



Original Article

Posthuman body: A post-dualistic entity in bio(technological)-art

İnsan sonrası beden: Biyo(teknolojik)-sanatta post-dualistik bir kendilik

Mustafa Kemal YURTTAŞ*

Department of Interior Architecture, Haliç University, Faculty of Architecture, İstanbul, Türkiye

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ABSTRACT

The body has always been the subject of discussions whether in ancient, modern or posthuman times. In these discussions, it has been instrumentalized, domesticized, and even cursed or glorified, mostly through the dualisms such as mind/body, soul/body and self/other. Posthuman thought criticizes this dualistic comprehension for the body and proposes a post-dualistic understanding. This post-dualism blurs the distinctions starting from the ones between the human and machine, human and animal for a posthuman body. This study approaches the posthuman body as a post-dualistic entity as well. Through a qualitative research method, the academic literature was reviewed concerning the prominent debates on these issues and discussed the findings with the practical works of art. Primarily, Donna Haraway's arguments on the body with the notion of *cyborg* and Katherine N. Hayles' concept of *posthuman* were examined for building a basis of the research. At the intersection of these concepts, Deleuze & Guattari's notion of *becoming* and *becoming-machine* notion were explored. *Becoming-machine* not only relates to *Body without Organs (BwO)*, but also emerges as a developed concept for *posthuman* in Rosi Braidotti's texts too. Braidotti interprets this Deleuzian concept in a critical posthuman perspective and proposes a new notion as *Organs without Bodies*. This concept connects to *BwO* with its criticism on organism and also benefits from Foucault's arguments for *biopower* and *biopolitics*. So, Braidotti discusses Foucault's arguments on modernity to develop a criticism on biotechnological capitalism. Therefore, this research aims to discuss these interrelated critical subjects through biotechnological manifestations in contemporary art. In this scope, the purpose of this study is to interpret critical issues on the body from an interdisciplinary point of view and contribute to the academic literature with an alternative discussion mentioning the post-dualistic possibilities of the posthuman body.

ÖZ

Beden gerek antik çağda, gerek modern, gerekse de insan sonrası zamanlarda her zaman tartışmaların konusu olmuştur. Bu tartışmalarda beden çoğunlukla zihin/beden, ruh/beden ve ben/öteki düalizmleri üzerinden araçsallaştırılmış evcilleştirilmiş hatta lanetlenmiş ya da yüceltilmiştir. İnsan sonrası düşünce, bedene yönelik bu düalist anlayışı eleştirir ve post-düalist bir anlayış önerir. Bu post-düalizm, insan sonrası bir beden için insan ile makine, insan ile

*Corresponding author.

*E-mail address: mustafayurttas@halic.edu.tr

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hayvan arasındaki gibi ayrımlardan başlayarak birçok ayrımı bulanıklaştırır. Bu çalışma da insan sonrası bedene post-dualistik bir kendilik olarak yaklaşmaktadır. Bu konularda öne çıkan tartışmalara ilişkin akademik literatür nitel bir araştırma yöntemiyle taranmış ve bulgular sanat uygulamaları aracılığıyla tartışılmıştır. Araştırmaya temel oluşturmak amacıyla öncelikle Donna Haraway'in *siborg* kavramıyla ilgili bedene dair argümanları ve Katherine N. Hayles'in insan sonrası kavramı incelenmiştir. Bu kavramların kesişiminde Deleuze ve Guattari'nin *oluş ve makine-oluş* kavramları irdelenmiştir. *Makine-oluş* sadece *Organısız Beden (BwO)* ile ilgili değil aynı zamanda Rosi Braidotti'nin metinlerinde de posthuman için geliştirilmiş bir kavram olarak karşımıza çıkmıştır. Braidotti, bu Deleuzeyen kavramı eleştirel bir posthuman perspektifle yorumlar ve *Bedensiz Organlar* olarak yeni bir kavram önerir. Bu kavram organizmaya yönelik eleştirisiyle *Organısız Beden* kavramına bağlanır ve aynı zamanda Foucault'nun *biyoiktidar* ve *biyopolitika* argümanlarından da yararlanır. Böylece Braidotti, biyoteknolojik kapitalizme yönelik bir eleştiri geliştirmek için Foucault'nun moderniteye ilişkin argümanlarını tartışır. Dolayısıyla bu araştırma birbiriyle ilişkili bu kritik konuları çağdaş sanattaki biyoteknolojik tezahürleri üzerinden tartışmayı amaçlamaktadır. Bu kapsamda bu çalışmanın amacı, bedene dair kritik konuları disiplinlerarası bir bakış açısıyla yorumlamak ve insan sonrası bedenin post-dualistik olanaklarını vurgulayan alternatif bir tartışmayla akademik literatüre katkıda bulunmaktır.

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INTRODUCTION

Posthumanism, which is an interdisciplinary concept that includes many concepts today, is a critical perspective that argues that the Age of Humanism has come to an end and suggests that the assumptions of humanist thought that humans are reasonable and knowable are wrong. In this critical perspective, Humanism is considered as an understanding that accepts the cultural superiority of human beings as individuals, whose foundations were laid in the Renaissance Humanism and the Age of Enlightenment, starting in the 14th century and continuing to exist until today. This process was based on the idea that human is accepted as the measure of everything and continued with steps taken towards self-realization and becoming an independent individual by getting rid of the pressure of bigotry. It has accelerated with the transformation of human into a controlling founding subject that assumes to have power over all others within the natural-cultural ecosystem of which he/she is a part, with the goals of progress and enlightenment. Thus, the idea that the death of the liberal humanist subject should be declared and all institutionalization associated with it should be displaced has shaped critical posthuman thought.

Ihab Hassan, who first used the term posthumanism and introduced it to the literature, stated that this process of change could lead to a radical transformation of the human species and herald the beginning of a new era:

“We need to understand that five hundred years of humanism may be coming to an end, as humanism transforms itself into something that we must helplessly call posthumanism” (Hassan, 1977, p. 844).

Postmodern critical thinker N. Katherine Hayles, who investigates the process of human transformation into post-human, argues that posthumanism is the end of a certain understanding of human beings built by humanism, rather than the end of humanism as a historical period. For her, a new understanding of the body is coming with posthuman:

“Identified with the rational mind, the liberal subject possessed a body but was not usually represented as being a body. Only because the body is not identified with the self is it possible to claim for the liberal subject its notorious universality, a claim that depends on erasing markers of bodily difference, including sex, race, and ethnicity” (Hayles, 1999, p. 4).

A specific understanding of the human that Hayles points out is the humanist thought that has been going on for the last 500 years, which sees the human as superior to other species and comprehends the body with the dualisms of mind/body, woman/man, gender/sexuality, subject/object. According to Hayles, this understanding shows that the modern subject can continue its power in the posthuman by transferring the posthuman to a liberal humanist view of self. The fact that all institutions, concepts and traditions connected to the modern subject continue their existence in the posthuman body by updating themselves will continue the dualist body understanding of humanism. In this context, while posthumanism criticizes humanism, it also criticizes the dualist understanding of the body that continues after humanism and proposes a post-dualistic understanding of the body.

Criticisms brought by contemporary philosophers in the 20th century to the dualist understanding of the body, which has existed since the beginning of humanism, have

led to a post-dualistic understanding of the body in post-humanism. This understanding is not dualistic as it doesn't comprehend the body with dualisms such as mind/body, soul/body, woman/man, human/animal, human/machine. Some of the leading thinkers of critical posthumanism like Donna Haraway, N. Katherine Hayles, Judith Halberstam, and Rosi Braidotti explained their post-dualistic understanding of the body by associating it with the discourses of thinkers who shaped the 20th century contemporary philosophy such as Foucault, Deleuze & Guattari, and Baudrillard. Among these discourses, especially Foucault's concept of *biopower*, Deleuze & Guattari's social and desiring machines and the concept of *Body without Organs (BwO)*, Baudrillard's concept of *simulacra* and *simulation* have been influential in the post-dualistic understanding of the body.

Although the origins of the post-dualistic understanding of the body can be traced to First Wave Postmodernism, the real posthumanist turn took place in the literary criticism field of the 90s with feminist theorists such as Donna Haraway and Katherine Hayles. This field, defined as critical posthumanism, simultaneously embraced the field of cultural studies and became a comprehensive initiative that questioned the limits of anthropocentric humanism in the late 90s. By criticizing anthropocentric humanism with the posthuman body, a non-human life has been investigated and issues such as ecology, animal rights and robo-ethics have come to the fore. The post-dualistic body, which aims to destroy the human/non-human dualism of the West with these approaches, also wanted to displace all other dualisms because object/subject, self/other, organic/inorganic dualisms all ensure the continuity of the power of the humanist subject.

POST-DUALISTIC UNDERSTANDING OF BODY IN HARAWAY AND HAYLES

One of the main concepts expressing critical posthumanism's post-dualistic understanding of the body is *cyborg*. The concept of cyborg, introduced by Donna Haraway in seminal work *A Cyborg Manifesto*, eliminates the distinctions between human and animal, human-animal (organism) and machine, physical and non-physical. In the first of the three distinctions between these dualisms, the boundaries between humans and animals were completely violated and the cyborg is positioned in mythology where the boundaries between animals and humans are exceeded. The second distinction was between machines before and after cybernetics. The previous machines are machines that cannot act on their own, do not design themselves, are not autonomous, therefore they can only imitate humans, cannot realize themselves, and are only a caricature of the male human's dream of reproduction. Post-cybernetic machines of the late 20th century blurred the differences between natural and artificial, organic and mechanical, and became autonomous beings. In the third distinction, the differences

between the physical and the non-physical have become blurred and the latest generation of microelectronic machines have become miniaturized and invisible everywhere.

For Haraway, cyborg is the human theory and form of today and beyond. Although Haraway includes cyborg as a fiction of science in her discourse, she approaches cyborg as a social phenomenon: "A cyborg is a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction" (2016, p. 5). According to Haraway, we are all cyborgs. The cyborg figure symbolizes the disintegration of boundaries between concepts in the late 20th century, inspiring topics such as corporeality, identity and desire. The postgender world that Haraway envisions, where racial and sexual identities intersect, is also a cyborg world; where simulation has replaced representation, science fiction has replaced bourgeois literature, postmodernism has replaced realism, the biotic component has replaced the organism, and surfaces and boundaries have replaced depth and integrity. Cyborgs are organic data carriers who communicate both with their more or less intelligent environment and with humans with prosthetics. Thanks to its cybernetic and organic structure, cyborg fundamentally shakes the dominant human phenomenon and enables us to rethink gender, race, embodiment and differences. Since the existence of the cyborg is an organism that is human's own production and at the same time makes its own priority questionable, the power of the humanist subject is shaken. Therefore, it becomes possible for the posthuman body to become post-dualistic.

Another discourse that has an important place in the post-dualist understanding of the body is Katherine Hayles's concept of *posthuman*. In the context of Hayles's research on cybernetics, information theory, computer simulation and cognitive science, posthuman is a perspective characterized by different views of four basic features:

"First, the posthuman view privileges informational pattern over material instantiation, so that embodiment in a biological substrate is seen as an accident of history rather than an inevitability of life. Second, the posthuman view considers consciousness, regarded as the seat of human identity in the Western tradition. Third, the posthuman view thinks of the body as the original prosthesis we all learn to manipulate, so that extending or replacing the body with other prostheses becomes a continuation of a process that began before we were born. Fourth, the posthuman view configures human being so that it can be seamlessly articulated with intelligent machines" (Hayles, 1999, p. 2).

With these four features, Hayles's posthuman concept, just like Haraway's cyborg concept, argues that the dualisms of the humanist understanding in comprehending the body are no longer valid. According to the posthuman body understanding, there are no significant differences and ab-

solute distinctions between bodily existence and computer simulation, cybernetic organism and biological organism, robot teleology and human goals. These four features reveal how the posthuman interprets the body, inherited from previous generations, with the standards of the age posthuman lives in. In a society where a biological organism and a cybernetic organism are thought to be indistinguishable, concepts such as religion, language, race, nationality, gender and property have lost their validity as ethnic and moral values. According to Hayles, in such a social structure, the posthuman body emerges as “an amalgam, a collection of heterogeneous components, a material-informational entity whose boundaries undergo continuous construction and reconstruction” (1999, p. 5).

Hayles, with her multi-layered posthuman concept, suggests that the post-dualistic body would be much more than a human whose capacity was increased with technological prostheses. Hayles interprets the bodily transformation of the posthuman in the literary texts of authors such as Cole Perriman, Bernard Wolfe, Philip K. Dick, William Gibson, Neal Stephenson and in the context created by the development of cybernetic studies. In this context, she divides the period from 1945 to 2000 into three time periods and discusses the transformation of the human concerning the body. These three time periods are respectively; “the (lost) body of information, the cyborg body, and the posthuman body” (Hayles, 1999: 21). Through these periods, Hayles seeks answers to fundamental questions on “how information lost its body, that is, how it came to be conceptualized as an entity separate from the material forms in which it is thought to be embedded... how the cyborg was created as a technological artifact and cultural icon in the years following World War II... how a historically specific construction called the human is giving way to a different construction called the posthuman” (1999, p. 2).

Hayles's concept of the posthuman body is related to cybernetics and literature, as well as the concepts of *Body without Organs* (BwO) and *desiring machines* in the philosophy of Deleuze & Guattari. Like Hayles's concept of the posthuman body consisting of autonomous heterogeneous components, *Body without Organs* is not a body without organs, but a body without organization. Just as the posthuman body breaks away from the humanist tradition of the West, *Body without Organs* is a body that breaks free from the socially articulated, disciplined and subjectified state. It is capable of being reconstructed in new ways by becoming unattached, fragmented and thus deterritorialized: “It is on this body that assemblages make and unmake themselves, it is this body which bears the points of deterritorialization of the assemblages or lines of escape. It varies... If I call it body without organs, it is because it is opposed to all the strata of organization, that of the organism, but just as much the organizations of power” (Deleuze & Smith, 2016, p. 227). While the body in Deleuze & Guattari's philosophy be-

comes deterritorialized and independent of the regulations of power, the posthuman body in Hayles' discourse can be conceptualized as an entity that separates it from the material forms with which it has been integrated throughout history. While the reconfigurable parts of the body are defined by Deleuze & Guattari as desiring machines or organ machines, eating machines, talking machines, milk-giving machines, breathing machines, in Hayles' posthuman body they are seen as autonomous agents such as sleeping agents and food agents.

FROM BODY WITHOUT ORGANS TO ORGANS WITHOUT BODIES

Body without Organs (BwO) is a crucial concept in the philosophy of Deleuze & Guattari as it connects their thoughts on machine and organism, as well as becoming. BwO is the non-hierarchical and unlayered body as a plane of consistency and an intense state of becoming before the organism and the organization of the organs. It is a process towards an ongoing becoming although it can't completely escape from the organism. For this reason, what BwO argues is not the organs because it is “an assemblage of organs freed from the supposedly ‘natural’ or ‘instinctual’ organization that makes it an organism” (Holland, 2003, p. 94). BwO's argument on the organization of the organism doesn't mean that it is a body without integrity. It is “produced as a whole alongside the parts—a whole that does not unify or totalise them, but that is added to them like a new, really distinct part” (Colebrook, 2002, p. 64). Therefore, *Body without Organs* (BwO) emerges as a multiplicity of becoming non-organism that is liberating from the dualities of organic/inorganic and human/machine for a post-dualistic body through the lines of escape of Deleuze & Guattari.

In the becoming of *Body without Organs*, the machine is not a metaphor for Deleuze & Guattari as they understand the body as a machinic (but not mechanical) production and also life itself as machine not as an organism: “A machine operates by the connection of parts. Unlike an organism or a mechanism it has no final or bounded form; it is pure production in and for itself without governing intention” (Colebrook, 2002, p. 122). Daniel Smith also describes BwO as a *becoming-machine* as an encounter “when one part of the body enters into combination with some other machine in a way which allows it to escape from the organism's regularizing, normalizing processes” (2017, p. 109). *Becoming-machine* is one of the important concepts in critical posthuman thinking. In her seminal work *The Posthuman*, Braidotti describes *Body without Organs* as “a-functional and un-organic frames of becoming”; and becoming-machine as “relational powers of a subject that is no longer cast in a dualistic frame, but bears a privileged bond with multiple others and merges with one's technologically mediated planetary environment” (2013, p. 92).

Braidotti's emphasis on *BwO* is also related to her previous arguments in her book *Nomadic Subjects*. She proposes an alternative concept of *Organs without Bodies* in relation to Deleuze & Guattari and also Foucault. Braidotti describes *Organs without Bodies* primarily in parallel to Foucault's biopower and biopolitics: "*Organs without bodies* is the condition of advanced modernity... and the forms of knowledge of the human and social sciences, modes of normativity and normalization that invest simultaneously the political and the scientific field" (1994, p. 177). In this context, Braidotti bases her argument on Foucault's notion of body. This body includes both an empirical and a transcendental comprehension. It is empirical as the sum of organic pieces, a whole organism that can not be detached. It is connected to the studies relating to functional and behavioral issues such as clinical anatomy. This empirical point of view reduces the body into an organism and an organization of organs living together. But the transcendental point of view explores the body "as libidinal surface, field of forces, screen of imaginary projections; site of constitution of identity" in the fields like metaphysics and psychoanalysis (Braidotti, 1994, p. 178). Braidotti defines these points of view on the body of modernity as a double structure and criticizes this double by proposing an alternative *Organs without Bodies*. Therefore, she draws attention to the evaluation of biopolitics into biotechnology in parallel to advanced capitalism; "organs without bodies marks a planetary transaction of living matter carefully invested in keeping the human species alive and healthy and ethnically safe... and transplant of and experimentation with organs in a cynical, post industrialist simulacrum of the gift" (Braidotti, 1994, p. 183). She connects this situation to the instrumental logic of biopower and notes that *Organs without Bodies* is also an argument on the interchangeability of the organs in this sense of biotechnology. According to her, these bodies of biotechnology instigate discontinuity, overvisualization and speedy consumption of the body. Thus, *Organs without Bodies* is a criticism considering the body in the biotechnological scientific culture of advanced capitalism, in order to reinvent the practices of a post-dualistic body.

POST-DUALISTIC BODIES IN BIO(TECHNOLOGICAL)-ART

The post-dualistic understanding of the body is seen in the practices carried out in the field of biotechnology in relation to the critical posthuman theories of Haraway, Hayles, Braidotti, Deleuze & Guattari. Similarly, in his book titled *Humain, Posthumain*, Dominique Lecourt notes that 21st century can be denominated as "the age of biotechnology" as he attributed the beginning of biotechnological developments to the discovery of the double helix structure of DNA in 1953 by Francis Crick, James Watson and Maurice Wilkins (2003, p. 5). In addition to the genetic engineering techniques introduced by purifying and combining DNA fragments in the laboratory in 1973, the power created by



Figure 1. Agatha Haines, 2013, *Circumventive Organs*. A still from a surgical film, Artist's web site, Access: 19.12.2023. <https://www.agihaines.com/circumventive-organs>

the exponential increase in computing, modeling and simulation opportunities in the computer environment has also contributed greatly to these advances. More recently, biotechnology exceeds fixed and rigid models of engineering and becomes a "matrix of unprecedented life-forms that have as little to do with the nature of biology once depicted as they do with the biology" (Franklin, 2001, p. 320). These biotechnological developments also affect Bio-Art. At the beginning, Bio-Art is a form of art produced primarily with materials such as tissue, blood or genes. It is mostly mentioned with the artworks of Eduardo Kac's such as *Time Capsule* and *GFP Bunny* in the 90's. In the first period of 2000's, it became "a contemporary art form that adapts scientific methods and biotechnology to explore living systems as artistic subjects" (Yetisen, 2015, p. 724). As an interdisciplinary art form, it deals with the speculations on the future, both as fiction and as an urgent criticism on ecological issues as well. Through such a widespread perspective, Bio-Art appropriates not only technics from science like "transgenesis, cell and tissue cultures, hybridization and selection of animals and plants, homo-transplantation, neuro-physiology, physiological self experimentation as well as the synthesis of artificially produced DNA sequences" but also artistic mediums from new media arts, live art, performance art (Hauser, 2006, p. 131). Thanks to this perspective, Bio-Art and the body in Bio-Art become more related to Bio(technological)-Art and the post-dualistic body within it.

Agatha Haines is an artist and designer whose works are speculative practices of Bio-Art in between biotechnological engineering and medicine. Her *Transfigurations* project is a series of hyperreal sculptures representing five newborn babies, each of whom has undergone surgical body modification. Each modification is designed to address potential future problems for the baby, from medical or environmental issues to social mobility issues, asking questions such as *What circumstances justify modifying a baby's body?* Haines' another project titled *Circumven-*

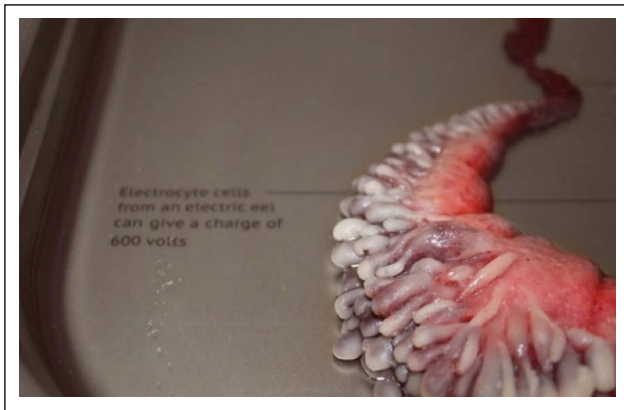


Figure 2. Agatha Haines, 2013, *Circumventive Organs*. Closeup photograph in tray, Artist's web site, Access: 19.12.2023. <https://www.agihaines.com/circumventive-organs>

tive Organs (Fig. 1, 2) approaches the body from the same perspective, but this time with real organs not representations. The project is an exploration of the future of medicine through the use of 3D printed hybrid organs. These organs are new and live organs with specific functions for the patients of heart attack, stroke and cystic fibrosis. They are produced by replicating and printing cells for complex structures, so that they can prevent patients from these diseases and death. These new organs provide an alternative to the possibility of an organ evolving naturally over many years for which the patient's life span is not sufficient. Not only from a specific organ of a human body, these replicated cells can be from different species.

Haines (2013) describes these bioprinting processes as a series of three organs: "The first is a defibrillating organ using parts from an electric eel that can discharge to release an electric current to the heart when it recognizes it going into fibrillation (heart attack). The second is an organ that uses rattlesnake muscles to release mucus from the respiratory system of a person who suffers from cystic fibrosis and dispel it through the stomach. The third contains cells from the saliva gland of a leech and releases an anticoagulant when it feels the pressure of a potential blood clot in the brain as a way of avoiding a stroke."

Critical Art Ensemble is an artist initiative whose practical and theoretical works criticize the issues relating to neo-liberal economy and technological-capitalism affecting the body and the public. In this sense, *cyborg* is one of the crucial subjects in their works. In their performances, they interpret the cyborg as an organic platform integrated into a complex technological superstructure consisting of different generations. For them, while the organic platform and technological superstructure in the 1st generation cyborgs can work completely independently, the 2nd generation cyborgs consist of removable, integrated technological systems and organic infrastructures.



Figure 3. Critical Art Ensemble, 1998, *Flesh Machine*. Photograph from the performance, Artists' web site, Access: 19.12.2023. <http://critical-art.net/flesh-machine-1997-98/>



Figure 4. Critical Art Ensemble, 1998, *Flesh Machine*. Photograph from the performance, Artists' web site, Access: 19.12.2023. <http://critical-art.net/flesh-machine-1997-98/>

In their performance *Flesh Machine* (Fig. 3, 4), they bring up the distinctions between biological classes for discussion. By testing the suitability of participants' genes through a donor program, the artist collective aims to uncover hidden remnants of eugenics that still exist in the fertility market. They state that although eugenics was thought to have been used and disappeared at the beginning of the 20th century, it still exists to rationalize the body in accordance with the socio-cultural structure of capitalism. For them, like a city, factory or any other cultural structure; the body is organized, manipulated and reproduced according to the dominant values of the culture. In the performance, the donor participants' DNA and cell samples are amplified and then flash frozen at an on-site lab by the artist. These materials are used to complete a profile user of a participant and then their body value becomes accessible information for a genetic market economy. By bringing the scientific processes of reproductive technology to the public sphere,

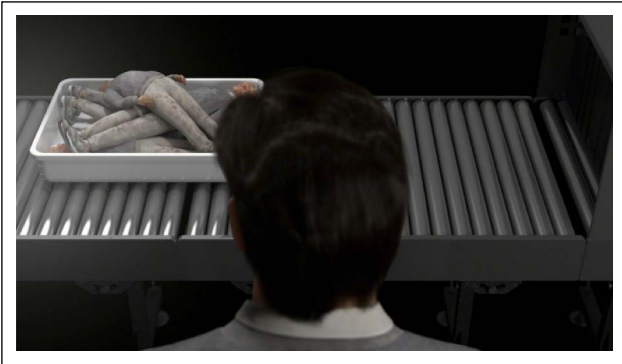


Figure 5. Ed Atkins, 2016, *Safe Conduct*. Video Still, Artsy, Access: 19.12.2023. <https://www.artsy.net/artwork/ed-atkins-safe-conduct-production-still-3>

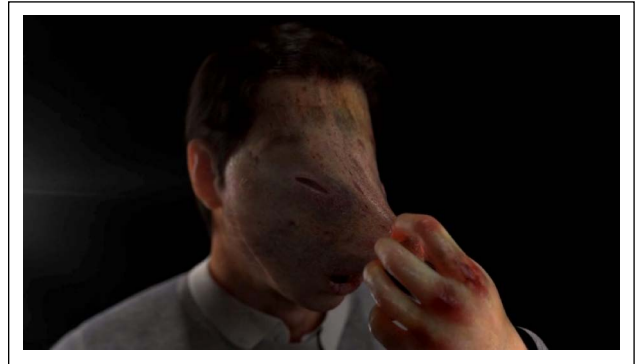


Figure 6. Ed Atkins, 2016, *Safe Conduct*. Video Still, NSW Art Gallery, Access: 19.12.2023. <https://www.artgallery.nsw.gov.au/collection/works/1.2018/>

the performance underlines Haraway's loss of meaning of interspecies classifications and the hierarchy of each species within itself in the cyborg body, with its focus on eugenics. On the other hand, *Flesh Machine* (Fig. 3, 4) opens up the processes of the intersections of economy and biotechnology for an awareness on the consumption of the body by bringing "the scientific processes of reproductive technology into the public domain. (Critical Art Ensemble, 1998).

Ed Atkins is a visual artist mostly working in the medium of digital video installations. Atkins's works depict the body's relationships with contemporary technological issues. His installations include bodies without genitals, disembodied heads hanging in the darkness, heads that shrink and deflate like balloons. *Safe Conduct* (Fig. 5, 6) is a three-channel video installation with classical music which is a cynical animation on the security issues in the airports. In the video, there is a man trying to pass the security checkpoint in the airport by not only putting his usual stuff like a laptop or belt, but detaching and putting his body parts on the trays for X-Ray. Instantly, he decomposes his body into separate organs as his brain, arm, ear is placed on the trays. In this own unique reality of the video, there are also shifts in the scale of the body. One organ is an ear taken from a life-size head, while the same man also appears miniaturized and replicated three times to fit on the tray.

In another scene, he lays on the rails and passes as a whole through the X-Ray; or after seeing a lung or a gut, some fluids are poured into the tray, not clear that it is his blood or anything else. As well as these flowing images that appear to have been taken from an organ bank, he also pulls the skin off his own face, over and over again, seemingly endlessly, to prove his safety and reality. Atkins' organ bank-like environment operates as a visualization of a body consisting of non-hierarchical organization of organs. They are detachable and this doesn't affect the wholeness of the body as it still exists at the following scene. Thanks to their detachable organization, they seem to attach again and again in multiple combinations which can make it a possible *Body without Organs* as an assemblage. So, the more

these organs act independent of an organism, the more they become *Organs without Bodies* at the same time. They can interchange in-between themselves and even be an extension of an organ that hasn't been before.

DISCUSSION AND CONCLUSION

Regardless of being criticized or celebrated, the technological continues to exist and develop in posthuman debates, particularly on the theoretical and practical studies concerning the body. Under the umbrella of different but tangential fields, posthuman studies explore the potentials of the body through the effects of the technology as there are two areas that stand out as Transhumanism and Critical Posthumanism. The first is a research on the body in order to transcend the boundaries of its species, in parallel with the developments of technology; and the latter is a philosophical discussion on the body to reinvent less human-centered models of life, while not excluding technology. Ferrando suggests the concept of *posthumanities* for these areas because it exceeds the conventional understandings on human and "turns into an open framework, which is invoked to inclusively address future developments of humankind". She draws attention that both fields "focuses on the increasing use of biotechnologies and genetic engineering, which can be revisited as forms of artificial selection" (2019, p. 125). Ferrando also suggests defining the second as post-dualism for its criticism to break the boundaries of dualistic thinking. Thus, the post-dualistic body of *posthumanities* emerges not only as a theoretical subject of philosophy but also as a practical subject of applied science. Haraway and Hayles examine this body through the concepts of cyborg and posthuman. Both thinkers propose to exceed the distinction between the human and the technology. Haraway manifests a post-gender and post-anthropocentric world for the bodies living together independent of the dualities starting from the human/machine and organic/inorganic. Similarly, Hayles claims that we have already become posthuman that "can be seamlessly articulated with

intelligent machines” (1999, p. 2). In this context, Deleuze & Guattari’s notion of *becoming*, particularly *becoming-machine*, has an important role in order to invent the post-dualistic body. This notion is mainly related to their concept of *Body without Organs (BwO)* because it reveals the lines of escape from the hierarchical organization of the organism. It suggests a body as “a patchwork of fragments, a multiplicity that is residual within discourse and characteristic of everything that discourse articulates: in short, an assemblage, or a becoming”. (Colebrook, 2002, p. 65). *Body without Organs* also forms the basis of posthuman discourse of Braidotti. Not only does she define her notion in reference to becoming, but also she proposes a new notion as *Organs without Bodies* which criticizes the practices over the body in advanced capitalism, mainly in relation to biotechnology.

According to these debates, the artworks cited in this study are related to them as practical works. Critical Art Ensemble’s *Flesh Machine* (Fig. 3, 4) articulates the argument of Haraway because their performance coincides with Haraway’s idea that the cyborg, that is, the technologicalization of the body, is a sociocultural product of late capitalist technology. Their work also discusses Foucault’s discourse that bodies are made more obedient, useful and functional by biopower which is also related to the critics of *Organs without Bodies* in Braidotti. Similarly, Agatha Haines’ *Circumventive Organs* (Fig.1, 2) is a discussion on interspecies relationships by the effects of biotechnology. Haines’ organs speculate on these issues not as a representational but as an actual entity. Like Critical Art Ensemble works with the real cells of donor participants, Haines collaborates with the professionals from medicine and biotechnology to replicate the living cells. As these replicated cells are collected from animals, they break the division between the animal and the human in an actual way. On the other hand, *Circumventive Organs* (Fig. 1, 2) also use the advantages of technology by 3D cell printing, so that it depicts a post-dualistic body blurring the boundaries between human, animal and the technological. Haines’ work can also be read as extension of Braidotti’s *Organs without Bodies*. As Braidotti argues, with planetary transplantations and experimentations, Haines’ work depicts how the developments of biotechnology can affect organic life to the death. Thus, what Braidotti mentions as an interchangeability of organs in biotechnology comes to the fore as a practical discussion in Haines’ 3D printed organs. Likewise, Ed Atkins’ *Safe Conduct* (Fig. 5, 6) relates to Braidotti’s argument on interchangeability of organs as well. This time, not 3D printed replicas of real organs, virtual replicas of usual organs become the subjects of the same discussion. In his video, Atkins proposes a parallel dimension which is very alike to this world. It visualizes a world of an alternative, non-human present imagined as if. The living persona in the video questions its post-dualistic body through the situation and environment they are in. In a dystopian environment which is a combination of an airport security checkpoint and an organ bank, the man is seen constantly repeating the

same movement. He pulls the skin off his own face, over and over again, to reveal the next layer of fiction. This movement, which seems to continue in an endless cycle, reminds the continuity of the posthuman body’s break from the previous humanist body discourse and the post-dualistic perspective it has developed against dualisms such as real/fictional, natural/artificial, organic/inorganic.

In conclusion, the posthuman body is a criticism of established dualisms in order to unveil a possibility of a post-dualistic entity. It is an entity which, at first, is an attempt to blur self/other and then machine/organism. It is a becoming in-between *Body without Organs* and *Organs without Bodies* as it both criticizes and celebrates its process through biotechnology. Therefore bio-art became bio(technological)-art which is “no longer just a topic, but a tool, generating green fluorescent animals, wings for pigs, and sculptures molded in bioreactors or under the microscope, and using DNA itself as an artistic medium” (Hauser, 2003, p. 3). So, the posthuman body unveils as a post-dualistic entity as one of the primary subjects and mediums of this type of Bio(technological)-Art.

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