

## Mechanical Choreographies of an “Evolutionary Alchemist”: Stelarc’s Techno Body and Multimedia Performance

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In this paper, attention is paid to the mixture of revulsion and appeal that Stelarc’s body performances evoke. Their reliance on the staging of numerous events of penetration, piercing and suspension, facilitated by electronic and virtual technologies, underlines the flexibility and endurance of the human body form. However, the limitations that such practices impose on bodies and technologies alike highlight the ambivalence that such performative acts generate. In the present reading of Stelarc’s multimedia projects, an evaluation and criticism of the technological practices he adopts for the construction of a technologically and biologically augmented human form is provided. The body-engineering and corporeal-mutation practices that Stelarc employs foreground the tendency of contemporary art to move beyond the confines of the staged theatrical performance to more challenging but self-inflicting mediums of representation. Although the success of his performances relies on the benevolence and cooperative nature of his body’s shape and structure, it still remains to be seen whether the interface between the human and the technological can be sustained.

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### Introduction

The dilemma the human subject is confronted with in an age overrun by interactive multimedia programmes and computers has led to a confusion regarding its integrity and genetic well-being. Technology has come closer to the skin than ever before and its response to the human touch has radically redefined the nature of the human self. The use of prosthetic limbs, cosmetic surgery and genetic alteration has made the body merge with cybernetic technology, leading to “a techno-humanoid fusion” (Bukatman 304). The relationship that the human body establishes with electronic technology via the datascape serves as a new ground for bodily awareness where the two seemingly irreconcilable notions of *human* and *technology* intermingle.<sup>1</sup> In this

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1. For more information about the ambivalent relationship between technology and the human body since the end of the nineteenth century, see Armstrong.

new terrain of pure information, machines are gifted with organic qualities, while bodies are restructured through the intervention of new corporeal technological practices, such as prosthesis and virtual reality.<sup>2</sup>

For performance artists,<sup>3</sup> the human body always constitutes a site of examination, and with the intervention of new technologies, the body has become the site of on-going alterations and transformations through biotechnological equipment. In Stelarc's cyborg performance art, the body and particularly its flesh feature as markers of transgression and subversion because of their subjection to numerous events of penetration, piercing and suspension in an effort to reflect on the stamina of the body and its adaptability with the emerging electronic technologies. Stelarc's (or Stelios Arcadiou) performance work has also involved the experimentation with prosthetic technologies some of which include the creation of a third hand and an extra ear, synthetic skin, stomach sculpture and a virtual body. Stelarc has described his work, in an interview with Nicholas Zurbrugg, as "a general strategy of extending performance parameters by plugging the body into cyber-systems, technological systems, networks, machines that in some way enable the body to function more precisely or more powerfully" ("Electronic Voodoo" 46), disregarding socio-cultural and artistic conventions. However, the questions that this paper will attempt to address are: Do Stelarc's theatrical practices actually focus on the functionality of the human body or on its abuse? Should his art be regarded as celebratory or insulting of the human subject?

By placing this paper within the context of corporeal mutation practices and body engineering, attention will be paid to the mixture of repugnance and appeal that Stelarc's body performances evoke due to their reliance on the staging of bodily transgression and deviance that are facilitated by electronic and virtual technologies. Emphasis will also be placed on the limitations that such a practice imposes on bodies and technologies alike as well as on the ambivalence that such a performative act generates. The present reading of Stelarc's multimedia projects provides an evaluation and criticism of the technological practices he adopts in his attempt to construct a technologically and biologically augmented human form.

### The Performing Cyborg

What Stelarc seems to have been interested in from the very beginning of his multimedia performances in the 1970s is the mechanical and instrumental depictions of the human body, featuring in Stelarc's performative acts as

2. According to the *OED* (1933), the notion of *prosthesis* made its appearance in 1706; it defines the surgical process of artificially supplementing the deficiencies of the human body.

3. Other performance artists belonging to the category of techno-performance are: Orlan, Ron Athey, Franko B., Bill Viola, Henri Chopin, and Stahl Stensile.

something that can be constructed and assembled. Since his early suspension performances, Stelarc insists that the vulnerability of the human body is attributed to the dissolving of its physiological traits and gendered identity, consequently affecting the shaping of its cultural consciousness and selfhood. The dismantling of the human body leads to the disorganisation of human selfhood, which results in the production of tailored modes of human subjectivity ranging from machine-oriented models to genetically-moulded human simulations.

The appearance of virtual reality and the popularisation of electronic technologies in the 1980s could be interpreted as the symptom of a longing to surpass every-day experience by accessing diverse realities and technologically defined forms of existence. This led to the emergence of an electronic-oriented terrain of consciousness where the human body could exist in neutrality away from the social markers that designated its existence. This tendency has been popularised in a number of films—*Blade Runner* (1982), the *Alien* trilogy (1979, 1986, 1992), the *Terminator* series (1984, 1991, 2003), the *Robocop* series (1987, 1990), and the British film *Hardware* (1990)—in which the technologically enhanced body is not restricted by the behavioural codes imposed by the society. Stelarc, in an interview with Martin Thomas in Mike Featherstone's *Cyberspace/Cyberbodies/Cyberpunk*, talks about the human body as “a moving projectile [...] choreographed by machines” (383). For example, in his *Exoskeleton* (1998), Stelarc manages to extend his body, with the use of a pneumatic machine, beyond the confines imposed by the human body mass and gravity. Positioned at the centre of the structure, the artist manages to activate the machine, which is controlled by the artist's movements and other electronic software, making himself the centre of a spectacle in motion. In the article “Parasite Visions: Alternate, Intimate and Involuntary Experiences,” Stelarc writes: “The body actuates the walking machine by moving its arms. Different gestures make different motions [...]. The body's arms guide the choreography of the locomotor's movements” (Featherstone, *Body Modification* 118). Also, in *Ping Body* (1996), Stelarc manages to integrate the human body and the Internet by sending network signals to the body muscles. Permitting the body to be managed by the machine, Stelarc's digital art projects focus on the construction of a human-machine interface that changes our sense of the human body form and identity: “The usual relationship with the Internet is flipped—instead of the Internet being constructed by the input from people, the Internet constructs the activity of one body” (“Parasite Visions” 123). In this case, as Valter Puchner notes in his article “Virtual Body Living Body,” the performer is not simply re-enacting a role, but he is paying attention to the disciplined and co-ordinated movements that both his body and the machine generate (90).

According to the definition of the “cybernetic automaton,” provided by the cybernetic scientist Norbert Wiener, the conceptualisation of an electronic human, as David Tomas notes in “Feedback and Cybernetics: Reimagining the Body in the Age of Cybernetics,” marked “a new threshold of intelligence,

which extended beyond [...] automated, factory based machine systems" (Featherstone, *Cyberspace/Cyberbodies/Cyberpunk* 25). Wiener's cybernetic automaton constitutes an evolutionary stage in the history of the scientifically-rebuilt human body gradually advancing from "automata" and "android" to the electronically-modified "robot." Founded upon the ever-changing notions of the organic and the inorganic, the human body and the electronically designed non-human, the cybernetic automaton has turned into what we nowadays recognise as the technologically-evolved hybrid form of the cyborg.<sup>4</sup> As evidenced in the film productions already mentioned, the cyborg features as the new reconstructed but electronically-progressive body, the biologically-engineered human form, whose human flesh fuses with its artificial prosthetic parts. However, Stelarc's understanding of the cyborg surpasses the boundaries set by its strictly mechanical, automated existence in its conception as a willing collaborator looking for physically and intellectually amplified experiences made possible by the structural parameters of the Internet. More specifically, Stelarc's performing projects entwine the living and the artificial in an attempt to expose human skin as well as the tabooed territory of the inner body space by transforming it into a publicised and spectacular experience.

The fusion of the physical world with electronic means in defining human consciousness and bodily presence moves away from how *we* conceptualise the idea of the human body. It is associated instead with a desire to exceed the limitations imposed by human flesh through the emergence of alternative means of existence, which is what characterises Stelarc's art. The biological engineering and configuration of new human types, which Brian McHale describes in *Constructing Postmodernism* as "the physical diffusion and loss of differentiation" (257) between the sexes, enable the body to be read not as a boundary but as a "transparent symbol [...], a machine that no longer exists in dichotomous opposition to the 'natural'" (Bukatman 244). However, it cannot be denied that the sensory and sensational effects that electronic technology adopts do transform the body into an emblazoned surface on which, according to Arthur and Marilouise Kroker, "the grisly symptoms of culture" are displayed (qtd in Bukatman 245). Although Stelarc's body acts seem to be pointing towards other optional ways of envisioning the human form, they simultaneously reveal a fascination with the exploration of transgressive and "violent" for the human flesh forms of subjectivity.

With the emergence of the cyborg, the human body finds itself caught between two antithetical poles: fascination due to its technological perfectibility and revulsion from the strangeness of its form. The anxieties arising from the vulnerability of the body in the context of electronic technology cause it to enter

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4. The neologism "cyborg" was proposed by Manfred E. Clynes and Nathan S. Kline in 1960 to describe self-regulating man-machine systems. For more information see Clynes and Kline 26-7, 74-6.

a cultural vicious circle, where the pleasure of technological progress is subsumed by fears concerning its future evolution. At the start of his artistic career in the late 1960s and early 1970s, Stelarc was compelled by a similar ambivalence in relation to the role of the artist and the attitude that art should adopt towards the human body and the emerging electronic technologies of the day. The shocking and unconventional spectacle that Stelarc's multimedia performances produce, when technology spreads out the skin and penetrates the body, simultaneously reveals, as mentioned in Ross Farnell's "In Dialogue with 'Posthuman' Bodies: Interview with Stelarc," "other more deeper and more complex interfaces and interconnections with the technologies we've generated" (Featherstone, *Body Modification* 131). As a consequence, Stelarc views the contemporary performance artist as an "evolutionary alchemist" or a "genetic sculptor." In other words, he believes that the purpose of the multimedia artists is not simply the admiration or detestation of technology but the exploration of its enhancing and extending capabilities through the manipulation of the human body form and their experimentation with the designing of advanced and challenging technological systems. In the study *Obsolete body: Suspensions: Stelarc*, he claims:

The artist can become an evolutionary guide, extrapolating new trajectories; a genetic sculptor, restructuring and hypersensitising the human body; an architect of internal body space; a primal surgeon, implanting dreams, transplanting desires; an evolutionary alchemist, triggering mutations, transforming the human landscape. (76)

For these reasons, Stelarc's performances constitute a series of choreographies of controlled, constrained and involuntary motions of internal body rhythms and external gestures, all being electronically induced. This interplay between physiological control and electronic modulation of human functions is further enhanced by the images, information and video recordings made available on the World Wide Web.<sup>5</sup> According to Stelarc, in his article "Parasite Visions: Alternate, Intimate and Involuntary Experiences," "[t]he Internet becomes not merely a means of information transmission, but a mode of transduction – affecting physical action between bodies. Electronic space as a realm of action, rather than information" (Featherstone, *Body Modification* 126). Consequently, all the material made available on line is continuously updated due to the body's unanticipated actions and reactions provoked by the intervention of technology and the data made available through various sources and locations via the Net. As a result, the human body is "not simply a single entity with one agency but one that would be a host for a multiplicity of remote [...] agents," Stelarc notes (120). These views echo Puchner's comments when he writes that

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5. Stelarc's official website is <http://www.stelarc.va.com.au>. It contains a variety of his written declarations as well as visual and recorded material from his performances.



such choreographies, in the context of technologically-oriented performances, turn into “gestures” pointing towards an unspecified and incomplete aesthetic experience (94) due to the flow of information the human body reveals about itself. The tasks that it performs are initiated not only by its own physiology but also by the signals that it receives electronically. Whether all this bodily gesturing points towards the reinvention of the human body due to the embracing of electronic technologies or to its dissolution will be examined next.

***Human Flesh and Technological Gadgetry: A Welcoming Fusion or a Collision?***

The way Stelarc employs technology, not as a prosthetic replacement but as an aesthetic ornamentation, has provoked critics to judge his work as paranoid or narcissistic in its obsession with performative acts and appearances. For example, Ken Robins and Les Levidow, in Chris Hables Gray’s *The Cyborg Handbook*, characterise such performances as a combination of “an omnipresent phantasm of self-control with fear and aggression directed against the emotional and bodily limitations of mere mortals” (119). On the one hand, this kind of reaction appears to be justified if one tries to interpret Stelarc’s performances by following a conventional code of judgement; while, on the other hand, one should take into consideration the artist’s point of view and the exact technical knowledge required for the designing and planning of his every multimedia act.

What Stelarc is trying to demonstrate is that the subjection of the body to acts that infringe its physical limitations opens our vision to, possibly provocative but definitely, “other” ways of envisioning ourselves within the technologically dominated reality by appreciating the pressures as well as the anxiety the human subject is placed under. The new body shapes that technology constructs seem to increase rather than relieve the confusion that the audience experiences as to the future of the human body. This is justified by the newness and unconventionality permeating Stelarc’s performative acts, since they are used as a means for the generation of an array of hypothetical stands or states of being that traditional performance avoids. This is made clear in the twenty-seven body suspensions that Stelarc has performed between the 1970s and 1990s, during which his body, hung by stainless steel hooks, has been raised into the air where the artist would be suspended in silence from fifteen to forty-five minutes. The intention behind these performative activities has been to examine the feeling and resilience of the human body. In this manner, Stelarc has attempted to offer a new discourse on the body and its relationship to technology by re-imagining bodily existence within the context of an artificially constructed experience. Throughout his performances, Stelarc has experimented with a variety of suspension techniques or “aesthetic choices,” ranging from stone platforms and wooden spikes to rope harnesses. Jane Goodall, in her article “An Order of Pure Decision,” writes: “The artist begins not with an ‘as if’

but with a 'what if?', typically attached to a provocative hypothesis concerning the untried possibilities of the body" (Featherstone, *Body Modification* 168). In this manner, Stelarc, through the experimentation with different acts of physiological and bodily functioning, suggests an alternative relationship between the human body and art caused by the intervention of technology: the human subject no longer looks at art or performs according to art but becomes an art object itself.

Stelarc's attitude to technology has created great controversy amongst critics and especially his use of the word "obsolete" to describe the status of the human body when subjected to his technological manipulations. Paul Virilio, in an interview with Zurbrugg, explains:

He [Stelarc] thinks that technological forces will allow him to transfigure himself—to become something other than what he is [...] But for me, man is the last of God's miracles. [...] And Stelarc's research is quintessentially eugenicist in the sense that he's trying to improve his condition. His is a kind of body-building, a kind of body-art! And I'm fundamentally opposed to eugenics! I believe that man is finished. (179)

As Virilio indicates, there is a real problem with the way technology is employed within the artistic medium. Although it presents itself as a means of enhancing human form, what it really does is to destabilise it via the annihilation of its boundaries with the proposition of physiologically impossible body structures. Virilio goes on to question the intentions of such artists, as Stelarc, in his *Open Sky* by saying:

How can we live if there is no more here and if everything is now? [...] How can we rationally manage the split, not only between virtual and actual realities, but, more to the point, between the *apparent* horizon and the *transapparent* horizon of a screen that suddenly opens up a kind of temporal window for us to interact elsewhere, often a long way away? (37)

In other words, is it possible to claim that a technologically manipulated body results from its free intermingling with technology or that its creation verifies the body's servitude to it? Virilio views the technocultural practices of such artists, such as Stelarc's, as degenerative manifestations of an art which allows itself to be occupied by the new technologies instead of retaining a critical stance towards them.

Although Virilio's objections are of an ethical nature, Stelarc still insists on his primary artistic intentions which deal with alternative aesthetics and speculative ideas. For Stelarc, according to Zurbrugg, "new technologies are more significant as catalysts empowering the artist to work 'beyond spaces of certainty', [...] in projects exploring 'those thresholds, those zones of slippage, those areas of interface, with anxiety, with hope and desire, but without

romantic nostalgia” (Featherstone, *Body Modification* 49). As for the kind of art that he promotes, he believes it signals an evolutionary departure from standardised art forms and practices, since his research follows the hypothesis that “to be human is to be augmented, extended and enhanced by technology [...] attempting to explore the potential of unexpected kinds of performative interaction” (Zurburg 196).

According to Bernard Stiegler’s analysis, “the body and technology must be framed together as an interrelated, inter-sustaining chain of evolutionary systems which must be continually reinterpreted in order to effectively propel an understanding of both forward” (94). Stelarc is inviting his audience to consider more deeply the complex symbiosis of the human body with the technologies of today by appreciating the ambivalences and uncertainties that his art and performance generate.

To appreciate Stelarc’s theatrical and scientific practices, one should turn to Bertolt Brecht’s performative theory. In his essay “A Short Organum for the Theatre,” Brecht interpreted the relationship that exists between science and art as such: “But science and art meet on this ground, [...], the one setting out to maintain, the other to entertain us. In the age to come art will create entertainment from that new productivity which can so greatly improve our maintenance, and in itself, if only it is left unshackled, may prove to be the greatest pleasure of them all” (185). By juxtaposing these views with Stelarc’s performative methodology, one notices that science or, in the case of multimedia performance, technology, has not lost its ability to maintain the impression that performance art creates. With the aid of other technological devices, the artist is not only able to capture the intensity of the performative act, but also to freeze it in space and time by maintaining the audience’s response or impression that was initially created. However, this kind of procedure, in the case of artists like Stelarc, does not simply serve an aesthetic purpose but attempts to externalise the transformation his body is subjected to when undergoing, for example, various suspension practices. In this sense, the performative act stops being a mere act of pleasure or amusement but one of puzzlement, since it is not the aestheticisation of the human body that matters but the depiction of its painful metamorphoses as a real-time event before being electronically relayed.

This is exactly what makes Stelarc’s performances challenging as well as difficult to bear: the performer’s ability to deal with pain at the moment the performance is carried out and the achievement of the desired performative outcome. However, it remains surprising how the body adapts to the artificially formulated conditions by succeeding in sustaining the forces exercised on it. In this way, Stelarc is trying to make his audiences realise that it is possible for the human body to overcome certain limitations imposed on it by gravity, physical soreness, or social conventions, and evolve or transform into other viable and more enduring states of being. So when he terms the human body “obsolete,”



he does not refer to its extinction but to its corporal reformulation facilitated by the technologies of today.

When the body transforms, it continues to reinstate its position within the contemporary world but in a form much more compatible with the emerging technologies. This is better understood, for instance, by Stelarc's *Third Hand* project in the early 1980s. With the construction of an artificial hand, which attaches to the right arm, Stelarc has experimented with a variety of manoeuvres and movements amplified by the body's interior sounds, caused by its heart beats and the running of blood, which act as a sound recording to the performance (Baraibar 163). As for the artist's attempt to write the word "evolution" using his own and the robotic hands together, it is down to the co-ordination of the neural networks simultaneously controlling the third hand and Stelarc's own body muscles. In this emblematic gesture, the audience is confronted with a new mechanically-defined reality which does not defy the body's own corporeality. A similar experience is triggered by Stelarc's prosthetic *Extra Ear* project, which consists of the attachment of a cast third ear to his face. Equipped with a sound chip, this ear's purpose is to listen to the body and its sounds not only allowing it to communicate with itself but also making itself heard to anyone that would go near it. Stelarc writes: "Imagine an ear that cannot hear but rather can emit noises. [...] Or imagine the Extra Ear as an Internet antenna able to amplify Real Audio sounds to augment the local sounds heard by the actual ears" (Featherstone, *Body Modification* 119).

These projects mark a significant turn in Stelarc's performative career, since the body, according to his statements, does not appear to suffer any more. It is viewed instead as all enduring and adaptable to the various technological apparatuses that masquerade its existence by making it look playful and amusing. This procedure alters the way the performance artist envisions the relationship between technology and the human body, bringing it closer to the Brechtian understanding of it as a creative and liberating union. Brecht uses the words "productivity" and "unshackled" when he is talking about the emergence of a scientifically modified theatrical experience. Although science is defined as the set of methods used for the discovery of new truths, its description by Brecht as productive reveals its relevance to technology. The Greek etymology of the term *technology* or *technologia* (*techne* + *logos*) suggests its relationship with art as a system of expression interested in the production or the making of things out of the imagination or natural raw materials (Cavallaro 42). With Stelarc, the human body offers itself to the making of other images about itself with the application of scientifically-defined skills. This means that performativity for Stelarc is a much more complex but, at the same time, liberating process that moves beyond the conceptualisation of the theatrical activity as a realistic task, allowing for creativity and experimentation.

It is important to note that the various shapes that Stelarc's body adopts are not the outcome of genetic engineering and internal restructuring but the result

of external modification. Stelarc's purpose is not to impose a structure on the human body that will alter its physical appearance. His aim is to show that with the suspensions or prostheses he is trying to enhance the possibilities of the human body by offering the spectator the opportunity to re-visualise the human body otherwise in a series of different postures. As a result, Stelarc subverts the existing socio-cultural notions that want the human body to be a fixed entity with the introduction of a human form that can be remodelled and renewed in a manner that changes the way subjectivity is perceived and understood. All these projects make clear that Stelarc's art is not simply an aesthetic experience but an amalgamation of scientific experiments whose functionality lies in their engagement with the survival of the human body. The confrontation with the limitations and enhancements of our own bodies makes us aware of their weaknesses and strengths and it simultaneously offers a new vision and new ways to operate with them. Characteristically, Stelarc notes: "The self becomes situated beyond the skin. It is partly through this extrusion that the body becomes empty. But this emptiness is not through a lack but from the extrusion and extension of its capabilities" (Featherstone, *Body Modification* 120).

## Conclusion

Stelarc's modified body subverts and transgresses the boundaries of what is human and what is not, with its body forged through the pairing of biological and electronic elements. Its hybrid design subverts any conventional notion in relation to the wholeness and rigidity of the human body but not in terms of its emotional disposition. His overtechnologised human body is often portrayed as an irregular form, a notion that Stelarc attempts to subvert during his multimedia performances whose success relies on the benevolence and collaborative nature of his body's shape and structure. In an interview with Farnell he claims: "My feeling is that it's not enough to speak in metaphors or paradigm shifts, [...], we should confront and radically question what it means to have a body" (Featherstone, *Body Modification* 131).

The construction of a technologically-enforced or cyborg body, as Stelarc's audiences envision it, from layers of electronic prosthetic devices makes it an object of defamiliarisation and fascination. The instability of its identity and the constant permeability of the shape and appearance of its organic form are subjecting Stelarc's electronically enhanced body to unpredictable bodily metamorphoses, clearly staging the body's own distortion and disfiguration. The image of the cyborg that Stelarc portrays becomes the embodiment of a futuristic scenario promoting the total exemption from the set of laws and limitations imposed on the human subject by the perishable organic human matter. The synthesis of the human and the mechanical is brought about by the hallucinating consciousness of the human subject and its inability to differentiate one from the other by its creation of a distortion effect. The interplay of human and artificial elements allows each to be viewed only

through the other, which leaves spectators uncertain whether or not what they are seeing is real. Due to the intervention of technology, the distance existing between Stelarc's human subjectivity and its technological reproductions is narrowed down, allowing the fusion of the human body with a number of electronically-manufactured mechanisms. This foregrounds the tendency of contemporary art to move beyond the confines of the staged theatrical performance to more challenging and subverting, although utopian and self-inflicting, mediums of representation.

However, it still remains to be seen whether the cyborg form that Stelarc is envisioning with the construction of an empowering due to the technologies of today's human subject can realistically be put into practice. Although the intermingling of technological mechanisms and human flesh creates multiple surfaces of meaning, it still problematises rather than reassures the viewer whether the interface between the human and the technological can be sustained. Puchner believes that "virtual bodies become ghosts, as soon as there is a power cut" (102), while the human body itself cannot survive incessant modifications. Stelarc admits to Farnell: "[W]hat I say and do is grounded in my experience, so in a sense it's constrained by the limitations of my body and the determinations of the hardware that I'm using and what interfaces are possible" (Featherstone, *Body Modification* 138). As a consequence, Stelarc's multimedia performances are in themselves paradoxical to the stance they maintain towards electronic technologies, since the bodily reconfigurations that they propose can be restrained by the incompatibility of their biological and mechanical make up. Although Stelarc's multimedia performances feature as co-operative fusions of bodies and machines, they may as well be read as self-annihilating fantasies.

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