pp.26-76.
- 9) J. Marsden(1996), *Virtual sexes and feminist futures-The philosophy of cyberfeminism*, RADICAL PHILOSOPHY ISSUE 78
- 10) H. S. Kim & S. H. Yang(1999), "*The Aesthetic Consciousness of Cyberpunk in Fashion-Focused on Simulacres concept*, *The Research Journal of the Costume Culture*, Vol.7, No.5.
- 11) <http://www.uos.ac.kr~tcha/>
- 12) H. S. Kim & S. H. Yang(1999), "*The Aesthetic Consciousness of Cyberpunk in Fashion-Focused on Simulacres concept*, *The Research Journal of the Costume Culture*, Vol.7, No.5.
- 13) <http://www.uos.ac.kr~tcha/>
- 14) Nano technology discerns the error between 0.1nm and 100nm. 'Nano' is a prefix meaning 1/1,000,000,000. It deals with the infinitesimal world down to 1/1000,000 mm; atoms or molecules. Currently, Nano technology is used in bio-science and bio engineering.
- 15) *Feministic Extension of Body*, *Korea Feminism Science*, Vol.15, Issue.2, p.176.

- 16) The Journal of Design Culture and Criticism, Vol.4, Angraphics, 2001, p.57.
- 17) <http://hani.co.kr/section-007009000/2000/007009000200012142107002.html>
- 18) Y. S. Kim, op. cit., p.38.
- 19) P. Thomson, The Grotesque, 'Grotesque' derives from the Italian word 'glotte' meaning cave or excavation. Its adjective form was 'grottesco', and its noun form was 'la grottesca'. Around 1640, the adjective form of its English version was established as 'grotesque'. 1986, p.17.
- 20) Aesthetic and Art Dictionary, Mijinsa Press, 1989.
- 21) Edt. Elizabeth Wright(1997) Feminism & Psychoanalysis - a Critical Dictionary, Seoul : hanshin press
- 22) H. H. Kim(1998), Feminism, Video, Art and Gifted Girls, p.291.
- 23) H. H. Kim(1997), A study on American Feminist Video Art with emphasis on Narcism and Grotesque. Masters thesis, Hong ik Univ.
- 24) H. S. Kim and S. H. Yang(1999), The Aesthetic Consciousness of Cyberpunk in Fashion-Focused on Simulacres Concept, The Research Journal of the Costume Culture, Vol.6, No.2.
- 25) S. B. Kim(2001), "Cyborg Body and Fashion : Beyond the Desire of Skin Extension", The Journal of Design Culture and Criticism, Vol.4.
- 26) Meme is transferred not by genetic method but by imitation. It is a kind of cultural element. Its examples are songs, thoughts, propagandas, clothing fashion and tectonic modes. In all, meme implies dissemination and accommodation among people through imitations.
- 27) Freud defines "uncanny" as something that has long been familiar to us but invokes a sense of scare or terror.
- 28) Apter, Terry E, The uncanny, Fantasy Literature: An Approach to reality, London; Macmillan, pp.32-47, 1982.
- 29) An artificial compounding method for the self-assemble resembling a life due to the development of nano technology,